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Veterinary Sciences

ПОЛУЧЕНИЕ ЭКОЛОГИЧЕСКИ БЕЗОПАСНОГО МОЛОКА В УСЛОВИЯХ АНТРОПОГЕННОГО ЗАГРЯЗНЕНИЯ ОКРУЖАЮЩЕЙ СРЕДЫ

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Резюме. Исследования проводились на частном фермерском хозяйстве села Сарыгайя Самухского района, в лаборатории кафедры «Технологии производства продуктов животноводства» факультета зооинженерии Азербайджанского Государственного Аграрного Университета.

В статье рассматривается эффективность скармливания сорбента «Ковелос-Сорб» в рационах дойных коров. В результате исследований установлено, что кормовая добавка с сорбционными свойствами «Ковелос-Сорб» в рационах коров обеспечивает нейтрализацию в кормах и молоке микотоксинов, способствует повышению среднесуточного удоя и жирности молока и снижению в нем числа соматических клеток.

Ключевые слова: дойные коровы, рацион, сорбент «Ковелос-Сорб», удой, микотоксины.

Экологическая безопасность продуктов питания является на сегодняшний день актуальной задачей. По экологической цепочке микотоксины попадают в организм человека. Необходимо контролировать содержание микотоксинов в кормах. Использование рациональных технологий кормления крупного рогатого скота, обоснованных новых рационов, содержащих биологически активные добавки для получения высококачественной продукции – важнейшие элементы ведения отрасли. В этом плане большой интерес представляет применение пребиотиков, пробиотиков, сорбентов [1, 3].

Одним из наиболее важных вопросов современного скотоводства является увеличение рентабельности и конкурентоспособности. Однако в практическом аспекте успешное их решение нередко тормозится проблемой низкого качества кормового сырья, так как большинство промышленных кормосмесей для животных могут изначально содержать сразу несколько контаминантов естественного и антропогенного происхождения. Микотоксины, бактериальные токсины, метаболиты амбарных вредителей; продукты перекисного окисления, тяжелые металлы, радионуклиды, нитраты, гербициды, пестициды и ряд других высокотоксичных агентов – далеко не полный список потенциально-опасных веществ, вызывающих отравления животных [2].

В настоящее время в качестве лечебно-профилактических средств, повышающих продуктивность животных и улучшающих показатели экологической безопасности производимой продукции в условиях антропогенного загрязнения окружающей среды, применяют сорбенты [4, 5].

В этой связи представляет большой научный и практический интерес комплексные исследования по изучению эффективности применения препарата нового поколения «Ковелос-Сорб» в молочном скотоводстве.

Испытания проводились на частной ферме Сарыгая Самухского района. Было отобрано две группы коров третьей лактации, аналоги по живой массе и продуктивности черно-пестрой породы по 20 голов в каждой группе.

После отбора групп был проведен уравнительный период сроком 14 дней. Условия кормления и содержания были идентичны в обеих группах. Кормление осуществлялось готовой полнорационной кормосмесью. Первая, контрольная группа коров получала основной рацион, вторая, опытная группа, получала дополнительно к основному рациону сорбент «Ковелос-Сорб» в количестве 0,1 % по массе кормосмеси. Опытный период продолжался 3 месяца. В составе кормосмеси находились корма собственной заготовки хозяйства. Перед началом опыта был проведен анализ силоса, зерносенажа и зерна плющеного на содержание микотоксинов (табл. 1).

Таблица 1 – Результаты анализа образцов кормов на наличие микотоксинов

Показатели	Корм			Норма
	силос	сенаж	зерно плющенное	
Афлотоксин В1, мг/кг	0,027	0,02	0,007	0,05
Зеараленон, мг/кг	0,09	0,04	0,04	1,0
Охратоксин А, мг/кг	0,05	0,048	0,002	0,05
Фумонизин, мг/кг	0,25	0,25	0,25	5,0
Т-2 токсин, мг/кг	0,106	0,075	0,075	0,1
Дезоксиниваленон, мг/кг	1,62	0,42	0,25	1,0

Из таблицы 1 следует, что содержание микотоксинов в изучаемых образцах кормов не превышало нормы. Однако, содержание в силосе и сенаже охратоксина

А было на границе нормы, количество Т-2 токсина в силосе превышало допустимый уровень на 5,7 %, дезоксиниваленола – на 38,3 %. В опыте были проанализированы средние показатели продуктивности животных (табл. 2).

Таблица 2 – Результаты анализа продуктивности животных

Показатели	Группа	
	1	2
Суточный удой, кг	30,3±0,9	30,5±0,7
Содержание жира в молоке, %	3,60±0,02	3,64±0,01
Соматические клетки, тыс. шт	555	504

Установлено, что суточный удой коров, при скармливании им сорбента «Ковелос-Сорб», увеличился на 0,7%, а содержание жира в молоке – на 0,04%.

Количество соматических клеток в молоке снизилось во второй группе на 10,1%.

После проведения опыта было проанализировано молоко коров на содержание Афлотоксина В1. Получены следующие показатели: в молоке контрольной группы – 0,00001 мг/кг, а в опытной – 0,000006 мг/кг, или на 66,7% меньше.

Выводы. Сорбент «Ковелос-Сорб» в дозировке 0,1% по массе кормосмеси обеспечивает нейтрализацию микотоксинов в кормах, обеспечивает повышение суточного удоя и жирности молока, снижает число соматических клеток в молоке.

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Philological Sciences

L'importance des emprunts en français

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L'emprunt est une des sources de l'enrichissement lexical. C'est un acte par lequel une langue accueille un élément d'une autre langue. Le terme *emprunt* désigne en même temps l'élément emprunté.

Les langues peuvent emprunter l'une à l'autre non seulement des mots, mais aussi des phonèmes, des affixes, des tours syntaxiques, des significations et des locutions. La lexicologie s'intéresse surtout aux emprunts de mots et de sens.

Un emprunt est donc un mot qui appartient à une langue étrangère et que l'on utilise en français (le terme anglais *sandwich*, l'italien *piano*, l'espagnol *armada*, le norvégien *fjord*, etc.). Par les emprunts qu'il fait aux autres langues, le français enrichit son lexique. Un emprunt est un mot ou une expression qu'un locuteur ou une communauté emprunte à une autre langue, sans le traduire, mais en l'adaptant généralement aux règles morphosyntaxiques, phonétiques et prosodiques de sa langue. La raison principale de l'emprunt est la nécessité pour les utilisateurs d'une certaine langue de nommer une réalité nouvelle pour eux. Celle-ci vient de la communauté linguistique source avec sa dénomination. Au cours de son histoire, le français a puisé de nouveaux mots dans de nombreuses langues. Aujourd'hui, ces mots n'ont plus l'apparence de mots étrangers. On distingue parfois des emprunts *internes* et *externes*. Les premiers sont des unités prises à l'argot, aux dialectes, aux parlers locaux, ainsi que des mots qui passent d'un domaine à l'autre (l'informatique a emprunté *menu* à la restauration, *complexe* a passé de la psychanalyse à la langue générale). Les emprunts externes sont des éléments pris à une langue étrangère que nous appellerons des « emprunts proprement dits » et qui constituent l'objet de notre étude

Plusieurs emprunts nationaux sont émis au cours de l'histoire économique de la France moderne. Ces emprunts nationaux ont lieu en temps de guerre lorsque les finances publiques sont mises à mal, ainsi qu'en temps de paix lorsqu'il faut lancer certains projets et que la dette publique reste élevée. Si l'État manque de trésorerie et que les impôts ne suffisent plus, un emprunt devient parfois nécessaire.

Pour inciter la population à souscrire massivement à ces emprunts, les gouvernements ont fait œuvre de propagande, notamment à travers des affiches qui font appel à la fibre nationaliste. Les apports d'autres langues au lexique français proviennent en grande majorité du latin et du grec, bien que l'on trouve aussi des mots issus de l'anglais, de l'arabe, de l'espagnol et d'autres langues

Le latin qui demeure un cas plus complexe dans la mesure où une grande partie des mots de cette langue ne provient pas d'un emprunt, mais d'une évolution phonétique. Cela signifie que le français possède des emprunts lexicaux dans une proportion de 19,7 % dans l'ensemble du dictionnaire. Ces mots témoignent des relations que les locuteurs du français ont entretenues avec les autres peuples au cours de leur histoire, notamment en ce qui concerne les guerres, la colonisation et le commerce. Selon les langues prêteuses, la quantité des mots peut varier énormément, ainsi que la durée de leur influence sur la langue d'arrivée. Pour le français, la figure

ci-dessous donne un aperçu par ordre décroissant des langues prêteuses au cours de l'histoire, en commençant par le grec ancien, l'anglais, l'italien, l'allemand, etc.:

Les langues anciennes qui ont influencé le français sont le latin, le grec et le francique, comme dans une moindre mesure le gaulois. Quant on parle du latin, il s'agit d'abord du latin populaire, celui parlé par le peuple, puis du latin classique au moment de l'Empire, ainsi que du grec ancien et de la langue celtique des Gaulois conquis par les Romains, pour finir avec le francique, une langue germanique parlée par les Francs qui ont envahi en 450 le nord de la Gaule romaine.

Nous savons que la majorité des mots français viennent du latin, comme c'est le cas pour les autres langues romanes (espagnol, portugais, catalan, occitan, italien, sarde, roumain, etc.). On distingue deux sortes d'origine latine. Les mots d'origine populaire proviennent de la transformation des mots latins employés par le peuple employant une langue familière appelée «latin vulgaire». Ces mots, aujourd'hui devenus français, sont issus du latin parlé après avoir subi, durant quelques siècles, de lentes transformations phonétiques. Ainsi, nous avons maintenant les mots suivants en français (*chanter, rive, lent, clarté, cheval*, etc.). Le latin populaire ou vulgaire se distingue du latin classique, qui désigne la forme du latin employé dans la Rome antique, notamment dans sa littérature considérée comme «classique» et qui faisait autorité à cette époque. Son utilisation s'est étendue du I^{er} siècle avant notre ère jusqu'au début du I^{er} siècle de notre ère. Quant au latin populaire, il a été parlé du III^e siècle au IX^e siècle. Voici quelques exemples d'évolution phonétique à partir du latin jusqu'à aujourd'hui :

Aujourd'hui, plusieurs langues européennes, dont l'anglais, ont recours aux racines latines et grecques pour créer de nouveaux mots :

- télévision (grec *tele* : «loin») + latin *vision* («action de voir»);
- automobile (grec *auto* «soi-même») + latin *mobilis* («mobile»);
- cancérigène (latin *crabe*) + grec *genos* («gène»);
- mammectomie (latin *mammo* «mamelle») + ectomè («ablation»);
- antibiotique (latin *anti* «contre») + grec *biotikos* («vie»);
- audiométrie (latin *audio* «entendre») + grec *metrikos* «mesure»);
- cartographe (latin *charta* «carte») + grec *graphos* («écrire»);

Mentionnons enfin que le latin est encore enseigné comme langue morte, de façon obligatoire ou facultative, en France, en Belgique, en Italie, en Allemagne, en Suède, etc.

Les causes des emprunts apparaissent comme intimement liées aux conditions socio-historiques, particulièrement politiques et économiques, qui font évoluer les situations sociolinguistiques. Nous savons, par exemple, que la langue anglaise a intégré un grand nombre de mots d'origine française, mais il ne s'agit pas d'un mouvement naturel d'échanges entre les langues française et anglaise, c'est en fait parce que les Vikings scandinaves devenus des Normands se sont francophonisés avant de conquérir l'Angleterre en 1066 à la suite d'une invasion militaire. Avec les siècles, la situation a été inversée, notamment depuis le milieu du XX^e siècle, le prestige de l'anglais ayant suivi la progression ascendante du pouvoir socio-économique des États-Unis. Comme il est facile de le constater, c'est presque toujours la langue dont le statut socio-économique est le plus faible qui emprunte massivement à la langue bénéficiant du plus grand prestige et de la plus grande force économique. Aujourd'hui, non seulement le français est fortement touché par l'anglais dans son évolution, mais c'est également le cas d'un très grand nombre de langues, que ce soit

le portugais, l'allemand, le suédois, l'hindi, le japonais, etc.

Dès que deux cultures se trouvent en contact, il y a échanges d'idées, d'informations, de produits et en général d'éléments de vocabulaire. Par exemple, dans l'Antiquité, les Grecs ont créé le concept de démocratie et le mot qui le désigne a été emprunté plus tard par le latin avant de passer au français. Le rôle de l'emprunt linguistique comme processus d'enrichissement des langues demeure incontestable. L'emprunt est considéré comme tel surtout lorsque ce

phénomène ne touche que superficiellement les structures de la langue d'arrivée. On peut admettre que les emprunts viennent généralement combler un vide pour désigner de nouvelles réalités. L'emprunt devient alors non seulement légitime, mais nécessaire.

Il est possible que des emprunts étrangers ne servent aucunement à combler une lacune d'une langue, dans ce cas-ci le français. On a alors des doublets dont la contrepartie française est souvent connue, comprise, mais pas nécessairement employée. Ce sont parfois des mots anglais que les locuteurs continuent de préférer aux propositions officielles des organismes linguistiques et qui, étant donné la fréquence de leur emploi, vont probablement passer dans la norme. Pour de nombreux locuteurs, un mot anglais, même s'il fait double emploi avec un équivalent français, peut être perçu comme «normal», car il répond à un mimétisme qui est moins de nature linguistique que social, c'est-à-dire qu'il correspond à un souci de ne pas se démarquer des autres ou de ne pas passer pour un «policier de la langue». C'est dans ce sens que le recours aux emprunts peut ne plus être une source d'enrichissement, mais un facteur d'assimilation culturelle et linguistique.

Quand on parle des emprunts, on fait souvent référence aux seuls emprunts lexicaux, lorsque quelqu'un a recours aux mots étrangers pour les intégrer dans sa propre langue. En vue de simplifier le processus, on admettra qu'il existe trois types d'emprunts :

1. *L'emprunt direct* : quand un mot ou un groupe de mots est repris sans modification (*staff, shopping, cannelloni*, etc.) ou avec adaptation phonétique ou orthographique.

Exemples: *artéfact, démotion, cafétéria, boléro, cannelloni*, etc.

2. *Le calque* : quand le mot ou le groupe de mots est traduit, plus ou moins fidèlement, dans la langue d'arrivée.

Exemples: *salle de séjour* < "living-room" ; *lune de miel* < "honeymoon".

3. *L'imprunt sémantique* : quand un sens d'origine étrangère est ajouté à un mot de la langue d'arrivée.

Exemples: *réaliser* > «se rendre compte» > angl.: *to realize*; *avoir les bleus* < "to have the blues" ; *ce n'est pas ma tasse de thé* < angl.: "it's not my cup of tea"; *gratte-ciel* < "skyscraper").

Les plus nombreux sont les emprunts à l'anglais, de Grande-Bretagne ou des Etats-Unis, appelés emprunts anglo-américains. On les trouve surtout dans la langue de la presse écrite ou parlée, ainsi que dans certains vocabulaires scientifiques ou techniques (celui de l'informatique, par exemple) : aérobie, airbag, autoreverse, barefoot, best of, chromodynamique, clip, déboguer, e-mail, horse-ball, hypermédia, light, manager, mastère, narcodollars, novélisation, raft, rafting, road movie, snowboard, talk-show, vidéoclub, zapper, zappeur, zapping etc.

Certains néologismes sont empruntés à des langues étrangères autres que l'anglais :

- à l'afghan – taliban
- à l'allemand – blitzkrieg
- à l'arabe – ayatollah, djihad, halal, intifada
- au chinois – tai chi, kung-fu
- au coréen – taekwondo
- à l'espagnol – canyoning, tapas
- à l'hindi – bandana
- à l'italien – antipasti, panini, pizzaïolo, tifosi
- au japonais – karaoké, nunchaku, sumo
- au russe – glasnost, nomenklatura, perestroïka, etc.

Nombre d'emprunts récents ont leurs équivalents français recommandés officiellement et qui sont d'un emploi courant :

broker – courtier, fast-food – prêt à manger, jingle – sonal, motor-home – autocaravane, packaging – conditionnement, software – logiciel, tie-break – jeu décisif, etc.

Parfois un néologisme apparaît sous forme de calque qui présente la transposition de la structure morpho-syntaxique d'une langue étrangère par traduction. En voilà quelques exemples de calques créés en français à partir des modèles anglais :

to finalize > finaliser

prepaid > prépayé

teleshopping > téléachat

venture capital > capital-risque

white collar > col blanc

zero growth > croissance zéro, etc.

Aujourd'hui, les emprunts, notamment à l'anglais, font souvent l'objet de critiques et pas uniquement pour le français, mais également pour le portugais, l'allemand, le polonais, l'arabe, etc. Évidemment, les emprunts plus anciens comme *film* ou *cafétéria* ne sont pas rejetés, et ce, d'autant plus lorsqu'ils n'ont tout simplement pas d'équivalent dans d'autres langues (*jeans, tee-shirt, aluminium, trust, etc.*).

Le problème se pose lorsque l'emprunt semble manifestement inutile parce qu'un ou plusieurs équivalents sont en usage en français. Par exemple, les doublets

suivants: *building/immeuble, staff/personnel, cockpit/cabine, offshore/extraterritorial, etc.*).

Cependant, le critère de l'utilité ou de l'inutilité n'est pas nécessairement facile à appliquer. Il faut aussi évaluer l'usage et la fréquence de ces termes nouveaux.

Le vocabulaire héritaire contient aussi des mots provenant des langues étrangères passés en français entre XV et le XX siècle. Au cours de son histoire le français a emprunté à toutes les langues avec lesquelles il a été en contact—commerciales, culturelles, politiques etc.

L'italien a apporté un grand nombre de mots au français. Mais c'est surtout le grand mouvement de la Renaissance. (*adagio, alarme, altesse, anti-chambre, appartement, aquarelle, attaquer, baroque, cavalier, coupole, dessin, diva, espion, grandiose, mezzanine, moche, mosaïque, satin, soprano, tenor, trio...*)

De l'Italie plus contemporaine le français tient—*autostrade, espresso, fascisme, fasciste.*

L'espagnol a fourni de nombreux termes au français dans les anciennes chansons de geste (*alcove, anchois, artichaut, camarade, canot, disparate, fanfaron...*)

Les mots portugais (*mandarin, fétiche, caravelle, acajou, bambou, banane.*)

A l'arabe (*élixir, orange, safran, guitare, calife...*)

Les mots allemands (*loustic, choucroute, accordion, boulevard, dalle, élan, balle, bière, blottir, cauchemar, halte, huguenot, trinquer, obus, sabre, flinquer...*)

De nombreux lexiques techniques présentent des mots anglais :

Commerce—*discount, facturing, léasing, sponsor, marketing.*

Spectacle—*strip-tease, jazz, rock, disk-jockey, happening.*

Sport—*volley-ball, football, bowling, karting, skating, surf.*

Cinéma—*caméraman, script, travelling, western.*

Journalisme—*gallup, reporter, flash.*

Informatique—*hardware, software.*

Le camping-car—voiture camionnette aménagée pour le camping. Chaque été, ils partent en vacances en camping-car

Une interview—rencontre entre un journaliste et une personne qu'il interroge

Le 14 juillet, le président de la République française accorde une interview aux journalistes français.

Des com-flakes—flocons de maïs grillé (Tous les matins les enfants mangent des com-flakes avec du lait.

Le français a emprunté aux dialectes les mots aussi.

Les chiffres, écrit Pierre Giraud, permettent de distinguer trois grandes périodes—le Moyen Age—la Renaissance classique - les Temps Modernes.

L'emprunt s'est pratiqué à toutes époques et le français a puisé aux sources les plus diverses.

La thèse bien connue d'après laquelle l'emprunt est dicté par le besoin ne doit pas être comprise et interprétée d'une manière absolue, car ce besoin est de double nature, linguistique et individuelle. Et comme le prouvent les données de la plupart des langues, c'est le besoin linguistique qui est décisif et qui prédétermine le plus souvent l'emprunt et son assimilation

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The structure of speech acts and interactive units of business discourse

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Abstract

This article delves into the intricate realm of speech acts, exploring their origin, classification, and application in linguistics, with a focus on their dynamic nature. Rooted in the philosophy of language, speech act theory emerged alongside analytical philosophy, addressing fundamental questions about language. It emphasizes intentional actions through verbal expressions, serving as core units in communication. J.L. Austin's concept of performatives highlights sentences actively performing actions, transcending mere description. The theory delineates three stages: illocutions (speaker's intention), locution acts (expression stages), and perlocutions (impact on the addressee). J. Searle expands the classification, introducing assertives, directives, expressives, commissives, and declaratives. Structural differences lead to direct and indirect speech acts. Pragmatics further explores the effective selection of linguistic means, communicative cooperation principles, and the distinction between illocutionary and perlocutionary acts. G. Grice contributes implicature, distinguishing conventional and unconventional implicatures, highlighting the importance of mutual understanding and effective communication.

Key Words: Speech Acts, Illocution, Locution, Perlocution, Communicative Cooperation, Implicature, Conventional Implicature, Unconventional Implicature, Business Discourse, Classification of Speech Acts, Direct Speech Acts, Indirect Speech Acts.

In expressing their thoughts, individuals go beyond crafting linguistically accurate expressions; they actively engage in purposeful actions through these linguistic forms (Yule, 1996:47). These expressions serve as the foundational elements in the speech relationship, acting as the core units where the communicative objectives of the speaker materialize, simultaneously influencing the addressee. The formal term for the manifestation of intention through expression is a 'speech act,' as explained by Churchelauri (2020:23). This concept underscores the dynamic nature of communication, highlighting that language not only conveys meaning but also functions as a vehicle for intentional effects on the interlocutor.

Originating within the realm of philosophy of language, speech act theory initially sought to elucidate how language functions. Subsequently, this theory has found wider applications within the field of linguistics. Its inception aligns with the development of analytical philosophy, characterized by a profound interest in language and a quest to answer fundamental questions about language itself. Notably, visionaries such as M. Frege, B. Russell, and L. Wittgenstein proposed the existence of what can be termed 'atomic propositions'—words whose meaning is intricately tied to a reference, specifically an object. According to this view, sentences containing these words are deemed true or false based on their alignment or misalignment with the facts of reality." (Classification of speech acts, theoretical foundations of research, 15.05.2023)

A speech act is a deliberate verbal expression performed in accordance with the principles and rules of speech behavior accepted within a given society. The key characteristics of a speech act include:

intention
purposefulness
conditionality

According to Austin (1962:14), the successful implementation of a speech act necessitates:
The existence of an acceptable situation for the participants involved in the speech act.
Equal involvement of participants in the process of perceiving the act, ensuring accurate and purposeful transmission and understanding of information.
Appropriate authority vested in the individual making the application.

J.L. Austin posited that a sentence can either 'describe' a state of affairs or 'describe something about some fact' that may be true or false. Austin, an English philosopher, introduced the concept of 'performatives' to refer to sentences that go beyond mere description; rather, they are sentences that perform actions (Austin, 1962:6). In such expressions, it becomes evident that the speaker is not merely describing their action but actively performing it.

According to Austin's theory, a speech act comprises three stages:

1) **Illocutions** - Illocutions reflect the speaker's intention, indicating not only the meaning of the expressed sentence but also aligning with the communicative intent of the speaker. An illocutionary act is undertaken for a specific communicative purpose, such as offering, explaining, making a statement, or conveying information, and is assessed from a non-linguistic standpoint. This purpose is often termed the 'illocutionary force' of the utterance (Yule, 1996:48).

To discern the illocutionary force, i.e., to elucidate the speaker's aim, attention is directed toward verbs that explicitly denote the performed illocutionary act. Examples of such verbs include 'command,' 'ask,' 'inquire,' and the like (Yule, 1996:49).

2) The **locution** act, representing the speaking force of an utterance, involves a multi-step process, and the stages vary across linguistic perspectives. According to the English linguist John Lyons (1977:730-731), the locution act encompasses three stages:

The first stage involves outlining an expression, which includes the physical act of speech—creating symbols in writing or producing sounds in oral communication.

The second stage entails constructing a sentence adhering to the grammatical syntax rules of a specific language.

The final step is contextualization, where the expression is placed within a suitable context to give it a real form that ensures understandability.

3) **Perlocutions** involve influencing the addressee's thinking and actions, with the perlocution act directed towards the addressee and focused on the impact the utterance will have on them.

J. Searle, an American philosopher, further developed J. Austin's ideas in his monograph 'Speech Acts: An Essay in the Philosophy of Language' and in several articles, including 'What is a Speech Act?' According to Searle, the fundamental characteristic of any linguistic communication is an act. In Searle's perspective, the unit of communication transcends individual words or sentences; it lies in the creation of a specific example during a speech act. Searle posits that the generation of a particular sentence under specific conditions constitutes an illocutionary act, and it serves as the minimal unit of linguistic communication. ." (Classification of speech acts, theoretical foundations of research, 15.05.2023)

Searle, in his work (Searle, 1975:354), slightly modified the classification of speech acts, identifying five main groups of language actualizations:

Assertives (Evidences): In these speech acts, the speaker asserts the truth of what is said, conveying a belief in its accuracy to some extent.

Directives: This category involves speech acts where the speaker attempts to influence the listener to perform certain actions. Various forms, such as warnings, requests, advice, permissions, instructions, commands, and requests, may be employed, encompassing both positive and negative aspects.

Expressives: These acts reveal the speaker's attitude toward a past action or reflect the speaker's psychological state. Expressives include acts expressing thanks, regret, forgiveness, requests, congratulations, gratitude, greetings, oaths, complaints, and apologies.

Commissives: These acts involve the speaker committing to perform an action as expressed in the utterance. Examples include offering, promising, swearing, denying, and threatening, often associated with preserving one's face.

Declaratives: These acts encompass statements that declare a person guilty or pronounce a couple as married in the matrimonial home. The institutional role of the speaking subject, specifically their authorization to make the statement, plays a crucial role in declaratives (Basic Provisions of the Theory of Speech Acts, 20.05.2023).

In addition to their general functions, speech acts can also be classified based on their structure. The structural differences among the three main types of sentences—narrative, interrogative, and commanding—are highlighted (Yule, 1996:54).

When there is a direct connection between the structural form of a sentence and its intended function, we categorize it as a direct speech act. Conversely, when there is no apparent connection between the structural form and function, the speech act is termed an indirect speech act.

Currently, speech act theory stands out as a prominent research subject within the realm of pragmatics. Unlike theories that view the basic unit of communication as a sentence or any utterance, speech act theory emphasizes the execution of specific actions, such as assertion, request, question, command, or apology. It's crucial to note that the action itself, the speech act, should not be confused with the sentences or linguistic expressions uttered during its performance.

In its examination of language and speech acts, pragmatics pursues distinct objectives, focusing on the impact of speech on the listener, its immediate effects, and its validity within a specific time and situation. The speaker's concern lies in the effective selection of linguistic means to achieve the intended goal, the strategies employed, and adherence to conditions of truth. This approach gives rise to principles of communicative cooperation and allows the listener to draw meaningful conclusions from the uttered expressions (Kubriakova, 1986:15).

Speech acts, according to J. Austin, encompass illocutionary aspects, which represent the various acts performed through speech. These are distinct from perlocution acts, where the focus is on the effect an utterance has on the addressee. In perlocution, the emphasis is on the changes in the behavior and state of the addressee resulting from understanding, rather than the addressee's understanding of the utterance itself. It is crucial in speech act theory to emphasize the sharp distinction between the illocutionary act, representing the speech act itself, and the perlocution act, which may not be achieved solely through linguistic means.

The theory of speech acts saw further development in the contributions of G. Grice. According to Grice, the information conveyed in an utterance can be divided into two parts: firstly, the explicit topic of discussion, and secondly, additional information that the listener can infer from the utterance. Grice introduced the term 'implicature' to distinguish this concept from logical thought. Implicature is the result of an inference made by the listener from the antecedent in the text and can be conventional or unconventional. Notably, Grice identified two types of implicature: 'relationship implicature' and 'discourse implicature'.

Conventional implicature encompasses everything in an utterance that is not directly related to the true conditions of the informational aspects conveyed by the meaning of the words and forms. Conventional implicatives are closely tied to the subject matter of the sentence. In contrast,

unconventional implicatives have an indirect connection to the linguistic content. They arise from the content of the sentence, and their existence is linked to the participants of the speech act being connected with each other for the common purpose of communicative cooperation.

The principle of cooperation, as outlined by Grice (1985, 217-236), implies that the addresser must adhere to certain rules during the generation of the text. There is an orientation towards the recipient, and efforts are made to create favorable conditions for the recipient to understand the text. This principle underscores the importance of mutual understanding and effective communication in the cooperative nature of speech acts.

Conclusion

In conclusion, this exploration of speech acts elucidates their significance in communication dynamics. From their philosophical origins to linguistic applications, speech acts represent intentional actions, emphasizing the interplay of intention, purposefulness, and conditionality. The text delves into the nuanced classifications by Austin and Searle, shedding light on illocutions, locution acts, and perlocutions. Additionally, the discussion on implicature by G. Grice underscores the role of additional inferred information in communication. The emphasis on communicative cooperation principles and pragmatic considerations further enriches our understanding of speech acts, highlighting their pivotal role in effective verbal expression and mutual understanding.

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БАҚ дискурсындағы ЭМОТИВТІ- бағалауыштық лексиканың ықпал етуші ҚЫЗМЕТІ

Әбсаттар Әділ Маратұлы

гуманитарлық ғылымдар магистрі, Қ.И. Сәтбаев атындағы Қазақ ұлттық техникалық зерттеу университеті, Алматы қ., 050013, Қазақстан Республикасы

Бүгінгі таңда ақпараттық технологиялардың қарқынды дамуының нәтижесінде ақпарат қуатты күшке айналып отыр. Ақпарат тасқынының әсерімен жаңа ақпараттық қоғам орнады. Соның нәтижесінде ақпарат қоры қоғамның ғылыми-техникалық жағынан да, әлеуметтік жағынан да дамуына да ықпал етіп отыр. Қазіргі кезде телеграф, телефон, радио, теледидар сияқты ақпарат құралдарының орнына электронды пошта, ватсап желісі, түрлі әлеуметтік желілер қолданылады. Ақпараттық технологияда дыбыс, кескін, әріп-сан мәліметтерін пайдалана отырып, ақпаратты мультимедия немесе гипермәтіндер арқылы жеткізеді. Байланыс құралдарын компьютерлік желілермен байланыстыру арқылы ауқымды мәліметтер жақсы сақталып, тез өңделеді. Халықаралық интернет желісіне қосылу арқылы Жер ғаламшарының кез келген бөлігіндегі ақпарат көзімен таныса аламыз, әлемдік қауымдастықтың ақпараттық кеңістігіне ене аламыз. Ақпарат көпшілікке қолжетімді болды. «Ақпараттық қоғам» «киберкеңістік» немесе «ақпараттық сфера» («инфосфера») деп аталатын бұрын-соңды болмаған ақпараттық инфрақұрылым тудырды. Ақпараттық сферада алуан түрлі, көп өлшемді ақпарат жинақталып, кодталады, сақталады, белгілі бір адамдардың мүддесіне сәйкес өңделеді.

Бұқаралық ақпарат құралдары – баспасөз, радио, телевизия, фильм, интернет арқылы берілетін ақпарат ауызша, жазбаша мәтін, бейнекөрініс, дене қозғалысы, дыбыс, әуен, т.с.с. негізінде семиотикалық кешен құрайды. Алуан түрлі семиотикалық жүйелердің жиынтығынан құралған ақпарат түрлі құралдармен (аудио, бейнежазба, компьютер, т.с.с.) жеткізілетіндіктен, бұқаралық ақпарат құралдарының ықпалы күшті, тілі әсерлі болады. Бұқаралық ақпарат құралдары ақпарат тарата отырып, қоғамдық пікір қалыптастырады. БАҚ арқылы берілетін хабарламада қандай да бір ақпаратпен бірге автордың бағасы да көрінеді. Ол жеке адамның көзқарасы немесе белгілі бір әлеуметтік топтың ұстанымы болуы мүмкін.

Білім мен ақпарат өзара байланысты болғанмен, әрқайсысының өзіндік ерекшелігі бар. Өзге адамдарға берілетін, коммуникацияға түсетін білім ғана ақпаратқа айналады. Сондықтан ақпарат коммуникация жүйесінде әлеуметтенген білім ретінде сипатталады. Әлеуметтік ақпараттың коммуникативті қызметі маңызды орын алады.

Байланыс жүйесі бес компоненттен тұрады:

- 1) ақпарат көзі немесе хабарлама;
- 2) хабарламаны байланыс арнасы бойынша беруге жарамды сигналдарға түрлендіретін (кодтайтын) таратқыш;
- 3) байланыс арнасы, яғни қабылдағыш пен таратқышты қосатын орта;
- 4) сигналдарды қабылдайтын, хабарламаның кодын ашатын қабылдағыш;
- 5) адресат, ақпаратты алушы.

Медиа дискурс қоғамдық қарым-қатынастың кең саласына қызмет ететін функционалдық стильдер қатарына жатады. Медиа дискурс маңызды қоғамдық-саяси процестерді, оперативті деректерді идеялық-саяси жағынан сараптап, эмоционалды-бағалауыштық мәнде бейнелейтін көпшілікке арналған саяси мәтіндерден тұрады.

Функционалды стильге қатысы тұрғысынан алғанда, медиа дискурс публицистикалық стильге жатады. Ақпарат жеткізу, ықпал ету қызметін атқара отырып, баспасөз дискурсы ұжымдық тілдік тұлғаның үнемі дамып, толығып отыратын ғалам бейнесінің синхронды бөлігі болып табылады. Публицистикалық стильдің өзіндік қызметі бар. Дәлірек айтсақ:

- *Ақпараттық қызмет* автордан публицистикалық мәтіннің, яғни автордың өзі үшін емес, адресат үшін қызықты әрі қажетті мәліметтер болуы талап етіледі. Эстетикалық нормалар ақпараттың дәл әрі нақты болуын қадағалайды.

- *Ықпал ету қызметінің* мақсаты қоғамдық мақсаттарға қайшы келмей, қатал субъективті баға ретінде қабылдануына байланысты.

- *Коммуникативті қызмет* мәдени-тілдік нормалардың басым көпшілігін кез келген стильде айқындайды. Публицистикада тілдің түсінікті және бейнелі болуына ерекше мән беріледі. Мәтіннің қабылдаушы адресатқа түсінікті болуы көзделіп, жеке адамның ерекшеліктері ескеріледі.

- *Экспрессивті қызметті* жүзеге асыруда тілдік нормалардың сақталуы қадағаланады. Көңіл-күйді білдіру публицистің алдына қойған ең бірінші мақсаты болмауы тиіс, саясат не әдеп арнасынан шығып кетпеуі шарт.

- *Эстетикалық қызмет* әдеби стильмен салыстырғанда, публицистикалық стиль үшін міндетті емес, алайда мүмкіндігінше мәтіннің эстетикалық сапасына журналист те, шешен де назар аударғаны жөн.

Публицистикалық стильдің хабарлау және ықпал ету қызметтері басқа функционалдық стиль түрлерінен кездесіп отыратынын айта келіп, О.Бүркітов публицистикалық шығармалар тілінің мынадай негізгі ерекшеліктерін көрсетеді: 1) берілген материалдың деректілігі және ресми деректермен сәйкестігі; 2) берілген материалдың қалың көпшілікке түсініктілігі; 3) берілген материалдың оқырманға әсерлілігі.

Ақпараттық қызмет көпшілік оқырманға, тыңдаушылар мен көрермендерге арнап ақпарат тарататын болғандықтан, хабарлау ниетінде туған қоғам үшін маңызды мәселелер мен көзқарастар жайлы авторлардың хабарлама пікірінен тұрады. Қоғамда болып жатқан маңызды нәрселер жайлы ақпараттандыруда публицистикалық мәтіндегі екінші бір маңызды қызмет – ықпал ету қызметіне сүйенеді. Автор пікірінің ашықтығымен, баға берушілігімен позициясының нақтылығымен, публицистикалық стиль көркем әдебиет стилінен ерекшеленіп тұрады. Т. Я. Солганик публицистикалық стильді жеке шығармай, газет, теледидар, радио, қоғамдық-саяси журналдардың тілін, баяндама, т.б. қамтитын газеттік-публицистикалық стиль деп саралау қажеттігін айтады [1, 63]. Техникалық мүмкіндігі мол, коммуникация құралдарының көпшілігі адамдардың ақыл-ойы мен сезіміне әсер ете отырып, ақпарат береді, насихаттайды, қоғамдық пікір қалыптастырады, нормаларды қалыптастырады.

Публицистиканың ақпараттық, аналитикалық және көркем әдеби жанрлары бар. Публицистикалық дискурстың негізгі міндеті – жаңалықты хабарлау, оларға түсініктеме беру, фактілер мен оқиғаларды бағалау. Осылайша, публицистикалық мәтіндерде тілдің екі функциясы – ақпараттық (ақпарат беретін) және әсер ететін – жүзеге асады. Бұл – медиа дискурстың ерекшелігі. БАҚ басылымдары қоғамның қажеттілігіне, сұранысқа сәйкес түрлі өзгерістерге түсіп отырғаны белгілі. Құндылықтарды тану екі түрлі бағытта болуы мүмкін:

- 1) жалпыға ортақ, көпшілік қабылдаған құндылықтар;
- 2) автор қабылдауында құндылық ретінде бағаланғандары.

БАҚ-тағы лингвистикалық өзгерістер экстралингвистикалық факторларға да негізделген: БАҚ-тың қоғамдағы мәртебесі мен қызметінің өзгеруі, демократиялық еркіндік, цензураның жойылуы, қоғамның саяси, идеологиялық бөлінуінен БАҚ жүйесінің қайта құрылуы, БАҚ арасындағы бәсекелестік қатынастардың дамуы, аудиторияның

коммуникативтік мәртебесінің өзгеруі. медиа дискурс осы өзгерістерге тез бейімделіп, өзгерді.

Әрбір бұқаралық коммуникация актісінде төрт компонент бар: хабарлаушы субъект, қабылдаушы тұлға, хабар — оның мазмұны мен тұрпаты, коммуникация құралы. Журналистің белсенділігі ақиқат болмысты танып-білуінен ғана емес, ол туралы өзіндік пікір білдіруінен көрінеді. Танымдық әрекетінің нәтижесіндегі ақпарат құқықтық, саяси, діни, эстетикалық, этикалық, адамгершілік, көркем т.с.с. аксиосфералардың құндылықтарымен байланыстырылады.

Медиа дискурстың негізгі қызметі – әсер ету, ықпал ету. Сондықтан Медиа дискурста ақпараттың берілуі, оны жеткізуде қолданылатын тілдік құралдар да қатаң сұрыпталуы керек. Осыған байланысты зерттеуші Н.Уәли: «Автор өзі үшін емес, тыңдаушы (оқырман) үшін сөз саптайды. Сөз авторының қарама-қарсы жағында мәтінді қабылдаушы (адресат) тұрады. Адресат жеке адам, көп адам болуы ықтимал. Сонымен қатар адресат уақыт, кеңістік жағынан автормен тұспа-тұс келмеуі немесе бетпе-бет отыруы мүмкін. Сонымен қатар адресат белгілі бір мақсатқа орай жиналған шаршытоп болуы (ғылыми конференция, поэзия кеші, бала тәрбиесі, денсаулық күтімі т.б. жағдайында дәріс тыңдаушылары), я болмаса белгілі бір мақсат көздеп жиналмаған шаршытоп (мысалы, митинг, жиын, саяси акциялар кезіндегі жиналыстар т.б.) түрінде де бола алады. Автор мен адресаттың білім деңгейі әртүрлі, олар бір саланың немесе әр басқа саланың маманы т.б. болуы мүмкін. Міне, бұл айтылғандар – тілдік емес мәнділіктер. Коммуникациядағы осы аталған тілдік емес құрылымдардың автор-адресатқа ықпалы ерекше болатыны белгілі. Коммуникациядағы тілдік емес құрылымдарды ескере білген коммуникатор сөйлеген (жазған) сөзінің құрылымын адресат факторына қарай бейімдеп отырады. Олай болмаған жағдайда сөз адресін таппауы, коммуникация сәтті, ойдағыдай аяқталмауы мүмкін. Адресат факторын ескеру сөздің (речь) тілдік құрылымына енетін таңбаларды дұрыс, тиімді, дiттеген мақсатқа орай таңдауға ықпал етеді», – деп жазады [2].

Медиа дискурстың аса маңызды қызметтерінің бірі – хабарлау. Газет қоғамдық қызығушылық туғызарлық нәрселерді басты назарға алып, барынша кең ауқымда бейнелейді. Тілші қандайда бір адамның не болмаса азғантай топтың атынан емес, миллиондаған пікірлестердің сөзін, позициясын сөйлейді. Медиа дискурстың қызметі идеологиялық бағытына байланысты. Медиа дискурс автор пікірінің ашықтығымен, баға берушілігімен, позициясының нақтылығымен ерекшеленіп тұрады. Әрі осы ашық баға берушілік белгісі – публицистикалық тілдің маңызды қасиеті саналады. Медиадискурс ұжымдық адресант, бұқаралық адресат, арнайы байланыс арнасы, қашықтан байланысу, коммуникативті сипаттағы түрлі жүйелер, саясат пен адамдардың арақатынасы, ашық көрсетілмеген негізгі мақсат сияқты прагматикалық бөліктерге байланысты болады.

«Қазіргі қазақ медиа-мәтінінің прагматикасы (қазақ баспасөз материалдары негізінде)» атты еңбегінде профессор Қ.Есенова газет мәтінінде адресанттың белгілі бір прагматикалық ұстанымы көрініс табатынын айта келіп, зерттеушілер оны 3 түрге – ақпараттық ұстаным (мәліметті іріктеп ұсыну); фатикалық ұстаным (материалды оқырман назарын аударту үшін пайдалану); манипулятивтік ұстаным (мәтінде баяндалатын оқиғаларға қатысты оқырман көзқарасын қалыптастыруды мақсат ету) жіктейтінін ескертеді [3, 18]. Зерттеуші жазбаша түрдегі газет мәтінін «біріншіден, сондағы адресанттың прагматикалық ұстанымын жеткізуші көп қырлы, терең мәнді, имплицитті түрде жеткізілетін астарлы ойға негізделген күрделі прагматикалық бірлік, екіншіден, қоғам мүшесі болып табылатын адресатқа психика-эмоционалды жағынан әсер ететін, сөйтіп белгілі бір деңгейде оның әлеуметтік мінез-құлқын реттеуге қатысатын маңызды прагматикалық құрал түрінде сипаттайды. Қазіргі қазақ тіліндегі Медиа дискурстан ақпараттық ұстаным (мәліметті іріктеп ұсыну); фатикалық ұстаным (материалды оқырман назарын аударту үшін пайдалану);

манипулятивтік ұстаным (мәтінде айтылатын оқиғаларға қатысты оқырман көзқарасын қалыптастыруды мақсат ету) сияқты прагматикалық ұстанымдар қолданылады.

Эмотивтік-бағалаушы лексикада адамның әлемге деген көзқарасы, дүниетанымы көрінеді. Қандай бір нысанға қатысты пікірі жинақталып, адамның соған қатысты ұстанымы, пікірі байқалады. Нысанды түрлі қырынан сипаттай отырып, адам оған баға береді, қаншалық пайдалы не зиян екенін нақтылайды. Соған сәйкес аксиологиялық, эмоционалдық тұрғыдан бағалайды. Эмотивтік-бағалаушы бірліктерді пайдалана отырып, тілдік тұлға белгілі бір нысан туралы ұстанымын білдіреді, діттемін (интенция) жеткізеді, коммуникативтік қажеттілігін өтейді. Осы тұрғыдан алғанда, эмотивтік-бағалаушы лексиканы антропоэзектік тұрғыдан сипаттауда когнитивті-прагматикалық ерекшелігіне; тілдік тұлғаның ақиқат болмысты аксиологиялық, эмоционалдық тұрғыдан жіктеуі; эмотивтік-бағалаушы бірліктерді дискурста дұрыс қолдана білуі; эмотивтік-бағалаушы бірліктер қолдану арқылы тілдік тұлғаның айтайын деген ойы, діттемі, тілдік тұлғаның тілдік құзыреті, психологиялық ерекшелігі, мәтіннің ұйысуы сияқты мәселелерге мән беріледі.

Аксиологиялық жүйе – жеке адамның не ұжымның (қоғамның) ғалам бейнесінің бөлігі болып табылатын тұрақты не өзгермелі құндылықтар жүйесі. Ментальді-психологиялық құбылыс ретінде аксиологиялық жүйенің өзіндік ерекшеліктері болады:

1. Терең мәнділік. Тұрақты құндылықтар туралы пікір қандай да бір архетиппен байланысты болады. Архетип аңызға негіз болуы мүмкін.

2. Сатылай байланыс. Философиялық, лингвистикалық еңбектерде құндылықтар түрліше жіктелген (утилитарлық, идеологиялық, этикалық, жеке, ұжымдық).

3. Құбылмалылық. Жеке адамның санасында да, қоғамдық санада да құндылықтар жүйесі үнемі өзгеріп отырады. Кейбір құндылықтар мәнін жоғалтуы мүмкін. Адамның ақыл-есі толысқан кезде, өмірлік тәжірибесі молайған кезде кейбір құндылықтардың мәні артып, қадіріне жетуі мүмкін.

4. Даралық. Құндылықтар жүйесі адамның физиологиялық, психологиялық ерекшеліктеріне, тәрбиесіне, айналасына, өмірлік тәжірибесіне, рухани дамуына байланысты болады.

5. Әлеуметтілік. Адам мен қоғамның аксиологиялық жүйесі өзара байланысты. Адам белгілі бір қоғамда өмір сүретіндіктен, қоғамдағы құндылықтар жүйесі жеке адамға да қатысты болады, сол елдің заңына бағынады, әдет-ғұрпына қарсы келмейді.

Мәтін авторы қандай да бір аксиологиялық стратегия көздеуі мүмкін. Медиамәтінде автордың аксиологиялық ұстанымы алуан түрлі болады. Конвенционалды тұрақтылар стратегиясы. Автор жалпыға ортақ аксиологиялық иерархияны қолдайды, қоғамдағы негізгі құндылықтарды түсінеді, оларға басымдық береді, ол құндылықтарға мән бермей, мансұқтайтындарды айыптайды. Кеңес заманында әділдік теңдік құндылығымен қатар қойылып, «әділдік» концептісі «теңдік» концептісімен қатар сипатталды. Бұл құндылықтар жаңа Қазақстан үшін де маңызды болып отыр:

Әділдік пен теңдік – «жаңа Қазақстанның» бағдары // <https://atameken.kz/kk/news/47239-spravedlivost-i-ravenstvo--orientiry-novogo-kazahstana>

Тоқаев: Әділдік – барлық азаматтардың заң алдындағы теңдігі // <https://stan.kz/tokaev-adildik-barlik-azamattardin-zan-aldindagi-tendigi-314931/>

«Әділдік – лауазымдық және әлеуметтік мәртебесіне қарамастан барлық азаматтардың заң алдындағы теңдігі. Заңның ұлықтылығы деген де осы. Ол соттардың ісіне қол сұқпаушылықты қарастырады. Әйтсе де, жасалған заңбұзушылықтар бойынша кейде азаматтар олардың шешімдерін сәйкессіз және ақылға қонымсыз деп қабылдайды», - дейді Қазақстан президенті Қасым-Жомарт Тоқаев // <https://stan.kz/tokaev-adildik-barlik-azamattardin-zan-aldindagi-tendigi-314931/>

Тоқаевтың айтуынша, адамдардың қызметтік жайы мен мәртебесі қанша жоғары болса да, барлық азаматтар заң алдында тең болуы керек // <https://stan.kz/tokaev-adildik-barlik-azamattardin-zan-aldindagi-tendigi-314931/>

Наурызбай қажы Тағанұлы, ҚМДБ төрағасы, бас мүфти: Әділдік пен теңдік – бәрімізге ортақ құндылық. Расында, әр азамат әділдік пен теңдікті өзінен, өз отбасынан бастауы керек. Сонда ғана қоғамда игілік салтанат құрады //Источник: <https://nurgasyr.kz/p/dildik-pen-tedik-orta-ndyly>

«Білім-инновация» ХҚҚ президенті Дархан Өте: Әділдік пен теңдік салтанат құруы үшін саналы ұрпақ тәрбиелеу қажет // <https://turkystan.kz/article/236126-dildik-pen-te-dik-saltanat-ruy-shin-sanaly-rpa-t-rbieleu-azhet-darhan-te>

Состоялась республиканская научно-практическая конференция на тему «Закон. Справедливость. Равенство» – основа формирования антикоррупционной культуры //<https://www.gov.kz/memleket/entities/anticorruption-kyzylorda/press/news/details/454026?lang=ru>

Бұл орайда мақаланың тақырыпаты, сюжеті, құрылымы, мәтіннің концептуалды парадигмасы, бағалау конструкциялары (бағалаушы предикация мен атрибуция, тікелей не жанама бағалау), оқырман пресуппозициясының актуалдануы, вербалды және бейвербалды құралдармен ассоциация түзу (эвфемизм, мәтінге прецеденттік атауларды енгізу, интермәтін құру және т.б.) аксиологиялық тактика ретінде қолданылады. Ділге қайшы келетін ауытқулар, адресаттың құндылықтар туралы түсінігін өзгерту диалектикалық сипатта болады: көпшілік қабылдаған құндылықтар жүйесіне сәйкес келмейтін мәтіндердің прагматикалық және стилистикалық жүгі болады. Ондай мәтіндердің мазмұны да (адамгершілік, этикалық парадокстар, ауытқушылықтар туралы сөз болғанда), түрі де (инвективті стилистикалық әсер тудыратын мәтіндер) құндылықтар жүйесіне қайшы келуі мүмкін.

Сонымен, бұқаралық ақпарат құралдарындағы мәтіндерде адресант-автор мен адресат-оқырман өмір сүретін қоғамның аксиологиялық жүйесіне басымдық беріледі. Мәтінде қандай да бір инвариант (қоғамның аксиологиялық жүйесінің ортақ өзегі) немесе ұжым (жасы, жынысы, денсаулығы және т.б. психологиялық, физиологиялық параметрлері бойынша ерекшеленетін, кәсібі, мамандығына сәйкес белгілі бір әлеуметтік топқа жататын, мәдени, идеологиялық және т.б. құндылықтары бойынша ерекшелетін топ) туралы сөз болуы мүмкін. Құндылықтар жүйесі түрлі топта алуан түрлі болуы мүмкін. Бірде-бір мәтін аксиологиялық жүйені тұтастай бейнелей алмайды, мәтінде құндылықтар жүйесінің қандай да бір бөлігі көрініс табуы мүмкін.

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The phenomenon of polysemy in maritime vocabulary

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Abstract

Polysemy, the phenomenon whereby a linguistic unit exhibits multiple distinct yet related meanings, has always been a topic of great interest for both lexical semanticists and lexicographers. To understand the language we need to know the meaning of words and we also must know the meaning of words combine into phrase and sentence meaning, we must consider context when determining meaning. In presented paper we are discussing the semantic structure of the word and polysemy in English maritime vocabulary.

Key words: meanings, polysemy, semantic structure of words.

INTRODUCTION: For thousands of years philosophers have pondered the meaning of meaning, yet speakers of a language can understand what is said to them and can produce strings of words that are meaningful to other speakers. To understand the language we need to know the meaning of words and we also must know the meaning of words combine into phrase and sentence meaning. Finally we must consider context when determining meaning.

Presented paper is dedicated to the semantic structure of the word and polysemy in English maritime vocabulary. The branch of linguistics which specializes in the study of meaning is called semantics. The term „semantics” is ambiguous for it can stand for the expressive aspect of the language in general and also for the meaning of one particular word in all its varied aspects and nuances.

The modern approach to semantics is based on the assumption that the inner form of the word, its meaning, presents a structure which is called the semantic structure of the word and another semantic phenomenon which is closely connected with it – polysemy.

The main objects of presented paper are as follows: lexical meaning, polysemy, semantic structure of words. The semantic structure of the word does not present an indissoluble unity that is, actually, why it is referred to as a structure, nor does it necessarily stand for only one concept. Generally, it is known that most words convey several concepts and they possess the corresponding number of meanings. A word that is having several meanings is called polisemantic, and the ability of words to have more than one meaning is described by the term „polysemy”.

EXPOSE: Polysemy is a linguistic term referring to the phenomenon where a single word or phrase has multiple related meanings. It derives from the Greek words *poly* (meaning 'many') and *sēma* (meaning 'sign'). Polysemy is pervasive in natural language and is an essential aspect of language richness and flexibility. The fact that context can determine the specific meaning of a polysemous word illustrates the dynamic nature of language. Polysemous words are therefore words that have multiple, related meanings. These meanings often share a core concept but differ in specific applications. Polysemy is quite typical for English maritime vocabulary. For illustration

let's discuss the words having several meanings in English maritime vocabulary, below are given examples:

a) Meanings of the word -Tank

1. container for liquid or gas
2. tanker-truck, cistern
3. reservoir

b) Meanings of the word - Sail

1. A piece of material extended on a mast to catch the wind and propel a boat or ship or other vessel.
2. The conning tower of a submarine
3. A journey by boat or ship (a two-day sail)
4. a sailing vessel or ship.

c) Meanings of the word - pipeline

1. A long pipe, typically underground, for conveying oil, gas, etc. over long distances
2. A channel or system supplying goods

d) Meanings of the word - engine

1. motor
2. machine

e) Meanings of the word - yard

1. warehouse (an outside area used for storage)
2. work area (an enclosure within which any work or business is carried on, often used in combination with navy yard)
3. a unit of measurement .

f) Meanings of the word - yard

1. warehouse (an outside area used for storage)
2. work area (an enclosure within which any work or business is carried on, often used in combination with navy yard)
3. a unit of measurement .

g) Meanings of the word - Oil

1. petroleum (the black oil obtained from under the earth's surface from which petrol comes)
2. diesel/lubricating oil(a thick liquid that comes from petroleum, used as a fuel and for making parts of machines move easily)
3. fuel

h) Meanings of the word - Oil

1. petroleum (the black oil obtained from under the earth's surface from which petrol comes)
2. diesel/lubricating oil(a thick liquid that comes from petroleum, used as a fuel and for making parts of machines move easily)
3. fuel

i) Meanings of the word – Table

1. schedule
2. a flat surface
3. a small plank
4. multiplication table.

Additionally, because polysemous words have more than one meaning, they can cause lexical ambiguity. One fundamental characteristic of polysemous words is that all the different meanings are associated in related senses. Because of this, polysemous words often have denotative and connotative meanings. For instance: the word „Head”-which means the head of a

body (denotative) and the „head” of the piston (connotative), the head of the piston widely used in maritime vocabulary. Words have two main kinds of meaning, denotation and connotation (denotative and connotative meanings).

Denotation refers to definitions that are accepted by the language group as a whole, or the dictionary definition of a word. The leading semantic component in the semantic structure of a word is usually termed denotative component. The denotative component expresses the conceptual content of a word. For example, the denotation of the word „shell” is the hard outer covering or support of an animal (e.g. the *shell* of a crab, *shells* at the beach, *the shell* of a snail, crab, tortoise) or „shells” are hard objects found on beaches. They are usually pink, white, or brown and are the coverings which used to surround small sea creatures. Another denotation is the hard outer covering of something, especially nuts, eggs (e.g. nuts have very hard shells, a piece of shell fell into the cake mixture), and the denotations of the word „shell” which are used in the maritime vocabulary are: **a)** the „shells” of a boat, vessel, ship - which is the structure or the outside frame of it and the synonyms of this denotation are: hull, framework, frame, structure., **b)** „shell” a type of boat used for racing, driven by people using oars (poles with flat ends). Consequently, due to the multiple denotations the word „shell” has multiple meanings and is considered as a polysemantic word. A more interesting is the word „dolphin” which also has several denotations: **a)** „dolphin” - a sea mammal that is large, smooth, and grey, with a long, pointed mouth., **b)** „dolphin” - a structure for protecting the pier of a bridge., **c)** „dolphin” - a bollard, pile, or buoy for mooring boats or buoy to which a vessel may be moored in open water. A word, like „dolphin” would be also a form of **lexical ambiguity** due to the multiple denotations. Since both „dolphin” and „shell” have multiple meanings, they can cause lexical ambiguity. The form of **lexical ambiguity** is the ambiguity between semantically related word senses, usually referred to as polysemy.

Connotation refers to definitions that are based on emotion or experience-based associations people have with a word, a feeling or idea that is suggested by a word in addition to its basic meaning, or something suggested by an object or situation. Additional semantic components which are termed connotations or connotative components. A polysemantic words like „dolphin” also show that a meaning can have two or more connotations and philosophers of language have explored how connotations extend beyond one or two experiential or emotional meanings of a word to constitute cultural myths. A word „dolphin” is a symbol of luck and protection, is a symbol for salvation, or represents a person who is friendly, good natured. The word „shell” can conjure up thoughts of a Royal Dutch Shell (which is a British-Dutch company involved in the extraction and processing of gas and oil and chemical production. It was formed in 1907 as a result of the merger of Royal Dutch Petroleum Company and The Shell Transport and Trading Company Ltd), or shells with pearls. The above mentioned examples show by singling out denotative and connotative components one can get a sufficiently clear picture of what the word really means. The examples presenting semantic structures of the words above also show that a meaning can have two or more connotative components. In polysemy we are facing various meanings in the semantic structure of one and the same word or polymsemantic words and there is sometime a chance of misunderstanding when a word is used in a certain meaning but accepted in another. So, the task of distinguishing between the different meanings of a word and the different variations of usage of the words is actually a question of singling out the different denotations within the semantic structures of the word. How many meanings can we identify in above mentioned examples? Generally speaking, it is common knowledge that context is a powerful preventative against any misunderstanding of meanings. **Conclusion:** All this leads us to the conclusion that context is a good and reliable key to the meaning of the word that prevents from misunderstanding, leads to the importance of context in the interpretation of the meaning

of polysemous words, leads to contextual factors that play a role in determining word meaning include the situation in which a word is used, the sentence in which a word occurs or the experience of particular entities each individual has. Nowadays, different methods of componential analysis are widely used in semantic research, yet, contextual analysis remains one of the main investigative methods for determining semantic structure of the word and polysemy.

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Pedagogical Sciences

FUNDAMENTALS OF PEDAGOGICAL SUPPORT FOR STUDENTS IN SCIENTIFIC ACTIVITIES

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Abstract: The article presents the analysis of the scientific literature on the issue of the formation of the phenomenon of "pedagogical support of students' scientific activities". The positions of different authors in understanding the phenomena of "pedagogical support" is researched. The general characteristics of "pedagogical support" are highlighted. The article may be of interest to new researchers and education professionals who organize such processes in modern conditions.

Keywords: pedagogical support of research activities of students, pedagogical support, research activities of students, student science.

The investigation of the phenomena of "pedagogical support of students' research activities" and the formation process of this phenomenon is the focus of this essay. As part of our dissertation study, which focuses on developing instruments for planning multidisciplinary scientific research projects involving first-year students, we are working on this assignment.

The most crucial activity for the advancement of a professional in any subject is research. A modern specialist who is prepared and capable of conducting interdisciplinary research and resolving project-oriented issues must possess research competence. For it takes the successful completion of these competences to make it mandatory for students to begin doing research projects in their first year of study.

Consideration of the designated phenomenon requires turning to another pedagogical phenomenon, which is close in meaning to ours and therefore is often considered as a synonym. This is a phenomenon- "pedagogical support".

"Pedagogical support" is an organized process of joint activity between a teacher and a student, aimed at identifying interests, goals, difficulties and finding joint ways to achieve positive results in educational and extracurricular activities. We find a similar understanding of the phenomenon in the works of T.V. Anokhina O.S. Gazmana, A.S. Smirnova, E.Yu. Shlyubul, V.A. Makarova, S.A. Fedorova, A.S. Zelko.

At S.A. Fedorova, we find possible options for pedagogical support:

- assisting the student in forming a system of self-development;
- choosing the direction of self-development and joint development of programs;
- identification of effective tools for carrying out independent activities.

The author also outlines the requirements for the process:

- purposefulness and stage-by-stage implementation of programs;
- use of a person-centered approach when developing programs;
- introduction and implementation of pedagogical support programs within the educational activities of the institution.

The emergence of the phenomenon of “pedagogical support” is associated with the ideas of student-oriented pedagogy, with a change in the educational paradigm (from “object-subject” to “subject-subject”). One of the first mentions in the scientific literature of the phenomenon of “pedagogical support” is found in the works of P.A. Elkanova 2000.

She considered “pedagogical support for the socialization of a teenager” as a system of pedagogical activity that reveals the personal potential of a teenager and ensures personal development, including assisting the teacher, student and his family members in overcoming difficulties of a social, psychological, and personal nature.

E.V. Yushkevich understands “pedagogical support” as an organized process of joint activity between a teacher and a student, aimed at the formation of motivational and activity components that influence self-development and self-education.

E.P. Sizintseva considers the phenomenon as an integral system of actions aimed at creating an individual pedagogical process.

E.B. Manuzina considers “pedagogical support” as a process of upbringing, training and education organized by qualified workers, which has its own structure and strict sequence, implemented throughout life, taking into account the specifics of a person’s current social group.

“Pedagogical support for students of higher educational institutions” is a type of professional activity of a teacher aimed at adapting students to mastering educational programs. The main goal of support is to plan joint activities between the teacher and the student, aimed at overcoming potential and emerging difficulties in educational and extracurricular activities through creating conditions for self-development and self-education.

The works of different authors make it possible to discover something common in the understanding of the phenomenon as an organized process of joint activity between a teacher and a student, the purpose of which is the formation of motivational and activity components that influence self-development and self-education.

The understanding of the phenomenon as an organized process of joint activity between a teacher and a student, with the aim of forming motivational and activity components that influence self-development and self-education, can be found commonalities in the works of different authors.

Scientific articles outline the primary lines of inquiry into the phenomenon of "pedagogical support," including issues with schoolchildren's socialization, support for a range of extracurricular activities, and assistance for college students and working professionals.

Analysis of scientific literature made it possible to identify common and distinctive characteristics of “pedagogical support” and “pedagogical support.”

General characteristics of the processes include:

- special organization of the process;
- associated with the processes of self-education and self-development;
- two-sidedness of the process;
- reliance on a person-centered approach and humanistic principles;
- structure and sequence of programs.

Distinctive features of the “pedagogical support” process:

- interdisciplinary nature;
- complexity;
- continuity in implementation;
- providing assistance to students during the period of mastering one or more educational programs, depending on the purpose and request.
- student independence in searching for the vector of their own realization.

Currently, the phenomenon of “pedagogical support” is found in the works of researchers, but not as often as the phenomenon of “pedagogical support,” which is explained by a paradigm shift. The transition from “pedagogical support” to “pedagogical support” can be explained by T. Kuhn’s Theory of Scientific Revolutions. A paradigm shift occurs due to the impossibility of solving a scientific problem within the existing paradigm.

A study of scientific sources reveals that the issue of “pedagogical support for students’ research activities” has not previously been widely covered in science, but there are works that address this phenomenon.

So L.S. Voronkova believes that support for research activities should be carried out within the framework of semester-long research work. The content of such work is the step-by-step writing of a master's thesis, which is focused on the student's independent work. Support of the student’s work is controlled and managed by the supervisor and is carried out through presentations at conferences, seminars and the defense of a master’s thesis. In our opinion, this understanding of the phenomenon rather relates to the concept of management of research activities.

I.N. Emelyanova investigated the problems of pedagogical support of research activities of undergraduates. The author defines such support as a type of specially organized activity of a teacher aimed at mastering research competencies for the purpose of developing a product. The essence of support is to provide assistance to the student and create favorable conditions for making scientific discoveries. But this definition of the phenomenon also does not reflect the essence of the phenomenon “pedagogical support of research activities.

K.V. Yakimova investigated the conditions for the implementation of “pedagogical support for students’ research activities” in pedagogical areas of training:

- creation by the department (department) of a favorable educational environment based on possible and emerging difficulties among research students;
- involving students in research and development activities from the beginning of their studies at the university;
- inclusion of modern means, methods and technologies of teaching in educational and extracurricular activities;
- development and use of individual research trajectories taking into account students’ research requests;
- maintaining interest in research activities through assistance, support and accompaniment of students.

The undertaken analysis of works devoted to the study of the phenomenon of “pedagogical support” allows us to place some emphasis in understanding the phenomenon under consideration. For us, “Pedagogical support of students’ research activities” is a two-way process specially organized by an education specialist to involve students in scientific activities, including conducting, advising and maintaining interest in it, creating favorable conditions for students to achieve scientific results.

The analysis of scientific works allows us to make some generalizations:

- the general characteristics of the phenomena “pedagogical support” and “pedagogical support” include the following: a specially organized process; connection with the processes of self-education and self-development; reliance on a person-centered approach and humanistic principles; two-sidedness of the process, structure and consistency;
- the distinctive characteristics of the phenomenon of “pedagogical support” are: interdisciplinary nature; complexity; continuity in implementation; the duration of the process depending on the purpose and request; independence of the student in searching for the vector of his own realization;

- the phenomenon of “pedagogical support of students’ research activities” is not sufficiently covered in science and needs clarification.

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Применение синергетического подхода в методологии управления качеством профессиональной подготовки специалистов

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Аннотация

Целью статьи является теоретическое обоснование применения синергетического подхода в методологии управления качеством профессиональной подготовки специалистов в соответствии с требованиями системы менеджмента качества учебного заведения.

Проблеме качества профессионального образования в Республике Казахстан уделяется все большее внимание. В данной ситуации задача достижения соответствия уровня профессионального образования императивам развития общественных отношений и заказчиков специалистов становится стратегической и требует научного междисциплинарного поиска по определению концептуальных подходов к управлению качеством профессиональной подготовки специалистов, к его научно-методическому обеспечению и технологизации. Именно способность субъектов образовательного процесса к самоорганизации стало фактором, определяющим качество профессиональной подготовки специалистов, а также имидж высшей школы и престиж профессии.

Рассмотренный синергетический подход к управлению качеством профессиональной подготовки специалистов в виде очередности обеспечения, улучшения и создания нового качества посредством наращивания потенциала самоорганизации субъектов образовательного процесса становится алгоритмом и может стать методикой для учебного заведения, где учитываются специфика научно-педагогической деятельности, характерные особенности профессии и значимость конкурентоспособности в интересах профессиональной деятельности. Данный концептуальный подход к управлению качеством может стать теоретической основой технологии, которая позволяет измерять и предсказывать качество многоуровневой подготовки специалистов и выполнять мониторинг готовности студентов к выполнению задач профессиональной деятельности.

Ключевые слова: профессиональная подготовка, управление качеством, синергетический подход, потенциал самоорганизации, уровень качества, инновационная деятельность.

APPLICATION OF A SYNERGETIC APPROACH IN THE METHODOLOGY OF QUALITY MANAGEMENT OF PROFESSIONAL TRAINING OF SPECIALISTS

Abstract

The purpose of the article is a theoretical justification of the use of a synergetic approach in the methodology of quality management of professional training of specialists in accordance with the requirements of the quality management system of an educational institution.

The problem of the quality of vocational education in the Republic of Kazakhstan is receiving increasing attention. In this situation, the task of achieving compliance of the level of professional education with the imperatives of the development of public relations and the customers of specialists becomes strategic and requires a scientific interdisciplinary search to determine conceptual approaches to the quality management of professional training of specialists, to its scientific and methodological support and technologization. It is the ability of the subjects of the educational process to self-organize that has become a factor determining the quality of professional training of specialists, as well as the image of higher education and the prestige of the profession.

The considered synergetic approach to the quality management of professional training of specialists in the form of priority provision, improvement and creation of new quality by building the potential of self-organization of subjects of the educational process becomes an algorithm and can become a methodology for an educational institution, which takes into account the specifics of scientific and pedagogical activity, the characteristic features of the profession and the importance of competitiveness in the interests of professional activity. This conceptual approach to quality management can become the theoretical basis of a technology that allows measuring and predicting the quality of multi-level training of specialists and monitoring the readiness of students to perform tasks of professional activity.

Key words: professional training, quality management, synergetic approach, self-organization potential, quality level, innovative activity.

Введение

При решении задач управления качеством профессиональной подготовки специалистов (УКППС) и создания конкурентных условий обучения и воспитания целесообразно использовать широкое использование теорий менеджмента (Армстронг, Тейлор, 2018) [1, с. 112], организаций жизненных циклов людей, товаров и услуг и современных научных подходов, в частности, положений синергетического подхода в образовании. Данный подход к исследованию социальных систем опирается на понятие «потенциал» (P) как характеристику возможностей вуза, являющегося социальной системой, в виде суммы потенциалов $\sum_{i=1}^n P_i$ элементов этой системы (квалификация сотрудников, количество, уровень активности и командности, техническая оснащенность и используемые технологии, мотивированность и множество других факторов). Суть закона синергии в том, что при определенных условиях суммарный эффект совместной деятельности персонала вуза оказывается существенно большим или существенно меньшим, чем простая сумма индивидуальных потенциалов его работников. «Результат действия закона синергии будет самым благоприятным. Все работники в рамках своих полномочий и ответственности с пониманием будут относиться к действиям руководителя по гармонизации деятельности и ресурсов. Кроме того, подчиненные будут сами самосовершенствоваться для достижения синергии. Синергия - это, прежде всего благоприятный климат, творческая работа и прибыль» [2, с. 48].

Материалы и методы

В исследовании использовались:

- ведущие положения теории систем, педагогического менеджмента, теории организации, учения о качестве;
- системно-ситуационный подход, применяющийся для обозначения конкретного сочетания разных элементов и факторов, анализа неустойчивого состояния сложного объекта;
- личностно-деятельностный подход, ориентированный на реализацию потенциала личности и обеспечивающий обращенность к внутреннему миру человека, активизацию саморазвития личности;
- синергетический подход, позволяющий исследовать закономерностей и принципов самоорганизации в системах самой различной природы;
- методы кибернетики и моделирования;
- методы математического анализа;
- наблюдение за образовательным процессом в профессиональных учебных заведениях;
- положения системы менеджмента качества.

Результаты исследования и дискуссия

С точки зрения синергетического подхода система УКППС вуза представляет собой динамически стабильную совокупность взаимозависимых и взаимодействующих структур, способных к самоорганизации. Обобщенной характеристикой УКППС является потенциал самоорганизации (далее – потенциал) системы. При подобном подходе к модели и моделированию УКППС целенаправленное усиление потенциала системы (за счет потенциалов элементов системы) позволяет обеспечивать не только улучшение качества профессиональной подготовки (ПП), в первую очередь, за счет инноваций, но и представляет возможность добиваться положительного синергетического эффекта в конкурентных взаимоотношениях с другими вузами.

Главными элементами системы УКППС являются субъекты ПП – обучаемые и обучающие. В частности, рассматривая потенциал личности обучаемого (студента, магистранта, докторанта) необходимо учитывать ее тип, интеллектуальные составляющие, физическую силу, выносливость, трудолюбие, степень организованности, самоконтроля, интенсивность воздействия на имеющиеся характеристики и многое другое, что в нашем случае характеризуется показателями качества его деятельности [3, с. 118]. В конечном итоге интенсивность приращения потенциала обучаемых ($P_{\text{юбуч.}}$) определяется состоянием и ролью потенциала обучающих - ППС, научных кадров, эдвайзеров ($P_{\text{иппс}}$) и значительностью потенциала системы обеспечения и обслуживания ($P_{\text{юбесп.}}$) ПП. Данная модель представлена на рисунке 1.

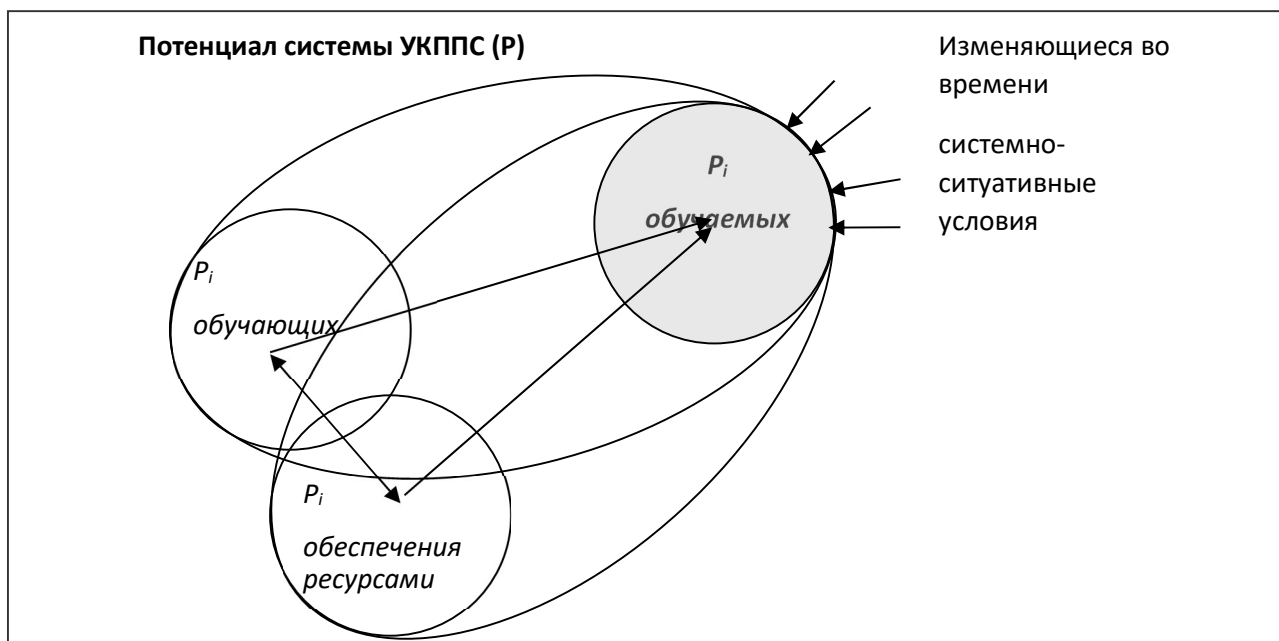


Рисунок 1 – Модель развития потенциала обучаемых за счет воздействия (взаимодействия) потенциалов обучающихся и ресурсного обеспечения ПП

Процессы УКППС, характер их развития во многом зависят от личного состава вуза, степени его вовлеченности в данные процессы и определяются уровнями квалификации, активности и корпоративной культуры (командности). Они направлены, в первую очередь, на развитие потенциала самоорганизации обучаемых. В процессе ПП каждый субъект оценивает и соотносит свой потенциал и потенциал коллектива и на основе этого сознательно выбирает ту или иную стратегию поведения. Измерение этого потенциала осуществляется через понятие «качество», которое характеризуется изменением соотношения: **ценность ПП / ресурсы самоорганизации (самореализации) личности**.

Оценка состояния системы УКППС – это, в первую очередь, качественная характеристика выбираемой субъектом ПП стратегии поведения по реализации своего потенциала. Качественные оценки результатов УКППС с достаточно полнотой можно представить следующими основными градациями уровней потенциала субъекта ПП: минимальный, достаточный, идеальный. Нижеследующая модель (рисунок 2) показывает связь качественных параметров потенциала обучаемых с качественными параметрами потенциала обучающихся системы УКППС при постоянном значении потенциала обеспечения ПП ($P_{i\text{обесп.}} = \text{const}$). В соответствии с этим нами условно выделены три основные критерии развития потенциалов самоорганизации субъектов ПП (обучаемых и обучающихся), соответствующие трем стратегиям УКППС:

- 1) исполнительность – обеспечение качества (поддержание потенциала);
- 2) адаптивность (конкурентоспособность) – улучшение качества (развитие потенциала);
- 3) лидерство – создание (возникновение) нового качества (саморазвитие потенциала) [4, с. 92].

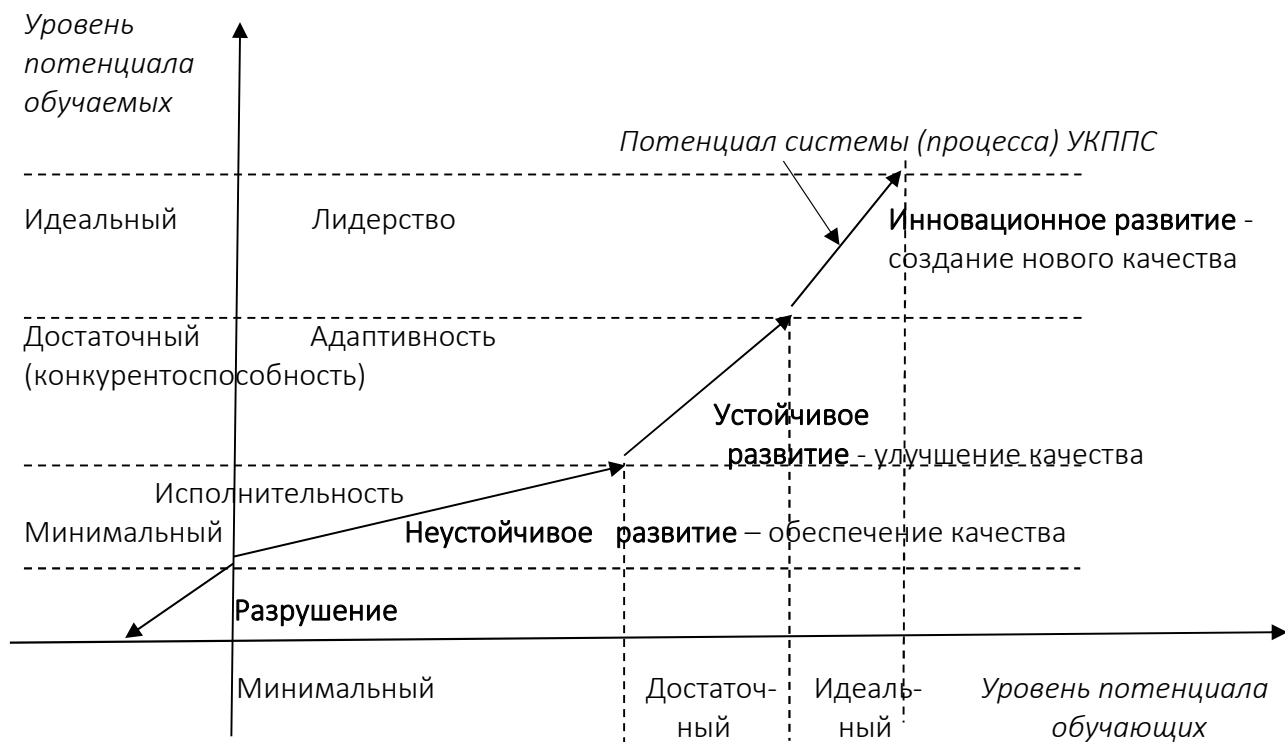


Рисунок 2 – Критерии, уровни и стратегии системы УКППС в соотношениях качественных параметров потенциала самоорганизации субъектов ПП

Ниже рассмотрим каждую стратегию УКППС в отдельности:

1. В начале осей находится прямоугольник со сторонами «минимальный-минимальный» (рисунок 2), в котором происходит неустойчивое развитие потенциалов. Эта область соответствует стратегии поведения «исполнительность», способности системы «поглощать» собственные и внешние возмущения. При таком состоянии замедляются темпы развития, определенная доля потенциала расходуется на трансформацию элементов и структуры системы на основе использования внутренних резервов. Нарушается устойчивость системы (мягкая потеря устойчивости), но она еще способна к воспроизводству знаний. Приращение начального и конечного потенциала системы УКППС положительное за счет увеличивающихся из курса в курс потенциала обучаемых.

В этом случае усилия обучающихся (ППС) используются в основном на перестройку ПП и переработку учебной документации. Такая стратегия означает, что субъекты ПП приспособляются к системе, игнорируют идею раскрытия возможностей, делают вид, что их не существует, и не предпринимают никаких шагов по их реализации. Данная стратегия может быть объяснена *слабой мотивацией*, низкой профессиональной компетентностью субъектов ПП и способна привести к эскалации «жесткого» административного управления. В конце концов, система УКППС не достигает устойчивого развития, а возможности субъектов ПП полном объеме не реализуются и не стоит рассчитывать на высокие результаты ПП. Если сила внешнего возмущающего действия (системно-ситуативных условий) превышает возможности системы, то она разрушается и переходит в состояние, когда решать задачи качества ПП невозможно.

2. При стремлении субъектов ПП удовлетворить свои образовательные (профессиональные) потребности возникает стратегия адаптивности и сотрудничества. Здоровое соперничество позволяет добиться необходимого результата, стимулирует развитие и прогресс. Такая

стратегия поведения субъектов ПП соответствует стратегии устойчивого развития системы УКППС. В данной области располагается множество точек возможного взаимодействия и сотрудничества. Идеальным сотрудничеством можно считать развитие потенциала каждой из сторон. Стратегия адаптивности (конкурентоспособности) является единственно возможным и наилучшим вариантом реализации возможностей. При устойчивом развитии системы УКППС внутренние и внешние возмущающие воздействия не способны выводить систему из установившегося состояния, обеспечивающего прирост потенциала (интеллектуального капитала).

3. Наконец, еще одна стратегия поведения и развития системы выражается областью, имеющей одновременно высокие значения. Это стратегия лидерства. Она отличается стремлением достигнуть максимально возможного удовлетворения своих интересов и интересов партнера. Это единственный способ достичь и превзойти искомого (ожидаемого) результата. Часто это желательный вариант, но на практике во многих конкретных ситуациях он нереален. Для него необходимо взаимное желание разрешить проблему совместно, с учетом истинных интересов всех сторон, участвующих в ПП [5, с. 115].

Каждая из вышеприведенных стратегий поведения и развития может быть оптимальной и обеспечить наилучший эффект в зависимости от конкретных условий функционирования системы УКППС. Однако наряду с перечисленными составляющими состояния требуется учитывать и другие составляющие, характеризующие динамику системы в виде ресурсных возможностей персонала, технико-технологических, финансово-экономических и информационных, направляемых на инновационную деятельность вуза и желаемые результаты.

Изучение и оценка роли основных составляющих, необходимых для моделирования УКППС, показывает, что цели процесса и желаемые результаты зависят:

- от оценки значимости конкурентоспособности вуза как результата взаимодействия внешних (неуправляемых) и внутренних (управляемых) факторов и процессов, успешно моделируемых различными специальными методами, опирающимися на известные методики (SWOT-анализ и многие др.), которые целесообразно учитывать в ходе стратегического и оперативного управления (п.п. 1-3, 8 рисунок 3);
- от учета характерных и специфичных составляющих в виде ресурсных возможностей; наиболее целесообразных объектов (субъектов), нуждающихся в развитии их потенциала и соответствующих всему перечисленному методов взаимодействия (воздействия) для достижения прогнозируемых результатов (п.п. 4-8, рисунок 3) [6, с. 84].



Рисунок 3 – Обязательные составляющие моделирования процессов УКППС

Здесь самое главное – формализация цели (адекватность системы) и выбор алгоритма управления (эффективность системы). От этого зависит качественно-количественное описание управляемого процесса. Цель УКППС в том или ином звене иерархической системы управления диктуется самой постановкой задачи обеспечения, улучшения и создания нового качества ПП вышестоящим звеном управления и может быть сформулирована как реализация и развитие потенциала самоорганизации вуза (субъектов ПП) в объеме наличного ресурса (интервале времени) выполнения этой задачи.

Основными составляющими модели УКППС в вузе являются две группы элементов: различные

ресурсные возможности (постоянный, переменный состав, материально-технические, технологические и информационные условия) и разнородные составляющие процесса повседневной деятельности (от маркетинговых исследований и до сопровождения выпускников, учитываемых в ИСО-9000-...). Состав и содержание модели зависят от направленности, условий, ограничений и четкости критериев и показателей. В первую очередь, принято определить уровень значимости и основную целенаправленность действий по управлению качеством в отношении внутренних факторов под воздействием определенных факторов внешней среды. В этой связи в качестве связующего фактора системы УКППС с внешней средой нами выбран процесс генерализации информации («информация-знание» - «опыт-информация»), управление которым позволяет моделировать сложные многомерные и многоуровневые процессы УКППС [7, с. 173]. В ходе профессионального обучения и воспитания субъекты ПП обмениваются естественным образом информацией с внешней средой. Процессы УКППС призваны обеспечить обмен информацией и способствовать развитию потенциала самоорганизации субъектов ПП.

Применение синергетического подхода в методологии УКППС состоит в следующем. Принципиальной особенностью функциональной модели УКППС является наличие в ее структуре прогнозирования желаемого потенциала самоорганизации системы на основе оценки начального ее состояния и мониторинга текущего состояния системы. По данным мониторинга прогнозируется вероятное состояние объекта управления в планируемом ресурсе, например, в интервале времени (неделя, месяц, семестр, учебный год, полный цикл ПП и т.п.). К примеру, в вузовской системе подготовки специалистов, в которой средства прогноза (планирования) представлены измерителями промежуточной и итоговой

аттестации студентов (магистрантов, докторантов). С учетом этих данных и по результатам контроля текущего состояния объекта управляющий орган вырабатывает решение и принимает меры, переводящие подсистему УКППС в качественно новое состояние с определенным потенциалом [8, с. 56].

Принципиально важно, что процесс принятия решения по обеспечению, улучшению и созданию нового качества ПП всегда базируется на информации о прогнозе (что должно быть) и о контроле состояния системы (что имеем). Отсутствие любого из этих компонентов информации делает принципиально невозможным выбор адекватных мер УКППС. Эта модель должна рассчитывать не на отставание сознания от бытия, образования от жизни, а на их опережение и на этой основе осуществлять целенаправленное рациональное конструирование желаемого результата [9].

На рисунке 4 представлена потенциальная модель достижения требуемого качества ПП $Q_{Стр.}$ при традиционном (прямая линия) и синергетическом подходах (волнообразная кривая) к управлению качеством. Данная модель дает научное представление об общих закономерностях функционирования системы УКППС: в процессе ПП с использованием определенного объема ресурсов формируется потенциал системы и реализуются процессы «освоения информации – превращение ее в знания» - «опыт – выработка качественно новой информации».

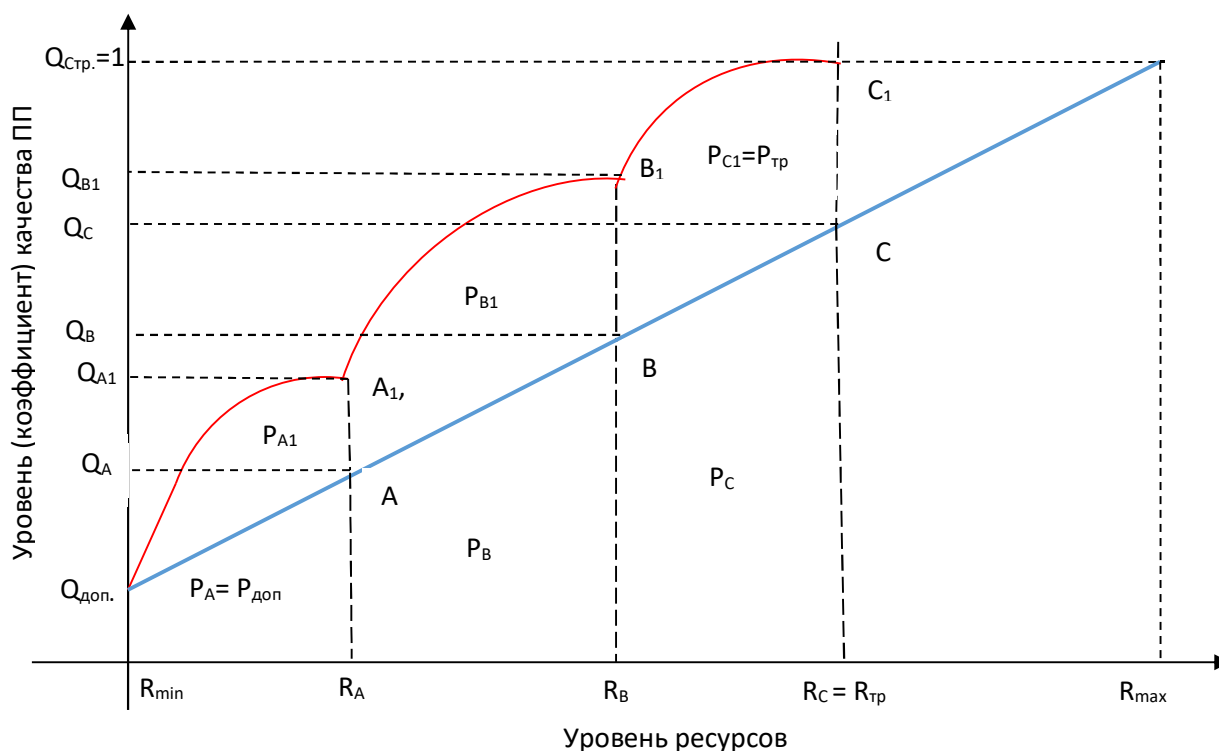


Рисунок 4 – Функциональная модель УКППС: синергетический (волнообразная кривая) и традиционный (прямая линия) способы развития потенциала самоорганизации субъектов ПП и достижения требуемого уровня качества ПП

Суть синергетического подхода к УКППС заключается в целенаправленной поддержке функционирования волны $A_1B_1C_1$ (рисунок 4) применением соответствующей педагогической технологии, обеспечивающей поэтапное представление и обработку информации более высокого уровня в более короткие сроки и значительно изменяющей ценность (качество) подготовки для обучаемых в лучшую сторону [10, с. 51]. При научном описании модели УКППС рационально рассматривать потенциал субъектов P как продукт, а

их удовлетворенность (уровень или коэффициент качества Q) – как главный критерий УКППС. Исходя из этого, система УКППС рассмотрена как сопряженное взаимодействие качественных и количественных наборов знаний, умений, навыков, компетенций и ресурсов. Как видно из рисунка 4, при традиционной системе обучения (прямая линия) вуз стремится достичь требуемый уровень качества ПП $Q_{Стр.}$ с помощью увеличения ресурсов R_{max} , в частности, времени обучения. При синергетическом способе развития потенциала (волнообразная кривая) за счет высокой мотивации, сотрудничества и творчества субъектов ПП осуществляется экономия ресурсов, т.е. требуемый уровень качества ПП $Q_{Стр.}$ достигается с наименьшим (оптимальным) расходом ресурсов $R_C = R_{Tr}$.

Значение потенциальной функции P , в пределах которой система способна существовать и развиваться, изменяется в течение жизненного цикла процесса ПП (рисунок 4). На каждом этапе ПП ($[R_{min}R_A]$, $[R_AR_B]$, $[R_BR_C]$) обеспечивается накопление соответствующего потенциала (P_{A1} , P_{B1} , P_{C1}) системой с использованием выделенных ресурсов. При этом, согласно рисунку 4, количественное значение P_{A1} определяется площадью фигуры $R_{min}Q_{доп}A_1R_A$. Значения P_{B1} и P_{C1} соответственно – площадью фигур $R_AA_1B_1R_B$ и $R_BB_1C_1R_C$. Заметим, что, при линейной системе ведения ПП такими фигурами, площади которых определяют соответствующие значения потенциалов, являются трапеции.

Вблизи точки бифуркации (A_1 , B_1 , C_1) система наиболее чувствительна к управляющим воздействиям и способность системы к развитию (самоорганизации) в этих точках максимальная. Развитие системы, реализуемое при возникновении в точках бифуркации нового качества, возможно только при наличии в системе флуктуаций, склонных к разрастанию за счет информации (ресурса) внутренней (внешней) среды. Когда величина вводимой извне информации (ресурса) достигнет некоторого критического значения, то система скачком переходит из хаотического состояния в новое квазиустойчивое организационное состояние [11, с. 78].

Крутизна кривой, характеризующая качество ПП, зависит от синергетического эффекта – способности эффективного взаимодействия субъектов ПП и интенсивности обмена информацией системы с внутренней и внешней средой. Необходимо отметить, что уровень развития потенциала самоорганизации субъектов ПП зависит также от такого ресурса, как педагогическая технология, которая выступает в качестве доминантной на рассматриваемом этапе ПП. При этом, выбор той или иной технологии осуществляется с учетом уровня развития потенциала субъектов ПП (таблица 1) [12, с. 91].

Таблица 1 – Соотношение уровней развития основных показателей УКППС и педагогических технологий

Уровень развития потенциала субъектов ПП	Уровень развития вуза	Коэффициент (уровень) качества ПП	Уровень новаторства	Доминантная педагогическая технология
минимальный	неустойчивый	обеспечение качества	вузовский	трансформная
достаточный	устойчивый	улучшение качества	страновой	адаптивная
идеальный	инновационный	новое качество	международный	проблемно-деятельностная

Таким образом, в описываемой модели УКППС показана вероятностная зависимость развития потенциала самоорганизации системы от интенсивности того или иного фактора,

влияющего на качество ПП, в частности, от ресурсного обеспечения ПП. Следовательно, текущее значение обобщенного потенциала является объективной количественной характеристикой, определяющей функциональность и способность вуза к развитию. Поэтому цель УКППС достигается лишь в том случае, если обобщенный потенциал объекта управления будет превышать некоторую условно допустимую величину $P_{доп}$, соответствующую минимуму ресурсного обеспечения (рисунок 4). Тогда, формально цель УКППС задается неравенством:

$$P(T_{упр}) \geq P_{доп} ,$$

где $P_{доп}$ – допустимый минимальный потенциал, при котором обеспечивается функциональность объекта управления в интервале времени $[0, T_{упр}]$.

В понятии «допустимый минимальный потенциал» сконцентрирована сущность технологии УКППС. Данная величина до настоящего времени не определена, является расплывчатой, и нет четкого и однозначного представления о характеризующих ее конкретных количественных показателях. Ниже этого потенциала система УКППС теряет всякую устойчивость (жесткая потеря устойчивости) и перестает быть базой воспроизводства знаний. Спектр критериев минимального потенциала широк, основным из них является неудовлетворение запросов субъектов ПП требуемого качества в течение определенного периода времени [13, с. 4].

Суть УКППС сводится к последовательному наращиванию потенциала объекта, обеспечивающего дальнейшее его развитие. В обобщенном виде алгоритм УКППС представляет собой следующие действия: по данным мониторинга планируется требуемый потенциал $P_{тр}$ (конечный результат ПП), который может быть обеспечен за определенный период времени обучения. Параметры допустимого (минимального) потенциала, как правило, отражаются в квалификационных (лицензионных) требованиях или устанавливаются вузом самостоятельно и характеризуют состояние объекта, способного к развитию. Наконец, по данным мониторинга (контроля) определяется контрольное состояние (имеющийся потенциал) объекта, и управляющий орган планирует мероприятия по улучшению, созданию нового качества ПП.

В самом общем случае возможности УКППС ограничены некоторым допустимым (минимальным) значением коэффициента качества подготовки $Q_{доп}$ (рисунок 4), который определяет реально возможный потенциал по обеспечению качества подготовки на том или ином этапе управления. Соответственно, управляемую область возможных n состояний объекта управления задают следующие неравенства:

$$Q_{доп} \leq Q_n \leq 1$$

Физический смысл вводимых понятий: коэффициент качества, управляемые области ПП, схематически представленные на рисунке 5, соответствующие различным качественным состояниям объекта управления, начиная с минимального ресурса подготовки и кончая областью с требуемым (целевым) потенциалом, и определяемые как произведение требуемого потенциала на коэффициент качества подготовки. Здесь управляемая область – это область распределения потенциалов объекта за счет управленческих мероприятий [14, с. 34].

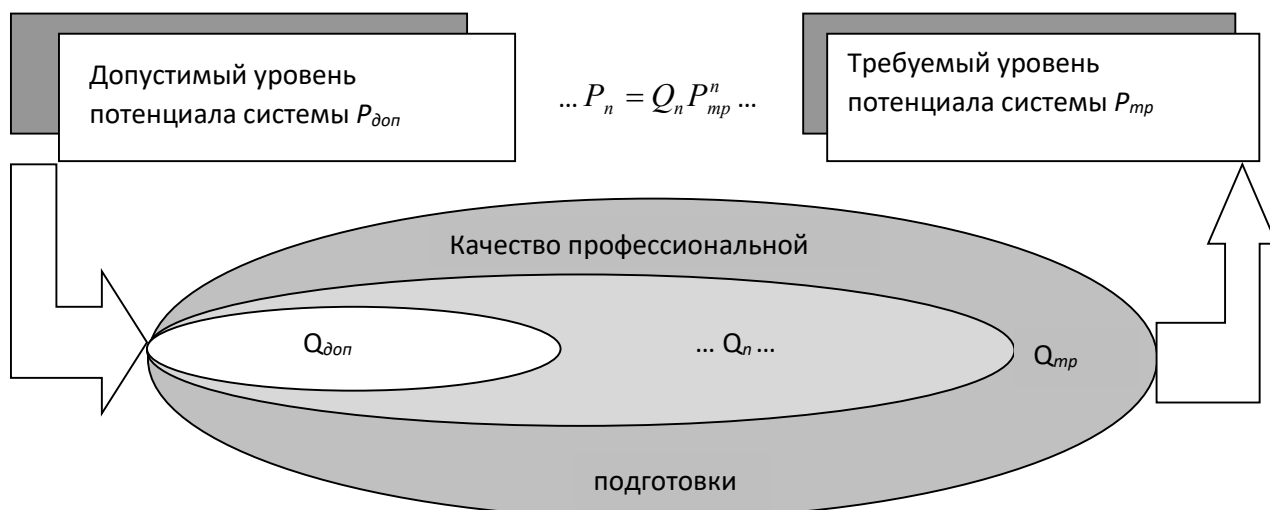


Рисунок 5 – УКППС на основе развития потенциала самоорганизации объекта управления

Следует заметить, что вне управляемой области ($P_n < P_{доп}$) проведение мероприятий УКППС означает неоправданную затрату сил и средств в том смысле, что в данной зоне объект неспособен к развитию по заранее заданным параметрам.

Важно отметить, что процесс выработки решения о мерах по повышению качества ПП может повторяться многократно по мере постановки очередных задач или изменения текущего состояния системы (подсистемы). Последовательность циклов управления составляет динамику качества ПП.

В ситуации, когда система УКППС неустойчивая, в отдельных циклах управления реализовываются структурно-функциональные схемы, в которых отсутствует канал оценки или контроля или оба канала. Эти схемы не являются типичными и могут рассматриваться как частные случаи данной модели. Однако при любых схемах управления отсутствие информационных каналов является лишь кажущимся, поскольку в процессе принятия решения недостающая информация всегда достраивается (интуитивно прогнозируется с той или иной степенью достоверности) лицом, принимающим решение.

Следует отметить, что любое развитие системы УКППС вуза является циклическим. Кризис в развитии УКППС наблюдается, как правило, при смене парадигмы образования. Он является следствием шоковых преобразований, нарушающих равновесия системы. Кризисы в УКППС характеризуются разной глубиной и длительностью, разрушают исчерпавшие свой потенциал и тормозящие развитие системы элементы. При этом четко выраженной периодичности и длительности кризисов не существует.

Следовательно, можно утверждать, что фактическое качество ПП по истечении периода времени выполнения заданных задач будет отличаться от требуемого значения на вполне определенную величину. При этом следует отметить, что на каждом этапе управления будут возникать «застои», обусловленные ошибками управления. Причем эти «застои» являются неконтролируемыми, и их заранее предвидеть невозможно, если не учитывать динамику уровня (коэффициента) качества ПП.

Предложенный алгоритм может превратиться в методику, если руководителям процессов УКППС предлагаются конкретные действия, условия и порядок выполнения операций на количественно-качественном уровне (таблица 2) [15, с. 189].

Таблица 2 – Основные процессы, условия и реализуемые операции УКППС

Основные процессы	Основные условия и реализуемые операции
1	2
Создание рабочей атмосферы и системы ценностей	Наличие команд в вузе и их роль в корпоративной культуре как фактор обеспечения и улучшения качества ПП.
Определение миссии и стратегий ПП	Желаемый образ вуза, стратегические цели, наиболее целесообразная стратегия в соотношении со сроками их достижения. Корректировка стратегических планов. Управляющие воздействия при реализации стратегических планов.
Постановка целей	Постановка перед субъектом ПП четких целей и задач, которые должны быть решены за определенное время.
Организация ПП	Значимость и ответственность деятельности (учебы). Предоставление самостоятельности субъекту ПП. Своевременная обратная связь о соответствии деятельности (учебы) установленным требованиям. Законченность выполняемых заданий.
Обращение к ценностям субъекта ПП	Самоуважение. Финансовое благополучие. Ответственность перед коллективом. Ответственность перед коллегами. Интересы вуза. Служебный рост и карьера. Интересы семьи
Убеждение	Воздействие на мнение, оценки и взгляды субъектов ПП, определяющие их ценностное отношение к УКППС
Материальное стимулирование	Конкуренентоспособность предлагаемой заработной платы. Надбавки за классную квалификацию, ученую степень. Материальная помощь. Премирование. Возможность дифференцировать оплату труда
Моральное стимулирование	Широкий набор нематериальных стимулов, используемый как непосредственным начальником вуза, так и административным управленческим персоналом вуза
Индивидуальный подход к субъекту ПП	Оценка индивидуальных особенностей данного субъекта ПП и выбор таких подходов, которые в наибольшей степени соответствуют особенностям его личности, характера и специфике мотивационной сферы. Ориентация на самоконтроль и делегирование полномочий по всем рабочим местам
Информирование	Своевременность и полнота удовлетворения потребностей субъектов ПП в значимой для них информации, что особенно важно для новых сотрудников вуза, студентов, магистрантов и докторантов нового набора
Развитие корпоративной культуры	Ценности и приоритеты, реализуемые в практике взаимодействия командования и личного состава вуза. Традиции вуза и правила, определяющие поведение и взаимодействие субъектов ПП в воинском коллективе
Применение мер дисциплинарного воздействия	Своевременность дисциплинарного воздействия. Соразмерность наказания тяжести поступка. Разъяснение причин дисциплинарного воздействия. Неличностный характер наказаний
Совершенствование практики управления	Качество управления, доминирующий в вузе стиль управления и соответствие стиля управления сложности задач и основным характеристикам персонала (уровень квалификации, образование, опыт, уровень самостоятельности)
Координация и контроль	Использование основных функций руководителей, особенно в ходе оперативного руководства и контроля (в условиях дефицита времени) в интересах процессов улучшения и создания нового качества ПП, достижения конкретных результатов
Распределение и учет ресурсов	Компетентность сотрудников по всем рабочим местам, особенно в ходе инновационной деятельности, как важнейший ресурс и умение экономить все виды ресурсов (время, технологические, материально-технические и др.)
Взаимодействие с внутренней и внешней средой	Значимость внутренних факторов в виде сильных сторон и слабостей вуза и возможностей внешней среды. Инновации как фактор улучшения и создания нового качества ПП

Таким образом, все мероприятия УКППС в конечном итоге направлены на увеличение потенциала системы тем или иным способом, следовательно, эффективность процессов управления полностью характеризуется кратностью увеличения потенциала объекта управления за счет этих процессов по отношению к состоянию системы (подсистемы) с минимальным потенциалом. Поэтому с формальной точки зрения УКППС представляет собой планирование и реализацию мероприятий, обеспечивающих необходимый коэффициент (уровень) качества ПП (Q_n). Величина этого коэффициента в первом приближении служит интегральной характеристикой комплекса планируемых мероприятий УКППС в определенном интервале времени и по существу представляет собой формализованное описание управляющего воздействия.

Коэффициент качества (показатель эффективности), выступающий интегральным показателем УКППС, показывает, как вуз обеспечивает:

- высокую удовлетворенность потребителей образовательных услуг;
- управляемые процессы ПП;
- высокий уровень корпоративной культуры вуза;
- высокий уровень мотивации субъектов ПП.

Координация функциональной (повседневной) деятельности вуза и деятельности по улучшению и созданию нового качества ПП (развития потенциала по всем иерархическим уровням и показателям качества) являются следствием уровня профессионализма руководителей процессов и характера опоры на основные функции менеджеров, в числе которых находится и функция контроля (мониторинга). Основные функции руководителей, в том числе и менеджмент человеческих ресурсов, направляются управлением на совершенствование компетентности субъектов ПП применительно к инновациям, как важнейшему и определяющему направлению, наряду со всеми другими. Таким образом, инновационная деятельность, как основа УКППС, является наиважнейшим фактором, обеспечивающим процесс улучшения и создания нового качества ПП [16, с. 91].

В процессе УКППС возникают два рода ошибок. Ошибка первого рода – непредвидение опасности, когда потенциал самоорганизации объектов и субъектов ПП не достигает необходимого уровня, и ошибка второго рода – занижение параметров прогноза при достаточном ресурсном обеспечении ПП. Следует особо подчеркнуть, что представление о взаимной компенсации ошибок, как это имеет место в процессе многократных измерений, неверно по отношению к процессу ПП. Ошибки управления «работают» в одну сторону, снижая способность вуза к улучшению качества ПП либо за счет прямых, либо за счет косвенных «застоев». Другими словами, процесс улучшения качества ПП характеризуется свойством асимметрии относительно информационных ошибок. Это различие диктует необходимость обоснования требований к прогностическим характеристикам в рамках функциональной системы УКППС, а не измерительной системы, как это делается в большинстве случаев.

В реальных системах УКППС задачей управления является рациональное использование ресурса (резерва) для восстановления способности к развитию отдельных объектов или субъектов. На этом уровне ошибка первого рода приводит к срыву выполнения задачи улучшения качества подготовки, так как к ее выполнению будет допущен неспособный к развитию субъект. Наоборот, в случае ошибки второго рода, не будет реализован потенциал способного к развитию субъекта. Таким образом, на всех уровнях иерархической системы УКППС имеет место асимметрия процесса ПП относительно информационных ошибок. Отсюда следует важный в методологическом плане вывод: так как в управляемой системе масштаб «застоя» пропорционален динамической ошибке, то при достаточно большой ее величине и при малом потенциале самоорганизации объекта (субъекта) величина коэффициента качества Q будет минимальной. Следовательно, в каждом конкретном случае

при заданном уровне (масштабах) начального состояния системы (подсистемы) и заданных характеристиках контура управления существует оптимальный иерархический уровень, ниже которого управление качеством ПП теряет смысл в связи с большой динамической ошибкой.

Развитие технологии УКППС базируется на современной концепции и целостной теории управления, которые предполагают внедрение не только системы менеджмента качества, но и комплекса технологии управления, подкрепленного соответствующей идеологией и инструментами [17, с. 204]. Данный комплекс обеспечивает продвижения вуза на следующий уровень качества (развития) и быть инновационным.

Заключение и выводы

Модель УКППС в развитии потенциала самоорганизации субъектов ПП представляет собой замкнутый информационно-управляющий контур, включающий все звенья управления – от оценки текущего состояния системы до осуществления управленческих воздействий с контролем последующего (конечного) состояния системы. Реализация адекватных мер управления, любых мероприятий процесса обеспечения, улучшения и создания нового качества ПП осуществляется после мониторинга (анализа) данных, характеризующих складывающуюся во времени и пространстве обстановку.

Синергетический подход позволяет естественным образом ввести общий или интегральный критерий эффективности управления качеством ПП, учитывающий динамику данного процесса: потенциал самоорганизации субъекта (объекта) в каждом цикле управления должны быть не ниже заданной величины, обеспечивающей сохранение или восстановление его способности к развитию.

Масштабность процессов УКППС должна учитывать:

- характер и глубину модернизации используемых педагогических технологий ПП;
- уровень новаторства, опирающегося на коренное изменение технологий ПП.

Рассмотренный синергетический подход к УКППС в виде очередности обеспечения, улучшения и создания нового качества ПП посредством наращивания потенциала самоорганизации уже становится алгоритмом и может стать методикой для вуза, где учитываются специфика научно-педагогической деятельности, характерные особенности вуза и значимость конкурентоспособности в интересах качества ПП.

В заключение отметим, что наиболее важным обобщением изложенной модели УКППС является представление совокупности средств и методов обеспечения, улучшения и создания нового качества ПП одной динамической переменной – потенциалом самоорганизации объекта (субъекта) управления. Несмотря на многообразие реальных ситуаций, а также сформулированных образовательных задач ПП, все их можно описать в рамках единой принципиальной схемы системы управления на основе известных из теории управления фундаментальных принципов. Следует подчеркнуть, что эти принципы могут быть и не осознанными в явном виде в практической деятельности различных звеньев управления при организации ПП. Однако объективная реальность состоит в том, что именно совершенствование функциональных связей в контуре управления, соответствующих этим фундаментальным принципам, составляет внутреннее содержание УКППС - развитие потенциала самоорганизации объектов (субъектов). Методы теории автоматического регулирования позволяют перейти в рамках моделей управляемых систем к исследованию динамических свойств системы (подсистем), связанных с оценками устойчивости УКППС в условиях изменчивости потенциала самоорганизации объектов (субъектов) управления.

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PREPARING FUTURE TEACHERS TO WORK WITH PARENTS

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Annotation

The article is devoted to one of the most important issues of modern higher education. The author shows the necessity of professional training for future teachers to work with parents, its specific character and main directions. The article is intended for university lecturers.

Key words: family, family education, interaction of family and school, the specificity of professional training.

The family traditionally occupies one of the most important places in human life. It shapes a child's attitude to himself or herself and the world around him or her, is the primary socialization of the personality and determines the basic values of life. Parents exert a positive or negative influence on their children through the mechanisms of imitation, identification and internalization of behavioral patterns. However, in the studies of educators (Sh.A. Amonashvili, E.B. Bondarevskaya, B.A. Karakovsky, H.D. Nikandrov, etc.) there is a transformation in the perceptions of modern youth about the role of the family in human life, which is explained by the change in the system of values, the loss of traditions and customs, the destruction of the family structure, the insufficient level of understanding of the main socio-psychological function of a person - parenthood.

At present, the nuclear family (two generations), with few children and few people, partially fulfils this important function for society. Unlike other social institutions, the system of relations between parents and children has remained essentially the same. Many parents use practically the same methods of bringing up their children that were used by previous generations. However, parents must take into account the specifics of modern social conditions and be prepared for unexpected, non-standard, complex life situations in which the family as a whole and the child in particular may find themselves. Therefore, the more parents know about the causes and consequences of children's behavior and actions, the easier they will be able to determine the tactics of their actions and choose the best way of solution.

Unfortunately, not all parents have the opportunity and desire to study special literature on pedagogical education and training. At present, the family's preoccupation with domestic and economic problems, as well as the parents' pedagogical incompetence, contribute greatly to the fact that they often shift the responsibility for their children's upbringing and education to educational institutions. Therefore, it is of particular importance that the school's interaction with the family be professionally and competently organized. Pedagogical literature defines interaction between teachers and families as a process of joint activity to coordinate the goals, forms and methods of family upbringing and upbringing in an educational institution. An important role is played by the exchange of information, meanings, emotions between the subjects of the educational process for its successful development [1]. However, when carrying out work with parents, teachers have certain difficulties: inability to combine individual, group and collective forms; to find correct ways of communication; formal attitude to interaction with

parents; poor quality of activities with low activity and low attendance of parents, their theoretical unpreparedness, which complicates the specification of goals and objectives of children's education. This can be explained by various reasons: lack of skills and abilities to work with parents, which are necessary in practical activities; poor training of teachers to educate and communicate with parents.

The importance of this problem determines the need to train specialists with theoretical knowledge and practical skills in working with parents. Kazakhstan's system of professional and pedagogical education assumes broad support for the current educational policy, restoration of the responsibility and active role of the state in this sphere, deep and comprehensive modernization with the identification of the resources necessary for this and the creation of mechanisms for their effective use. The law "On Education in the Republic of Kazakhstan" notes: "Educational organizations shall provide parents and other legal representatives of underage students, pupils with the opportunity to get acquainted with the course and content of the educational process, as well as the progress of students" [2. art. 28, para 11].

Nowadays, fruitful cooperation between an educational organisation and a family is of particular importance, contributing to the creation of a common educational space. The optimal variant of interaction in such a situation: parents of a student are subjects of the school microenvironment, participants of the general pedagogical process, and a teacher is a participant of the family microenvironment, a person who is trusted by parents and listened to in matters of education and upbringing of their children. P. F. Kapterev's opinion that "the teacher's personality in the learning environment occupies the first place, those or other properties of the teacher will increase or decrease the educational influence of teaching" is relevant [3]. B. Meider believes that "today and yesterday it is difficult to find a more powerful socio-cultural figure, elevating all spheres of social life, than the teacher, with his live participation in the formation of personality and its culture. Pedagogical practice testifies to the fact that a schoolchild perceives a teacher, first of all, as a person. The system of knowledge, which is formed by him, its educational possibilities, are perceived by pupils in the refraction of the teacher's individuality, as something personal, coming from person to person. This is what has a special meaning and significance [3]. In addition, a modern teacher should be able to teach the younger generation the basics of family etiquette, help to think about the spiritual essence of marriage, show ways and opportunities to establish relations between representatives of different generations.

The essence of interaction between teachers and parents is that they should be interested in the upbringing and education of the child, in unlocking his or her potential and developing the best qualities necessary for self-determination and self-realization. The relationship between parents and teacher cannot be presented as a conflict-free co-operation and complete mutual understanding, despite the commonality of their goals and objectives. Therefore, the teacher needs to establish and maintain contact with the parents of students, to make them allies in matters of education and training.

The specialized literature considers various models of psychological and pedagogical assistance to families.

The pedagogical model is based on the assumption of insufficient pedagogical competence of parents related to the upbringing of children. It is aimed at improving the psychological and pedagogical culture of parents, promotes their active inclusion in the process of social and personal education of children.

The social model is used when family problems are the result of unfavorable external circumstances. In these cases, the life situation is analyzed and external help is required.

The psychological model involves analyzing the family situation, psych diagnosis of the individual and family. Practical assistance helps to overcome communication barriers and

identify the causes of communication disorders.

The diagnostic model is based on the assumption that parents lack specific knowledge about the child or their family.

The medical model assumes that family difficulties are based on the health problems of family members (often the child), and therefore specific relationships arise between them. Practical help for parents is to teach them how to organize correctly the educational environment for children with disabilities.

Depending on the causes of problematic child-parent relations, teachers can use different models of family support. The implementation of a systematic improvement of parents' pedagogical culture will help them, through special training, to significantly increase the effectiveness of upbringing. Parents will be able to master techniques for communicating with their children and conflict resolution, which will help to strengthen contacts between them.

In work with parents, special attention should be paid to the organization of productive communication. The teacher is the leader of pedagogical communication. His activity is characterized as a complex system of relations, as the sphere of his communication is represented by a wide range of participants, among whom, of course, are the parents of students. When organizing communication, a teacher should take into account the subject, tasks and conditions of communication, characteristics of its participants; understand the importance of speech as the main means of teaching and education. Being a subject of pedagogical communication, the teacher also contributes to the activation of speech culture of parents. Realizing their social role, they should not only master knowledge, but also demonstrate it correctly, which is not always possible in practice. The task of the teacher is to organize such interaction so that each parent feels not only a subject of joint activity, but also a significant person capable of revealing his or her communicative potential. The effectiveness of pedagogical activity as a whole, the moral and psychological climate, the satisfaction of the teacher and parents, the degree of their relationship depends on how well the communication is organized. This largely depends on the professional preparedness of teachers to work in this area.

Communicative competence - knowledge of cultural norms, etiquette and restrictions in business communication; possession of a variety of communicative, interactive, perceptive, presentation skills, verbal and non-verbal means of communication; models, strategies, effective style and forms of interaction; techniques of persuasive and suggestive influence on partners; ability to establish feedback [5].

In addition, preparation for work with parents should be carried out not only in classrooms, but also in the conditions of educational organizations (participation in parent meetings, conferences, business games, forums, social surveys, etc.) in order for students to gain direct initial experience of working with parents. Such training may include several stages:

The diagnostic stage helps to establish contact with parents, to identify their psychological and pedagogical needs in the upbringing and education of the child, to determine the groups of parents according to the degree of awareness, their readiness to improve pedagogical culture, to master the methods of teaching and education, etc. For this purpose, future teachers should form a bank of questionnaires and questionnaires for parents, which will help teachers to find out information on certain areas, predict the results of the upcoming work.

The search and creative stage is aimed at organizing pedagogical education of parents. Students should determine the topics of activities, using diagnostic materials, make a plan of joint activities, develop the content, select forms and methods of conducting (thematic evening, parents' meeting, seminar, round table, pedagogical workshop, etc.).

The remedial stage involves discussing the materials prepared by students with classmates, the teacher, and, if possible, with practicing teachers. If necessary, changes are

made to the content and recommendations are made.

The main stage involves participation (if possible) of students in events organized by educational institutions for parents. Future teachers can speak at a parents' meeting, prepare handouts, conduct a game, etc. They have an opportunity to test their abilities, reveal their pedagogical potential, realize themselves.

The analytical stage involves analyzing the event, the results of interaction with parents, and evaluating one's own participation. At this stage it is possible to conduct a survey of parents and teachers, which will help to understand whether the needs of parents are satisfied with the information received, whether they realize the importance of their pedagogical activity, the role of the family in the formation of the child's personality.

Thus, working with parents is the most important direction in the professional activity of a teacher. The training of future teachers is a complex, dynamic process that involves the organization of effective pedagogical communication, which is based on dialogue as the most favorable form of interaction between the subjects of educational relations, based on the principles of mutual enrichment and mutual development, which will further promote the integration of productive communicative activities of the teacher and parents.

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THE MEANING OF THE CONCEPT OF "SKILL" AND "SUBJECT SKILL"

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Abstract

This article discusses the meaning of the concepts of "skill", skills groups and "subject skill".

Let's consider in detail the concept of "skill". The analysis of psychological and pedagogical literature shows that there is no single definition of the concept of "skill" in pedagogy and psychology. This category is considered both as a psychological category and as a pedagogical category. Therefore, this explains the differences in approaches to the consideration of the concept of "skill".

In the psychological and pedagogical encyclopedia, this general concept is differentiated into "simple skill" and "masterful skill". A simple skill is a certain ability to act on the basis of knowledge or as a result of imitation. A masterful skill arises on the basis of skills and knowledge developed in the course of action [1].

According to Wikipedia: "A skill is a way of performing an activity, provided by a set of acquired knowledge and skills. It is formed through training and allows you to perform actions not only in normal, but also in changed conditions" [2]. At this stage, it can be assumed that the skill is developed through some exercises.

Most psychologists and educators believe that skill is higher psychological category. Some authors, in particular A.T.Stepanishchev, explain that skill is the ability to carry out any activity at a professional level [3].

The psychological basis of skills is the understanding of the relationship between the purpose of the activity, the condition and the methods of its implementation. And from a pedagogical point of view, skill is a complex and extremely large-scale concept: it means the ability of a person to purposefully and creatively use their knowledge and skills in the process of both theoretical and practical activities.

In the works of A.A.Lyublinskaya: "... skill is understood as mental activity based on the analysis of conditions and ways to solve a particular problem, the choice of knowledge, methods of action and skills from human experience, their application in the necessary harmony and sequence" [4]. The skill differs from the skills: it is not automated, being one with knowledge, but with a high level of assimilation, a person quickly and usually correctly finds the main question of the task, analyzes its conditions, highlights the most important details and performs all the necessary mental actions. Therefore, practical experience in applying the acquired knowledge is necessary for qualified consolidation. As A.A.Lyublinskaya noted, the process of forming skills is fundamentally different from a skill. Skills are actions that require constant mental work, active mental activity, therefore, with skillful use, exercises not only lead to mastery of various types of activities-operations, but also develop thinking (mental) abilities. The skill formed by the conscious and purposeful assimilation of a system of actions (techniques and techniques of actions) is also used in new changed situations [4, p. 104-107].

N.A.Zimnaya explains that skill is preparation for theoretical and practical activities that are performed accurately, quickly and consciously based on acquired knowledge and life experience and become mature, automated [5, p. 73].

Other authors M.T.Studenikin considers skill to be the ability to carry out any actions, operations. According to its concept, the skill is considered as a more advanced stage of mastering the action [6].

N.I.Zaporozhets believes that skill is the ability to consciously, willingly take concrete actions or consciously achieve goals in changing conditions [7].

Domestic didactic scientists T.S.Sabirov [8], R.M.Koyanbayev [9], A.S.Amirova [10] consider the student's ability to perform certain activities based on skillful knowledge.

From the works analyzed above, the conclusions about the concept of "skills" were divided into several groups:

- the first skills-the unity of knowledge about the method of action and the experience of its implementation;
- secondly, it is the ability of a person to purposefully and creatively use their knowledge and skills in the process of both theoretical and practical actions;
- the third group, skills, are actions that require constant mental work, active mental activity, therefore, with skillful use, exercises lead not only to mastering various types of activities – operations, but also to a set of mental (mental) abilities.

The analysis of the explanations under consideration shows that all scientists recognize the inextricable links between skill and knowledge: knowledge is the basis for the formation of skills; skillful mastery implies mastering rational ways of using knowledge.

Analyzing the conclusions about skill, he clarifies that skills are the ability of a subject to solve educational and cognitive tasks through mental activity based on acquired knowledge [11].

Skill is the unity of knowledge about the method of action and the experience of its implementation. A skill is a set of actions, mental (mental) abilities that require constant mental work, active mental activity. Skill is the ability of a person to purposefully and creatively use their knowledge and skill in the process of theoretical and practical activities.

A skill is the ability of a person to perform an activity based on experience already gained [12].

By skill, we mean the student's tendency to perform certain knowledge-based activities. Skill is the basis of mastery in a particular business [13].

Skill is the result of mastering a new action based on a single rule and using it adequately in solving specific tasks [14].

Conditionally all kinds of skills can be divided into four main groups:

Perceptual, or sensory. They represent a sensual reflection of the properties of a well-known subject that has been previously studied. An example of such a skill would be reading instrument readings, recognizing the necessary signals from the general noise.

Mental (mental or cognitive). They are automated techniques aimed at solving a specific problem. Mental skills allow you to analyze the types of interactions between objects of the material world.

Motor skills - related to motor memory. It is especially important to develop this type of skill in a child. Distinguish between gross and fine motor skills. The first type includes movements such as bending, walking, running, etc. Usually, the development of this type of skill occurs in people according to one pattern. The first skill a child learns to control is eye movement. Fine motor skills are the ability to control objects, transfer them from hand to hand, perform actions that are related to the coordination of the work of the eyes and hands. Examples of skills that fall into this category include buttoning buttons, playing a musical instrument, drawing, writing.

Complex behavioral skills. This type is formed with the direct participation of society. Even in childhood, parents encourage the right behavior in the child and punish the wrong one, which forms his behavioral skills. This category includes the ability to speak in public, managerial and communication skills [15].

Skill, on the other hand, refers to the ability to apply knowledge effectively to perform a specific task or achieve a particular outcome. It involves practical, hands-on proficiency and the capacity to execute tasks with precision. Skills are often developed through practice, repetition, and the application of theoretical understanding.

General academic skills are universal ways of obtaining and applying knowledge for many school subjects, unlike subject skills, which are specific to a particular academic discipline.

Subject skills are mental or physical actions that students must master when learning certain subjects. The school curricula provide a list of necessary skills that students should master.

Subject skills are formed by students only in the process of learning this academic subject and are used mainly in this subject and partly in related subjects. The process of forming subject skills is long and usually takes more than one year, and many of these skills are formed and improved throughout a person's life.

In conclusion, subject knowledge, skills and abilities, of course, will always be relevant for primary school, as they are an important means of developing thinking. And the deeper and more solid the knowledge, the easier it will be for children to assimilate new knowledge and, as a result, the child's thinking will be more flexible.

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ВОКАЛЬНАЯ ПОДГОТОВКА БУДУЩИХ АКТЕРОВ ДРАМЫ, КИНО И РАЗГОВОРНОГО ЖАНРА

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Современное состояние театрального процесса в Республике Казахстан, изменения в обществе, требуют обеспечения качественного обучения специалистов. Наряду с новыми технологиями и актуальными темами в образовательном процессе, проблемы вокальной подготовки будущих артистов являются одной из важных направлений в подготовке студента к профессии, его дальнейшего профессионального развития. Это объясняется тем, что музыка в спектаклях казахского театра играет важную роль и пронизывает все аспекты представления. В казахской национальной драматургии важное место занимает песня. Песня передает эмоции, создает атмосферу, становится основой драматического сюжета. М.О.Ауэзов писал: «Чем не театр то, что делали акыны, состязаясь в искусстве песни на различных праздниках и тоях, в местах массовых сборищ народа? Разве их песни, их стихи не поднимали дух и стариков, и молодых, не взывали к духам предков? Разве народная песня «Жар-жар», и поныне исполняемая на проводах невесты как диалог между мужчиной и женщиной, разве это не театр, рожденный самим народом?» [1.с. 115] Природная музыкальность, умение передать пением психологическое состояние своего героя в соответствии с драматургией постановки характеризует творчество выдающихся актеров прошлого и современности казахского театра и кино - Елюбая Умурзакова, Шакена Айманова, Сабита Оразбаева, Торгын Тасыбекову, Раушан Ауезбаеву, Тунгышбая Жаманкулова, Дарии Жусип, Бекжана Турыса, Ерлана Биляла и многих других.

Процесс вокальной подготовки обучающихся в Казахской национальной академии искусств имени Темирбека Жургенова по профилям «Артист драматического театра и кино» и «Артист разговорного жанра» отражает актуальные педагогические задачи современного образовательного процесса.

Обучение вокалу является сложной и многогранной педагогической задачей. Для ее успешного решения необходимо активное практическое участие студентов в образовательном процессе. Важно развивать у студентов такое качество, как готовность к профессиональному развитию. Но не всегда это возможно, так как уровень вокальных данных поступающих на образовательную программу «Актерское искусство» по профилям «Артист драматического театра и кино» и «Артист разговорного жанра» бывает разным. Так, при прослушивании студентов по вокалу на начальном этапе занятий их можно разделить на три основные группы:

1) имеет достаточный объем голосовых данных, тембровую окраску, достаточно развитый диапазон голоса, чистоту интонирования, хорошая слуховая координация и дикция, выразительное исполнение песен.

2) имеет небольшой объем голосовых данных, тембровая окраска не выразительна, не большой диапазон, интонирует не чисто.

3) объем голосовых данных небольшой, слабая координация звуковысотного слуха и голоса
Процентное соотношение этих трех групп в разные годы варьируется, но представителей первой группы бывает всегда меньше.

Исходя из первоначального вокального уровня подготовки студента, педагог выстраивает индивидуальный план работы с обучающимся. Занятия проводятся индивидуально. Так, для студентов, имеющих небольшой объем голосовых данных, со слабой координацией слуха и голоса, педагог подбирает упражнения для развития слуха, ритма и элементарные вокальные распевки в диапазоне терции, кварты, квинты. В дальнейшем диапазон распевок расширяется, ритмический рисунок упражнений усложняется. Большое внимание уделяется навыкам глубокого и нефорсированного дыхания, пению на опоре.

В процессе работы со студентом снимаются зажимы, устраняются различные голосовые дефекты, такие как: горловой призыв, гнусавость, открытый звук, форсировка, фальшивая интонация, вялое звучание, «подъезды». Для устранения дефектов носового призвука, «белого звука» активизируется работа мягкого нёба, а сип в голосе устраняется при помощи твердой атаки и специальных упражнений, пропевая их, чередуя стаккато и легато с опорой дыхания. С целью устранения «качки», тремоляции необходимо работать над снятием напряжений, чтобы гортань могла работать свободно. При форсированном звучании рекомендуется перейти на произведения лирического характера, не требующие исполнения на большом эмоциональном подъеме. Фальшивая интонация устраняется в процессе одновременной работы над дыханием (пение на опоре), резонаторными ощущениями, работы гортани, дикции и фразировки.

Важное место на занятиях вокалом отводится пению упражнений (распевок), которые являются основой базовых приемов пения. При помощи них формируются правильные певческие навыки, необходимые для профессионального певческого голоса.

На кафедре сольного пения Казахской национальной академии искусств имени Темирбека Жургенова сформирован вокально-педагогический репертуар для студентов профилей «Артист драматического театра и кино» и «Артист разговорного жанра». В соответствии с программой по вокалу, обязательными произведениями для прохождения в семестре являются – классический романс, казахская народная песня, произведение современного композитора. Учебный репертуар способствует решению не только вокально-педагогических задач, но и обеспечивает формирование будущих артистов профессиональными компетенциями. При подборе учебного репертуара наряду вокальными данными студентов, учитываются уровни психофизического и личностного развития. Все эти факторы способствуют продуктивности решения вокально-исполнительских задач.

Для студентов профиля «Артист драматического театра и кино» и «Артист разговорного жанра» первостепенное значение имеет изучение казахских народных песен и вокальных произведений композиторов Казахстана. В самом начале обучения вокалу в педагогический репертуар вводятся несложные для исполнения песни. В дальнейшем, в соответствии с поэтапным подходом к вокальной подготовке актера, происходит постепенное усложнение учебных задач и содержания занятий, уровень исполнительских требований усложняется. С учетом динамики певческого, актерского и личностного развития студента усложняется учебный репертуар, органично вводятся произведения с более сложным ладово-интонационным и ритмическим строением. Изучение вокальных произведений разных жанров, стилей, эпох способствует достижению профессионального уровня исполнительства.

Особое внимание уделяется работе над текстом. Педагог раскрывает специфические особенности орфоэпии, фонетики и сингармонизма казахского языка в пении. Анализ текста дает понимание поэтического содержания вокального произведения. Педагог раскрывает логическую связь текста с музыкально-выразительными средствами. Анализ текста способствует пониманию, эмоциональному восприятию музыкального образа, пониманию стилистических особенностей произведения. Педагог добивается, чтобы студент в своем исполнении смог донести до слушателя смысл поэтического текста.

В процессе изучения вокальных произведений для актеров драматического театра, кино и разговорного жанра особенно важно понимание подтекста - внутреннего содержания слов песни, истинных намерений. «Что значит — вскрыть текст? Это значит — определить, почувствовать все, что скрывается под словами, за словами, между словами. А скрываются там невысказанные или недоговоренные мысли, тайные намерения, желания, мечты, образные видения, различные чувства, страсти и, наконец, конкретные действия, в которых все это объединяется, синтезируется и воплощается. Вместе все это принято называть подтекстом» [2.с.164] Раскрывая подтекст, исполнитель обогащает песню внутренним смыслом.

Вокально-исполнительские задачи будущего актера драматического театра и разговорного жанра неразрывно связаны с целями и задачами базовых дисциплин актерского искусства - мастерства актера, сценической речи, основ сценического движения и танца. В процессе изучения вокального произведения, преподаватель работает со студентом над созданием сценической жизни песни. Работая над предлагаемыми обстоятельствами, студент должен обосновать свои сценические действия. Эта работа сопряжена с изучением жанра, истории создания и бытования песни. В результате обучения вокалу будущий актер постигает принципы действенного пения, которые проявляются в манере исполнения вокального произведения. Большое значение имеет выразительное воплощение мелодики и текста, ритмических и динамических особенностей, понимание смысла произведения. Действенное пение благодаря влиянию на зрителя, создает яркое эмоциональное впечатление от созданного актером музыкально-сценического образа.

В результате изучения дисциплины «Вокал» у будущих актеров драмы, кино и разговорного жанра совершенствуется творческий потенциал, развивается образное и музыкальное мышление, воображение, происходит обогащение познавательного опыта, формируются профессиональные компетенции в области театрального искусства.

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Political Studies

THE GEOPOLITICAL SITUATION IN THE BALTICS

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Abstract: The article investigates Sweden's and Finland's motivations for abandoning their long-standing non-aligned policies and joining NATO following Russia's beginning of a full-scale invasion of Ukraine in February 2022. The country's choice appears to be in the best interests of the United States, which has long tried to fill the geopolitical void left by the fall of the hostile Soviet bloc and the Soviet Union itself. Finland and Sweden were the missing links in the Baltic area and Northern Europe as a whole Washington and NATO. The report examines the key implications of these geopolitical shifts in the Baltic area. These include an increasing disparity in armed forces with NATO, a significant expansion of the border with the Alliance, NATO acquiring new territorial and infrastructure capabilities to deploy reinforcements and military equipment from member countries to the region, the potential stationing of nuclear weapons on the territories of new member countries, the risk of blockading the Kaliningrad region, as well as the Gulf of Finland and the Danish straits. It is emphasized that, given the current situation, Russia must contemplate alternative eventualities in the Baltic area. On the one hand, it must protect its interests while causing the least amount of harm. However, it is critical to avoid an unchecked escalation of hostilities with NATO.

Keywords: baltic region, sweden, finland, russia, nato, armed forces, naval activity, nuclear weapons, infrastructure, blockade, sanctions

Sweden and Finland's decision to join the North Atlantic Alliance (NATO) was one of the most significant manifestations of the steep escalation in tensions between Russia and the West. For a long time (the first for more than two centuries, the second for the whole period following WWII), these countries refused to join military alliances. They filed a comparable application to NATO in May 2022, and during the Alliance summit in Madrid in June of that year, they received an official invitation to join NATO. The possibility of Sweden and Finland joining the North Atlantic Alliance had recently increased, according to some Russian experts at the time, especially in light of the growing "threat" coming from Russia in the "post-Crimean" period. In any case, they stated that their rapprochement with NATO is an irreversible process; the only questions are as to how far it will go and how precisely it will be received in Moscow. In theory, Helsinki and Stockholm's decision to renounce their neutrality was already signaled by their admission to the EU in 1995. This is because, despite the aspirations of certain EU leaders, the EU is unable to forge a distinct European identity in the areas of security and defense without close cooperation from NATO. The establishment of the North Atlantic Treaty Organization, however, was the decisive factor in the governments of these two northern nations' decision to abandon their non-aligned policy. This was made necessary for the Russian leadership by their refusal to consider the contents of the agreements that were passed to them by the United States and NATO.

In theory, Helsinki and Stockholm's decision to renounce their neutrality was already signaled by their admission to the EU in 1995. This is because, in spite of the aspirations of certain EU leaders, the EU is unable to forge a distinct European identity in the areas of security and

defense without close cooperation from NATO. The establishment of the North Atlantic Treaty Organization, however, was the decisive factor in the governments of these two northern nations' decision to abandon their non-aligned policy. This was made necessary for the Russian leadership by their refusal to consider the contents of the agreements that were passed to them by the United States and NATO. Moscow's suggestions for treaties on mutual security before the end of 2021. Had the Russian special operation in Ukraine not started, there's a good chance that internal deliberations in Stockholm and Helsinki about whether it would have been wise for these two countries to join NATO would have gone on indefinitely. Additionally, these nations would have continued to be drawn into the Alliance's joint military activities, particularly increasing their involvement in joint military drills with him. Now, most of these countries' ruling elites believe that these beliefs are no longer suitable because Russia has crossed a line in Ukraine. The results of public opinion polls justify both states' drastic departure from their long-term geopolitical positions. In Finland, the share of citizens in favor of joining NATO surpassed 50% for the first time in the country's history, according to a survey done by the YLE media business practically immediately after Russia began its special operation in Ukraine. On the same days, the share of supporters of joining the alliance in Sweden was slightly lower: 41% were "for," 35% were "against," representing a 4% increase in the share of supporters compared to the January survey.

The events that began on February 24, 2022, proved to be a win for a group of politicians in both Nordic nations who have long prioritized maximal rapprochement with NATO. Among them is former Swedish Prime Minister K. Bildt, who is one of the key architects of the EU Eastern Partnership program, which aims to fully integrate the European countries of the former Soviet Union into the Western orbit. Following the formation of the NWO, Bildt became one of the most vocal champions of Sweden and Finland's entrance to NATO, believing that their new status would dramatically alter the European security architecture and enhance NATO's European pillar. From the beginning of the Ukrainian crisis in 2014, Finland's ex-president M. Ahtisaari and former foreign minister A. Stubb were among the most vocal supporters of joining the North Atlantic Alliance. For the first time since the Cold War's end, NATO expansion is taking place not at the expense of former socialist countries that were part of the Warsaw Pact or some former Soviet republics, but by accepting states that were part of the world capitalist system but maintained a non-aligned status. Simultaneously, in terms of armed forces compliance with NATO requirements, as well as political criteria, Helsinki and Stockholm could be admitted to the Alliance without the intermediate and preparatory stages that former members of the Warsaw Warfare Force and the Baltic countries went through. Helsinki and Stockholm are actively involved in providing military aid to Kyiv, including the delivery of weaponry and the training of Ukrainian military personnel in the use of various types of Western military equipment. The "Russian threat" after the start of Moscow's SVO outweighed the argument of that part of the expert community, the political and business elite of Finland and Sweden, that their joining NATO and taking on corresponding obligations was fraught with the risk of uncontrollable tension with Russia or involvement in hostilities in the interests of those members of the Alliance who are geographically far from the Baltic region. (in particular, Turkey). This argument, right up to the announcement by these two northern countries in 2022 of a break with non-aligned politics, gave hope to some Russian experts and observers that the chances of these states abandoning neutrality and joining NATO would be small for a long time, and Russia itself would not the neutral Nordic countries should be treated as a sub-region that is inevitably "drifting" towards NATO.

Justifying its intention to radically revise its national and regional security strategy, the Finnish government stated in its April 2022 report, blaming the changed situation entirely on "Russia's aggressive and revanchist policy," that "Finland's foreign and military policy, its active and preventive diplomacy strengthens the security of Finland and our neighboring regions, both through national action and international cooperation." The longer the conflict in Ukraine

continues, the more difficult it is to analyze its implications. In reaction to the changing security situation, Finland must increase its security and defense capabilities, as well as create long-term collaboration with critical partners." Simultaneously, the study underlines that the country preserves "sovereignty in decision-making" and "makes decisions in the field of foreign and security policy independently." The decision to submit an application to join NATO in Sweden was somewhat more contentious (especially since the question of joining the Alliance was traditionally of an ideological nature and reflected the contradictions between, first and foremost, "NATO skeptics"- Social Democrats- and supporters of NATO rapprochement from the right camp). This is demonstrated by discussions in a working group formed in March 2022 by a resolution of the country's government of representatives from various political parties represented in the Riksdag (Parliament). Simultaneously, the study underlines that the country preserves "sovereignty in decision-making" and "makes decisions in the field of foreign and security policy independently." The decision to submit an application to join NATO in Sweden was somewhat more contentious (especially since the question of joining the Alliance was traditionally of an ideological nature and reflected the contradictions between, first and foremost, "NATO skeptics"- Social Democrats- and supporters of NATO rapprochement from the right camp). This is demonstrated by discussions in a working group formed in March 2022 by a resolution of the country's government of representatives from various political parties represented in the Riksdag (Parliament). The report issued as a result of this group's work, as well as the one described above in the case of Finland, noted the deterioration of Sweden's military-political situation as a result of "Russian aggression" and the danger of Russian "aggressive actions" against itself, but focused more on the costs for the country of potential NATO membership (including those associated with Stockholm's possible involvement in international conflicts).

The statement advocates for the fullest preservation of Sweden's cooperative mechanisms in the fields of security and international influence, which it was able to create during its non-aligned position. It was no coincidence that Sweden and Finland announced their intention to join NATO shortly after Russia launched the North Atlantic Treaty Organization in Ukraine, and that this announcement coincided in time with the holding of a referendum in Denmark on June 1, 2022 on the issue of repealing the provision that excluded participation countries from the European Union's Common Foreign and Security Policy (CFSP).

More than two-thirds of those voting in the referendum supported the repeal of this rule, which had been one of the pillars of Copenhagen's limited status in the European integration project until now. In fact, against the backdrop of a sharp deterioration in Europe's military-political situation and confrontation between Russia and the West, any attempts by the European Union to forge its own identity in the military-political sphere, independent of NATO and the US, become irrelevant, and various projects within the framework of the CFSP strengthen the Atlantic rather than the European as a starting point in the strategy for a united Europe.

According to one Russian expert, the successful supporters of removing the provision limiting Denmark's participation in the CFSP "were able to take this referendum away from the plane of criticism or support for the EU and turn it into a question of protecting European values, solidarity with Ukraine, and European partners who are going to unprecedented lengths." True, the ratification of the protocols on the accession of two states (particularly Sweden) to the alliance encountered some difficulties, owing primarily to the conditions imposed by the Turkish leadership under the guise of Stockholm's unwillingness to take adequate measures against Kurdish groups (primarily the Kurdistan Workers' Party- PKK), which Ankara considers terrorist. The protocol on Finland's entrance to NATO was similarly postponed by the Turkish parliament, although it was nonetheless carried out in March 2023. Hungary took a similar stance on this topic, expressing displeasure with Helsinki and Stockholm's intervention in domestic affairs under the guise of "anti-democratic" inclinations in the government of V. Orban. The actions of Ankara and Budapest went

against the initial intention of Helsinki and Stockholm, which was to join NATO at the same time. Some Swedish experts are concerned that such a desynchronization between Finland and Sweden in the process of joining the Alliance, as well as the possibility of further delaying Stockholm's accession to it, will give Russia an opportunity to exploit the emerging effect of the "gray zone" in the region and regard Sweden as a weak link in the Western chains. According to M. Nilsson, an associate professor at the University of Jönköping, in this position, Moscow will rely on intensifying operations to influence public opinion in the region's countries, and even on inciting internal conflict.

However, based on how Turkish President R. T. Erdogan gradually moved away from his "principled" attitude and made compromises to the majority in NATO (and particularly to Washington) on the question of Stockholm's membership in the Alliance between 2022-2023, it can be regarded resolved. True, the incompleteness of the Swedish accession process was reflected in the final communiqué of the Vilnius (July 2023) alliance summit, which stated only that NATO "welcomes Finland as the latest member of the Alliance" and that "NATO membership makes Finland safer and NATO stronger."

Erdogan signed the protocol for Sweden's NATO admission and sent it to the Swedish parliament for confirmation by the end of October 2023. Because Budapest's attitude remains an impediment to resolving the "Swedish issue," it is possible that Stockholm's admission to NATO may take some time, but it is clear that both Finland and Sweden will be absorbed into the Alliance. Russia's geopolitical position, as well as its political, economic, and military stance in the Baltic region, are changing- and not for the better. von Kleist for the "historic step in response to Russia's war of aggression" at the Munich Security Conference in February 2023. This prize, named after the originator of this international conference, was accepted by Sweden's past and present Prime Ministers M. Andersson and U. Kristersson, Finland's President S. Niinistö, and this country's Prime Minister S. Marin.

US interest in the Baltic region as an instrument of proxy war against Russia. After the end of the Cold War, when the United States and its allies in military-political alliances (primarily NATO) sought to make the most of the emerging "unipolar moment," the expansion of the North Atlantic Alliance and its expansion beyond the zone of responsibility limited by Art. 5 of the Washington Treaty, became one of the foundations of American geostrategy. This also applied to the Baltic region, where Washington needed, despite the inevitability of a negative reaction from Russia, to promote the entry into NATO of Estonia, Latvia and Lithuania and the maximum involvement of the then non-aligned Finland and Sweden in the sphere of NATO activity, including for the possible protection of the Baltic countries due to their geographical semi-isolation from the main territory of the Alliance.

The major criteria for a significant shift in Finland and Sweden's foreign policy orientation following Russia's initiation of a special military campaign in Ukraine in February 2022, which expressed itself in their choice to abandon non-aligned politics and join NATO, are analyzed. It should be highlighted that this choice serves largely the interests of the United States, which has always wanted to fill the geopolitical vacuum left by the departure of the opposing pole in the figure of the USSR and its sphere of influence since the Cold War's conclusion. In this perspective, Finland and Sweden were the missing links in the Baltic area and Northern Europe in general. The key implications of these changes for Russia in the Baltic area are discussed. They are manifested in a growing power imbalance with NATO, a significant increase in the alliance's line of contact, an increase in territorial and infrastructural capabilities for the transfer of NATO countries' armed forces and military equipment to the region, the possibility of placing nuclear weapons on the territories of new member countries, the danger of blocking the Kaliningrad region, as well as the Gulf of Finland and the exit from the Baltic Sea to. It is suggested that Russia, in the current scenario, should allow for the possibility of multiple choices for the evolution of the Baltic crisis,

on the one hand, to protect its interests, and on the other, to avoid various scenarios of an uncontrolled increase in tension with NATO, which carries the risk of a military clash.

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Philosophical Sciences

ABOUT THE HUMANISTIC MEANING OF PHILOSOPHY

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Annotation: The article makes a philosophical analysis of the problem of humanism in the context of the modern historical and social approach. The author examines the antithesis "humanism-anti-humanism" from the position of ideological and axiological similarity. The prospects for social and humanistic progress as a transformation of the humanistic direction in philosophy are considered. The author of the article does not agree with the position that humanistic discourse has no disciplinary affiliation and argues that this phenomenon is of a philosophical nature. The article asserts the thesis that humanism is in the sphere of social philosophy.

Keywords: humanism, anti-humanism, philosophy, ethics, values, society, modernism, postmodernism, paradigm, identification.

"not self-denial and selfishness - but self-love, not the denial of the individual, but the affirmation of one's truly human self - these are the highest values of humanistic ethics", - wrote Erich Fromm. In humanistic ethics, man is the "measure of all things," and there is nothing more valuable than human life. A person finds himself and his happiness only in kinship and solidarity with people. Moreover, Fromm understands love for one's neighbor not as a higher, divine power descending on a person, or a duty assigned to him, but as a person's own strength, thanks to which he becomes related to the world and makes the world truly his own. Awareness of this strength and ability to love the world is associated with a person's sense of self-worth and the concept of honor. a conscious sense of one's own responsibility to one's conscience and society for the adequacy of one's actions, feelings and thoughts to universal, cultural, professional, and corporate moral values. The priority among the listed values are universal human values.

A short historical excursion: as you know, in the narrow sense of the word "humanism" is defined as an ideological movement that began in the 14th century. in Northern Italy, and in the 16th century. covering most of Western Europe. This era was called the Renaissance. The phenomenon of Western European humanism is associated with the process of transforming the ideas of the spiritual culture of the ancient world and Christianity into humanistic values of practical life. This process had a dynamic and adversarial character, which manifested itself in the broad social movement of the Reformation.

The teaching that, in our opinion, most adequately explains the moral problems of our time belongs to Erich Fromm, an outstanding philosopher, sociologist, and psychologist, who in his

philosophy showed that it is impossible to understand a person outside of his relationship to the world, other people, nature, and himself; that ideals such as truth, justice and freedom can be genuine human aspirations. He created the doctrine of two types of ethics - humanistic and authoritarian. According to the humanistic concept of ethics, the foundations of "virtue" are laid in the very character of a mature and integral personality, and vice lies in indifference to one's "I".

Humanism is the most important line of cultural development, one of its dominants, which became influential in the first half of the 20th century. and received even greater recognition at the turn of the 20th - 21st centuries. At the beginning of the third millennium, it can be stated that on a macro-historical scale the development of humanistic culture was increasing, albeit in a discrete manner, and for some countries and regions continuously (for example, Great Britain, the USA, Canada, etc.). In the modern era of digitalization, world culture has received a new spatial dimension and is experiencing a "humanistic cultural renaissance" (P. Kurtz). The main feature of the new post-industrial civilization is associated with the strengthening of democracy, science and education, which are the most important elements of a humanistic worldview. Interest in humanism is due to the changed conditions of human life in society: the importance of law, intellectual technologies and education has increased, the ideological freedom of man has increased, the importance of freedom of conscience has increased, the humanization of social relations continues.

In modern theory and cultural history, significant amounts of information have been accumulated related to the study, on the one hand, of the ideological content of modern humanism, on the other, with its presence in modern society, with its various practices in it. In these circumstances, there is a need for scientific identification, reconstruction and evaluation of modern humanism as a worldview that functions in culture and in one way or another determines its appearance. As a cultural phenomenon, it manifests itself primarily in the field of scientific research, social work, social and educational practice, but especially at the level of everyday life as a way of life and a means of cultural communication. This phenomenon of culture is an ideological ferment that creates an integral space of culture with the unity and diversity of its ideas, values, lifestyles, traditions and ideals. Finally, this phenomenon has the status of culture and, as a worldview, is consciously cultivated at the individual and social level - from the family to the planetary. And if culture is a historically determined level of development of society and human creative powers, then humanism in this case is the quintessence of this culture, since at the center of this worldview the main idea is the idea of man, universal fundamental values and advanced scientific methods of assimilation, development and socialization of these values.

Therefore, we can rightfully talk about a phenomenon called "modern humanism", since over the past half century a deep problematic shift has occurred in its development, and in the social - an expansion of the scope of its existence, turning it into a significant and authoritative world movement. The rationale for the scientific problem of the research is due to the fact that at the present stage of development of world history, humanity's search for its civilizational and cultural identification, as well as the main cultural paradigms competing with each other in the beginning of the third millennium, is becoming increasingly intense.

Identification of modern humanism allows us to clarify the configuration and relationship between the humanistic paradigm itself and other paradigmatic forms of culture: postmodernism, world religions, traditionalism, fundamentalism, post-postmodernism, neo-modernism, post-enlightenment. Philosophers argue that in the course of scientific research of modern humanism, clarification of the cultural situation of the era, a number of significant structural and methodological problems arise, the solution of which allows us to obtain a more articulate and adequate picture of modern Russian and world socio-cultural dynamics.

Taking into account new trends in culture, humanists recognize the need for a rational, based on the achievements of social progress, revision of the system of human values, the creation

of a universal cultural space as a dialogue of different spiritual traditions, the basis of human communications and harmony. Thus, they contribute to the strengthening of social stability, moral reconstruction and consolidation, and the dissemination of generally accepted values. Meanwhile, it is precisely this aspect of the activities of humanists that causes a negative reaction from conservative traditionalists and religious fundamentalists.

In modern conditions, postmodern and religious-conservative criticism is trying to prove the collapse of humanism, its disappearance from social and spiritual life. Humanism must be understood not only as a fact that took place in the past, but as a significant area of modern culture. The origin and spread of humanistic ideas in the era of the "Axial Age" (K. Jaspers) is an act of fundamental importance. Modernizing and developing, humanism has steadily strengthened its presence in culture, increasingly determining the spiritual destiny of humanity. Humanism fulfills its mission in the life of the world community as a strategic partner of reason and science, as the basis of education, upbringing and enlightenment, as the intellectual, moral and legal basis of democracy. In general, it is unique and productive as one of the most effective integrative mechanisms in the formation of basic values and dynamics of world culture of the 21st century.

Humanism in the 20th century. experienced a difficult and dramatic stage in its history. However, the tragic events of two world wars and anti-humanism in its various manifestations cannot be considered as evidence of the collapse of humanistic ideas. It was humanism, as an ideological universal, that offered humanity values that gradually formed the foundation of modern democracies, international law, movements for human rights and environmental protection. This circumstance is also a statement of the relevance of studying domestic and foreign experience of humanistic research.

Philosophy as a humanitarian discipline since its inception has been driven by two key questions: "what does the world consist of?" and "how do people experience the world?" Since philosophy acts as a theoretical form of expression of the essential foundations of being and knowledge, it is a holistic theory of the world, a holistic worldview. The theoretical form of worldview, transformed into the form of social consciousness, already acts as a theoretical way of comprehending it. Philosophical knowledge about the world, turning into a form of social consciousness, is filled with subjective content. In philosophy as a form of social consciousness, the theoretical picture of the world becomes a measure and method of human orientation, it acquires the status of a subjective ability. When a person evaluates and describes the world in this way, then in this case the universal provisions perform an ideological function. They are the ultimate foundations of a person's practical-spiritual relationship to the world. Thus, philosophy performs various functions: it explains the world, with its help the world is cognized and transformed, it determines the value orientation of a person, helps him comprehend his place in the world, realize the purpose and meaning of his life.

The effective humanistic meaning of life is revealed through the actualization and objective realization of a person's inner potential, the active identification of his integral nature; it gives value to self-expression or self-affirmation of the individual, the comprehensive and harmonious development of all its essential forces, internal inclinations and talents, feelings and mind. At the same time, this is self-knowledge, the answer to the question of what this or that person can do, what he is capable of. Since self-realization is one of the basic needs of a person, it can be argued that the meaning of life is implied by human nature itself and essentially follows from it. In other words, it represents a generalized value understanding of the highest, albeit basic, human need. The meaning of life lives by constant comprehension, reflection on how and with what we live. The mechanism of action of the meaning of life can be compared with Kantian free causality, "causality from freedom." And, let us add, from the future, "causality from the future." The main goal of life is always ahead, at least while we live, are alive. At the same time, it is constantly

realized in the present and goes into the past. The question "why do I live?" sooner or later the question becomes "why did you live?" But even this last question has a perspective dimension, coming to us from the future, albeit in the form of hope, hope.

The eternal question about the meaning of life is the main question in the system of spiritual values; each person and each era is solved specifically and, as it were, anew. That is why this question, which determines the system of values, the inner being of a person, personality in the dynamics of socio-psychological relations, is relevant today for everyone who thinks and talks about the fate of man and humanity. Philosophy is one of the means of expressing humanistic ideas, and therefore it is philosophy that has gone through a long historical path of preparation and formation of humanism as an integral philosophical phenomenon.

Humanism and anti-humanism, as is known, are two opposing forms of reflection of the really existing problems of human existence at the present stage in culture. And culture is understood as a holistic intra-dialogue phenomenon. At the same time, it is important to understand that representatives of humanism and anti-humanism are internally close to each other, since they are interested in understanding the problem of preserving the human in man and analyzing the degree of this preservation. Supporters of these positions are concerned about the risks of freedom and innovation, although the former recognize them as inevitable and propose to act in such a way as to minimize the possible negative consequences of freedom and innovation, and the latter are looking for a solution through minimizing development and freedom, because such development leads to a violation of the moral and social balance in general. Both humanists and anti-humanists are concerned about the future of humanity and thus embody, respectively, latent and potential (anti-humanists) or open, conscious (humanists) humanity. At the same time, they offer various scenarios for the development of cultures, both national and global, actually bringing them to the multicultural level and to the court of history. The dialogue opposition "humanism-anti-humanism" influences the formation of a worldview, axiological preferences and ideas about a decent way of life for people, which ultimately determines the very dynamics and dialectics of culture, its versatility and inconsistency.

At the same time, the reconstruction of modern humanism as a cultural phenomenon and a powerful factor in sociocultural dynamics has revealed an extensive problematic field for further analysis. Thus, in our opinion, the problem of the relationship between the genetic and social in human nature, and the comprehension within the framework of the humanistic concept of man and society of such phenomena as human atonality, the ineradicable competitiveness of human relations, their conflict and rivalry, is especially acute. These features do not negate the humanistic understanding of man, but they warn against the idealization of human nature and require a realistic analysis by researchers of humanism.

The structure of modern humanism is not only diverse; it is distinguished by its "multiquality". To indicate its peculiarity, the Russian philosopher Kudishina A.A. proposes to use the concept of "multidimensional humanism". If we consider humanism in the categories of essence and existence, then there is every reason to distinguish both the diversity of its essential qualities and the diversity of forms of existence, that is, presence and functioning in culture. The term "multidimensional humanism" allows us to cover its value system, methods and psychology of thinking, its research practice, types of socialization and lifestyles. The idea of multidimensionality allows us to identify humanism as an open body of knowledge. Its main components are anthropological, philosophical, psychological, pedagogical, general political, evolutionary, environmental and general cosmological and biological ideas. Using the term "multidimensionality," the complex nature of the essence and existence of humanism, as well as their complex interdependence and interconnection, is captured. Multidimensional humanism can view man as a multidimensional being who lives in a multidimensional world.

Modern humanism recognizes itself as an evolving cultural paradigm, a worldview system of knowledge and methods, incorporating both the latest and the most viable and realistic values and views on man, society and the world, already tested by time and culture. This paradigm will develop as a constantly renewed intellectual, moral, scientific, educational and socio-cultural phenomenon, gravitating towards acquiring a planetary scale. Modern humanism is considered as an integral part of the New Enlightenment project, which claims to be the meaningful mainstream of cultural transformations of our time.

The paradigm of modern secular humanism positions itself, on the one hand, as an alternative to postmodernism, theism, technocracy, bureaucracy and nihilism, on the other hand, it declares itself to be the heir to the traditions of humanism of Antiquity, the Renaissance, the Enlightenment and modernism, including in its basic content as a cultural phenomenon, scientific worldview, free-thinking, various forms of non-theistic beliefs, critical thinking, universal human existential, ethical, civic and environmental values and general democratic social ideals.

Modern humanism is a component of the neomodernism paradigm, opposed to the postmodern paradigm; it constitutes the value and ideological core of neomodernism as post-postmodernism.

The history of world culture testifies to the presence in it of a certain ideological dominant - humanism, which is, first of all, a form of anthropological, psychological and axiological anthropocentrism. The profound historical transformations of humanism testify to the high degree of adaptability of this worldview. In exceptionally difficult conditions of the 20th century, he could not help but take new forms and change his problematic content.

The consequence of the global socio-anthropological crisis, according to the best minds of the era, was the processes of deindividuation. The variety of goods and services offered, like political pluralism, does not provide individual freedom of choice, but can mask the lack of freedom of a person alienated from his self. A market-oriented society turns a person into a commodity, and her activities into sets of services. Focusing on falsely understood values, in which he is not an end, but a means, a person loses his true self, which leads to frustration and deviant behavioral patterns. As a result, according to philosophers, the modern era, instead of the triumph of individual freedom, turns into a leveling of individuality.

That is why the theme of humanism not only did not lose its relevance by the end of the 20th century, but at the beginning of the 21st century acquired new connotations. Along with the already traditional problems of social alienation, new risks and threats to the "independence" of the individual have appeared in a market society. The development of information technology has only increased the manipulative effect on humans, and the prospects for the mass use of biotechnology create new challenges for individual identity.

The processes that have been developing for more than a hundred years in the social, scientific and humanitarian spheres urgently require a kind of "return" to humanism, or more precisely, they make the emergence of a new humanism urgently necessary. The search for new principles of humanism is what unites thinkers and philosophers today.

Analysis of the latest transformations of humanism allows us to consider them as a reflection of changes in fundamental value systems in modern culture; at the same time, this makes it possible to assume the reverse influence of modern humanism on the world civilization process.

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Economic Sciences

Перспективы развития туристской отрасли Республики Казахстан

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Введение. Республика Казахстан вступила во Всемирную туристическую организацию с момента обретения независимости и благодаря организационному сопровождению в стране проводится своя ярмарка туристских организаций. Сегодня индустрия туризма Казахстана самостоятельное звено хозяйственной структуры; экономическая система, состоящая из комплекса отраслей и подразделений, функции которых заключаются в удовлетворении разнообразного и усложняющегося спроса на различные виды отдыха и развлечений. Этому способствовал коммерческий характер туризма, позволил не только развивать новые формы туризма, но и формировать новые организационные формы деятельности — туристские фирмы.

Туризм имеет отражение на экономику многих государств и представляет собой вид отдыха, оказывает влияние на восстановление сил и трудоспособности человека и соответственно — психофизиологических ресурсов общества, способствуя рациональному использованию свободного времени людей, играет важную роль в трудовой занятости и повышении жизненного уровня местного населения.

Обсуждение и результаты. По итогам реализации Концепции отрасль туризма станет национальным приоритетом экономического развития в Республике Казахстан и одним из прибыльных видов бизнеса, оказывающих мультипликативный эффект для всех заинтересованных сторон – государства, бизнеса и работников. Занятость в отрасли увеличится до 800 тыс. человек.

Приоритетные туристские территории будут обеспечены качественной инженерно-транспортной и туристской инфраструктурой. Будет обеспечен комфорт по пути следования туриста, включая аэропорты, железнодорожные вокзалы и автостанции, а также доступ к туристским объектам, будут установлены благоустроенные санитарно-гигиенические узлы и современные объекты придорожного сервиса. На всех ключевых объектах транспортно-логистической инфраструктуры будет обеспечена стабильная мобильная связь и интернет.

Казахстан будет узнаваемым на региональном и мировом рынках за счет активного странового маркетинга. Будет действовать стратегия, позволяющая популяризировать не только въездной, но и внутренний туризм. Казахстан войдет в топ-50 стран в рейтинге ВЭФ по глобальному Индексу развития путешествий и туризма.

Концепция базируется на принципах качества, конкурентности, рентабельности и устойчивого развития и содержит ряд направлений развития туризма.

Создание и развитие инфраструктуры туризма, логистики. В рамках данного направления будет развиваться строительство подъездных дорог к туристским объектам вне населенных пунктов, а также будет увеличено число койко-мест в местах размещения Казахстана до 280 тыс. в 2029 году.

Планируют увеличить авиасообщение по таким привлекательным туристическим маршрутам, как побережье Каспия (Мангистауская область, город Актау) и побережье озера Алаколь (область Жетісу, город Ушарал).

Для расширения географии и снижения стоимости внутренних авиаперелетов будет проработан вопрос с отечественными авиакомпаниями по открытию новых регулярных авиамаршрутов, удешевлению билетов, а также наработке маршрута в части заполняемости бортов самолетов.

Активно планируют внедрять интермодальные пассажирские перевозки внутри страны, то есть использовать два и более видов транспорта в процессе перевозки пассажиров.

В качестве приоритетных территорий для развития регионального туризма будут выступать Мангистауская область, Туркестанская область, Алматинский горный кластер и другие.

Проведут модернизацию и реконструкцию пунктов пропуска через Государственную границу Республики Казахстан.

На постоянной основе будут проводиться переговоры с авиационными властями иностранных государств по вопросам открытия новых международных авиарейсов.

Создание благоприятного климата, повышение качества сервиса и развитие цифровизации. Продолжится работа по увеличению списка стран, граждане которых смогут посещать Республику Казахстан без виз. Министерством иностранных дел ведется работа по согласованию проектов соглашений с 26 странами, позволяющих освободить от взаимных визовых требований. Среди них: Бахрейн, Доминиканская Республика, Парагвай, Австрия, Саудовская Аравия, Сан-Марино, Венесуэла и др. Это позволит увеличить до 100 количество стран, граждане которых смогут въезжать в Казахстан без визы.

Дальнейшее внедрение «e-Qonaq» (e-Hotel) и мобильных приложений позволит выстроить должный миграционный контроль иностранцев в период пребывания в РК.

В отношении стран Ближнего Востока и Юго-Восточной Азии, а также Индии, Китая, Ирана рассматриваются вопросы:

- расширения перечня стран по системе электронные визы – «e-visa»;
- рассмотрения возможности отмены требования о приглашении;
- рассмотрения возможности упрощенной выдачи виз для иностранных граждан – резидентов ОАЭ.

Для обеспечения безопасности туристов на туристских объектах необходимо предусмотреть требование по информированию территориальных подразделений МЧС о маршрутах передвижения туристов и туристских групп, а также хранения, использования и снятия с учета представленной информации.

Планируется проводить работы по повышению квалификации работников отраслей туризма в онлайн-формате, а также проработать вопрос по обновлению профессиональных стандартов для отрасли туризма.

В целях повышения качества сервиса и доступности туристских продуктов и услуг будут приняты меры по:

1. актуализации стандартов в сфере туризма до международного уровня, в том числе разработке и утверждению новых современных стандартов;
2. внедрению национальных стандартов и увеличению уровня их применения до 10% в 2023 году;
3. внедрению в пилотном режиме системы добровольной сертификации туристских услуг («знак качества»);

4. продолжению внедрения информационной системы «e-Qonaq» (e-Hotel) и реестра гостиниц с обязательным включением в него субъектов мест размещения: гостиницы, хостелы, санатории и др.;

5. совершенствованию механизма классификации мест размещений.

Для обеспечения посетителей региона всей необходимой информацией, в том числе о расположении туристских объектов, описании деятельности и перечне предоставляемых услуг на местах, будет продолжено развитие цифровой платформы (национальный туристский портал).

Будут созданы турпродукты по ряду приоритетных направлений туризма: экологический туризм, агротуризм (сельский туризм), этнографический туризм и ремесленничество, кемпинговый туризм и автокараванинг, детско-юношеский и молодежный туризм, лечебно-оздоровительный и медицинский туризм.

Продвижение туристского потенциала на региональном и международном уровнях. Для повышения информированности о туристском потенциале Казахстана необходимо продолжать работу по продвижению и рекламе уникальных природных достопримечательностей на международном рынке, используя такие инструменты, как размещение цифровой рекламы в интернете, видеореклама на телевидении и/или в интернете, продвижение в социальных сетях, PR-продвижение (в том числе сотрудничество с публичными личностями, отраслевыми агентами влияния и лидерами мнений; привлечение популярных ТВ-шоу и т.д.), сотрудничество с популярными в мире туристскими сайтами и порталами, в том числе размещение информации о Казахстане на таких ресурсах, пресс-туры, блог-туры и др.

Выводы. В целях увеличения потенциального охвата планируется изменить концепцию участия Казахстана в выставках, объединив под единым стендом Казахстана субъекты отечественного туристского бизнеса (отели, авто- и авиаперевозчики, туроператоры, и др.), МИО, а также предусмотреть участие в специализированных нишевых выставках, как, например, по тематике MICE для привлечения международных мероприятий в Казахстан, adventure, экотуризм и другие.

Целевые индикаторы в 2029 году: рост объема ВДС в отрасли туризма до 6,3 трлн тг.; увеличение занятости в отрасли туризма до 800 тыс. человек; рост инвестиций в услугах по проживанию и питанию до 260 млрд тг; увеличение экспорта услуг по классификации «Поездки» до 5,5 млрд долларов США.

Ожидаемые результаты в 2029 году: увеличение количества внутренних туристов до 11 млн человек; увеличение количества въездных туристов до 4 млн человек; увеличение охвата гостиниц информационной системой «eQonaq» до 100%; 50-е место в Рейтинге ВЭФ по глобальному Индексу развития путешествий и туризма.

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SIX SIGMA ANALYSIS OF REMOTE SERVICE QUALITY PROCESSES

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Abstract

This paper explored the feasibility of applying Six Sigma methodology to small organizations in the service industry. In particular, the approach of Six Sigma methodology was studied to measure the level of customer satisfaction in remote services on the example of one pharmacy chain. In the course of analyzing the processes of this pharmacy chain, the study revealed the existing deviations regarding the quality of remote services in this network of pharmacies is at the level of 3.8 sigma, which indicates a rather low quality of services provided. Also, the analysis of processes through this approach has given the opportunity to determine the frequently made mistakes in the provision of services. In addition, the paper explores the mechanisms that make it possible to eliminate the identified problem field through the use of advanced Six Sigma tools that include both statistical solutions and tried and true methods.

Introduction

The long-term orientation of any company predetermines the need to analyze the company's activities as part of its development strategy. Such analysis may include an assessment of the company's actions for a certain period, what position the company occupies in the market, what improvements have been made recently, whether the existing conditions provide the company to attract more customers. One of the tools that allows to measure the level of customer satisfaction can be the concept of Six Sigma.

Six Sigma is one of the widely used tools in the world of project management and was developed by Motorola engineer Bill Smith in 1986. The Six Sigma concept is a more structured version of Lean, with more planning added to save resources, improve quality, and reduce scrap and problems (Shore and Shore, 2020). The original goal of minimizing the number of deviations of electronic components, later successfully outgrew and became a component in many projects in other areas. It should be noted, the Six Sigma concept has a separate focus on eliminating emerging problems for which a 5-step process known as DMAIC - Define Measure Analyse Improve Control (Pyzdek and Keller, 2018), (Shore and Shore, 2020) has been proposed. Thus, Six Sigma - incorporates statistical and highly technical solutions that rely on tried-and-true methods. These methods are aimed at minimizing the amount of production or service deviations and eliminating the problems that arise.

Materials and Methods

The principle of Six Sigma methodology is to determine the amount of deviation in production or services in order to minimize it. This stage mostly involves the calculation of defects or process losses by statistical calculations. The fact is that in the process of developing the concept of Six Sigma its author Bill Smith was inspired of the works of scientists - quality experts: Schuchart (Wheeler and Chambers, 2009), William Edwards Deming, Koam Ishikava, Genichi Taguchi (Lapidus, 2000). The end result of such a venture marked a major breakthrough for Motorola Corporation to reduce losses. For example, prior to the development and implementation of Six Sigma for quality improvement in terms of scrap, defect counts, losses were between 5% and 10% of annual profits, which amounted to about 800-900 million dollars annually.

In other words, 5-10% of annual revenue was spent on dealing with defects and their consequences. However, after implementing Six Sigma tools, Motorola Corporation was able to save 16 billion US dollars between 1986 and 2001 (Feder, 1993) and (Thompson et al., 2019). Thus, Six Sigma steps involve calculating defects or process losses through statistical mathematics apart from other methods.

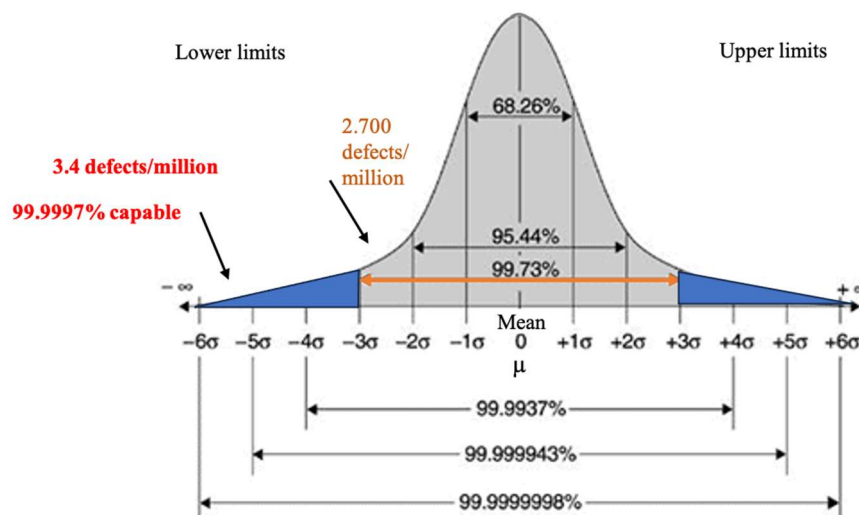
In fact, any process can be represented in the form of a mathematical model, where the main parameters of the process result are the mean value and standard deviation. "Sigma" itself is a Greek letter, which in statistics means standard deviation. Traditionally, performance levels of three sigma, from 2,700 Defects per Million Opportunities (DPMO), have been taken as the norm. Here, the number between 1 and 6 - are an indicator of defect-free production process (Hessing and Ramana, 2015). The latter corresponds to a process that can have no more than 3.4 Defects per Million Opportunities to make it Figure-1 (Feldman, 2023). It was the sixth level that the Motorola engineer defined as the ultimate goal, and this gave the name to the whole methodology.

Figure-1. Six Sigma DPMO formula according to Feldman, (2023).

$$DPMO = 3.4 = \frac{1 \cdot 1\,000\,000}{kx \cdot kx}$$

The main variables are the different parameters responsible for the quality of the process. For continuous data, for example, such as lead times can be hours, the diameter of the technical product of a piston can be in millimeters. In addition to the standard deviation, denoted as σ , the mean value μ and the two extremes of the quality requirements set by the customer or the consumer's satisfactory points Figure-2 are important. A defect or loss is anything that falls outside these parameters. The main prerequisite to increase the number of good products is to increase the tolerance margin, that is the distance between the boundaries, and to reduce the deviation (Hessing and Ramana, 2015).

Figure-2. According to Hessing and Ramana (2015).



Thus, the concept of Six Sigma implies a level of process efficiency at which there are 3.4 defects for every million production operations. The defect-free level of a process is defined by a number that represents the percentage of defect-free production. At the process output, the production of a product or service is characterized by 99.99966 % of defect-free cases. For more

clarity of this stage in the results discussion section the solution of the problem is given in Figure-3 on the example of defects and losses determination of the remote services business process.

In addition to determining the level of business performance, Six Sigma includes tools to correct problems through the five steps of DMAIC - Define Measure Analyze Improve Control. The goal of this step is to improve manufacturing processes, reduce the likelihood of defects and deviations, create a work group and a set of activities to reduce the number of opportunities for defects. DMAIC is saturated with specific process control mechanisms to achieve the goal of the set tasks. For this purpose, a specially selected team of experienced professionals of a certain rank is created. These ranks are defined according to the Six Sigma concept - "Yellow Belt", "Green Belt", "Black Belt", "Black Belt Master", "Six Sigma Champion" - possession of each of them determines the level of mastery of the employee. In turn, the task of such a team comes down to determining what needs to be done to ensure a defect-free workplace, what tools can solve the problems at hand, what processes to improve or implement to avoid similar problems from now on (Hessing and Ramana, 2015), (Pyzdek and Keller, 2018), (Shore and Shore, 2020).

DMAIC Six Sigma algorithms look as follows (Pyzdek and Keller, 2018), (Hessing and Ramana, 2015), (Wheeler and Chambers, 2009), (Lapidus, 2000):

Define - identifies the main problems of the process. In this step, a process improvement project team is formed. The Six Sigma team is given the necessary authority and resources and its area of responsibility is established. In particular, to achieve the Define step, the SIPOC (supplier, input, process, output, customer) or VOC (Voice of Customer) method or mapping of the organization's business processes is used.

The SIPOC method is a tool for describing business processes. It summarizes the input and output data of one or more processes and provides a report, in most cases in tabular form, which are easy to read and allow to quickly identify the key suppliers or customers of the process. It also helps identify gaps in the company's performance in dealing with suppliers directly in the input supply process. Identifies the necessary input tangible and intangible resources, information required to execute the process. Calculates the process of aggregate activities, to transform input and output data. Evaluates the results of the quality of the output of a tangible product or service. It also determines the interests and satisfaction of the customers or consumers.

The VOC method is a set of tools to understand and analyze the needs of both current and potential customers, as well as to gather information about competitors, new technologies and other relevant information. This tool is a good analyzer for customer segmentation, which conveniently identifies a subset of customer groups that may have different needs. This approach optimizes the process and makes it possible to identify where losses and defects occur. This method consists of a list of tools for gathering information regarding Voice of Customer:

- Interviews or surveys or a mixed approach - provides the ability to quantify the data collected or to gain an in-depth understanding of customer needs or desires;
- Kano method - identifies the characteristics of the product or service most relevant to the customer;
- Participated or non-participated observation - provides an opportunity to observe the customer's direct use of the product or service;
- Critical to Quality (CTQ) - translating customer need into product or service characteristics;
- Focus groups are one of the most effective solutions to increase informative customer data.

A business process map is a versatile process documentation tool that schematically depicts all processes to determine what resources are available and what needs to be done. Process mapping helps visualize workflow to improve them. It helps to outline possible contingencies and identify areas for improvement. It also brings to the surface problematic issues, duplication and

delays in processes. This approach helps in optimizing business processes, which reduces wastage and defects.

Measure - Analyze the collected data to determine preliminary assumptions about the causes of deviations that occur. Measurement demonstrates the links between the improved process and customer satisfaction with their requirements and the tasks that need to be performed to improve the process.

Analyze - Six Sigma team checks ideas about causes of deviations in processes, identifies all causes of nonconformities. Then, the team examines and proposes appropriate methods to eliminate the identified causes. The Measure and Analyze phases are the most responsible and complex, and include a variety of analytical tools, including the statistical ones below:

- Causal analysis;
- Flowcharts;
- Pareto charts;
- Histogram;
- Checklist;
- Scatter diagram;
- Control chart;
- Ishikawa diagram;
- Stratification;
- Schuchart charts and others.

Improve - improvement stage, where process improvement measures are developed and prototyping, that is their pilot testing, is conducted. In case of successful piloting, the new process is incorporated into the organization's production process and becomes the current process standard. Some tools of this stage that give the best results are given below:

- 5 S
- Kanban;
- JIT;
- Training: Trainings. Mentoring;
- Business Process Reengineering;
- Automation;
- Cellular Layout;
- Measures for the care of the production site, equipment and others.

Control - controlling the implementation of the newly developed process, documenting it. When a certain improved approach brings proper positive results, this process becomes a standardized structure of the daily process. Further processes are now carried out based on this new standard. And control in this regard is important for continuous analysis of the state and evaluation of the organization. For control there are a number of tools that help to identify the progress of deviations in the process trajectory in a timely manner. These tools are listed below:

- Process Auditing;
- Statistical analysis;
- Retrospective analysis;
- Historical scanning.

It is important to emphasize the above Six Sigma algorithms are complex, multi-dimensional tools that are given in condensed form as information base. However, as a rule, these tools, one way or another, must be deeply internalized by the project team members, whose level, in fact, determines their Six Sigma belt ranks, described above. It is the proper balanced selection of Six Sigma team members that predetermines the success of such a project.

Results and Discussion

The materials studied indicate that process analysis is a very lengthy process, requiring a thorough elaboration of each step. Since Six Sigma consists of many algorithms that include various tools, each of the stage and their steps need to be studied separately. However, in this paper it is possible to give an example of using the measurement of one of the important steps of Six Sigma - determining the number of production deviations in order to minimize it with the help of statistical calculations based on the collected quantitative data. The key in the whole methodology was the DPMO indicator - the number of defects per million opportunities to commit errors, which allowed to calculate the sigma level according to the Table-2 process. The formula looks as follows in Figure 3:

Figure 3. Six Sigma DPMO formulas according to Feldman, (2023).

$$DPMO = 3.4 = \frac{1 \cdot 1\,000\,000}{kx \cdot kx} \quad S_x = \sqrt{\frac{\sum_{i=1}^n (x_i - \bar{x})^2}{n - 1}}$$

where DPMO = (number of defects detected • 1 000 000) / (number of process instances x number of opportunities to make an error).

Yield, %	DPMO	Process Sigma	Yield, %	DPMO	Process Sigma	Yield, %	DPMO	Process Sigma
31	691,462	1	88,5	115,070	2,7	99,81	1,866	4,4
34	655,422	1,1	90,3	96,800	2,8	99,87	1,350	4,5
38	617,911	1,2	91,9	80,757	2,9	99,90	968	4,6
42	579,260	1,3	93,3	66,807	3	99,93	687	4,7
46	539,828	1,4	94,5	54,799	3,1	99,952	483	4,8
50	500,000	1,5	95,5	44,565	3,2	99,966	337	4,9
54	460,172	1,6	96,4	35,930	3,3	99,977	233	5
58	420,740	1,7	97,1	28,717	3,4	99,984	159	5,1
62	382,089	1,8	97,7	22,750	3,5	99,9892	108	5,2
66	344,578	1,9	98,21	17,964	3,6	99,9928	72	5,3
69	308,538	2	98,61	13,903	3,7	99,9952	48	5,4
73	274,253	2,1	98,93	10,724	3,8	99,9968	32	5,5
76	241,964	2,2	99,18	8,198	3,9	99,9979	21	5,6
78,8	211,855	2,3	99,38	6,210	4	99,9987	13	5,7
81,6	184,060	2,4	99,53	4,661	4,1	99,9991	9	5,8
84,1	158,655	2,5	99,65	3,467	4,2	99,9995	5	5,9
86,4	135,666	2,6	99,74	2,555	4,3	99,9997	3	6

Table-1. Six Sigma Conversion Table according to Feldman, (2023).

Further, according to the above formulas and table of the Six Sigma DPMO the activity - namely the quality of remote service - of one e-commerce pharmacy chain engaged in pharmacy delivery was analyzed. The data are studied in 2023 in Almaty, Republic of Kazakhstan according to data provided by a pharmaceutical company that was interested in expanding the network of pharmacies to effectively distribute its new innovative medicaments. Based on the data from this internal study, the following figures were obtained. In the process of delivery of 680 episodes, among others not outlined in this paper, five fundamental defects were defined:

mixed up	12 times
the order was delivered to a different addressee	3 times
tardiness was noted	8 times
electronic order was ignored	6 times
order was delivered 24 hours later	7 times

Table 2. E-commerce pharmacy chain delivery process analysis

According to the formula in Figure 3, the level of customer satisfaction was calculated as shown in Figure 4 below:

Figure 4.

$$\frac{(12+3+8+6+7) \cdot 1\,000\,000}{(680-5) \cdot 5} = 10\,666.66666$$

Reconciliation with Table-2, the six-sigma quality level showed that the quality level of remote service delivery in this network of pharmacies is at 3.8 sigma, which indicates that the quality of services provided is quite low. Also, in order to reach the Six Sigma level, the frequently occurring errors in the provision of remote services were identified, which should be eliminated through the above-mentioned tools of the of Six Sigma.

The findings clearly indicate gaps for both stakeholders, the future medicine supplier and the pharmacy chain. Before the management of a given pharmaceutical company decides to supply its innovative c through a given medical pharmacy chain, it may need to address the identified bottlenecks. In turn, the analyzed pharmacy chain received clear figures and precise indications of problem areas to minimize deviation from the business development course in order to improve the quality of remote services.

It should be noted here that for the pharmacy network only the service of medicines delivery to consumers was analyzed. In this calculation we used the data of consumers in the case when they evaluated the delivery itself, but not the medicines and their actions. In order to obtain accurate figures for further evaluation, it is necessary that the delivery service sites have separate cells for evaluating the delivery itself. Or, if the medicine is being measured, separate cells evaluating the characterization of the medicine's actions. This approach makes it easier to evaluate the path of improvement of the quality of services provided. Since consumers are in the habit of giving feedback on all indicators at the same time, it is necessary to consider this aspect of service evaluation. The data obtained are complex and multifaceted for statistical analysis. For example, during the application of the DPMO formula, the data of some sites could not be correctly evaluated, because there was a risk of obtaining unreliable data due to possible manual intrusions by the organizers of delivery services. Only when the data obtained has a primary source: feedback from consumers, it is possible to rely on the true results obtained in this way. Thus, in case of application of Six Sigma concept or other tools to improve the quality of work and services, it is necessary, organizations engaged in remote e-commerce to implement a point of evaluation cell on the site of the received services.

Conclusion

Generalizing, it can be assumed that Six Sigma is suitable for difficult projects with many new and complex operations, as this approach has many algorithms for actions and calculations. However, the study demonstrated analyzed remote services where Six Sigma has shown its practicality in small projects as well. Hence, it can be believed that this approach allows to realize the elements of small projects too, allows to learn from mistakes and improve the quality of work or services provided. Alduraibi, Winders and Laux (2020) studied the effect of Six Sigma on organizational sustainability based on a five-year management analysis and found a significant relationship. They argue that Six Sigma can help companies reduce process diversity, increase productivity, and achieve competitive advantage through the use of powerful and practical tools and techniques. However, they point out the extreme paucity of research on this topic. A theoretical review has shown the plausibility of such a claim - the mainstream work on the use of Six Sigma is saturated and instructional in nature. Nevertheless, some exploratory work can be observed recently. For example, the application of Six Sigma in the field of Industry 4.0 by the research team of Reis-Pereira *et. al* (2023). However, they also noted the lack of research on Six Sigma integration, although there is a growing interest in the relationship between Industry 4.0 and operational excellence. Specifically, this group of scholars identified a positive relationship between Six Sigma and Industry 4.0. They believe these results are made possible by the availability of broad data and real-time information. This approach they believe allows for better business decisions to be made in a short period of time.

In this regard, it is important to note the expanding application possibilities of Six Sigma to meet the requirements of today's reality. For example, Pyzdek and Keller (2018) report the possibility of successful application of Six Sigma in the areas of Data Mining, Artificial Neural Networks, and Virtual Process Mapping. Neural Net Models, Optimization Using Simulation, Predicting CTQ Performance, and in many other areas. Six Sigma is then seen as both a methodology and a set of performance improvement tools. It is noteworthy that it is applied in organizations of various fields of activity - industrial enterprises, medical institutions, banks, multinational corporations and other business areas.

The strengths of Six Sigma are that the concept provides a clear framework for project implementation and continuous process improvement. By defining goals, then carefully analyzing and revising them, quantitative data can be generated to better understand the project and make better decisions. And while it may take some time to collect, analyze data and learn lessons, it will improve and optimize project delivery processes and thus save resources in the future (Pyzdek and Keller, 2018). Weaknesses of Six Sigma - is, even though the main declared goal is to reduce costs and increase efficiency, but customer satisfaction often comes to the forefront. Given some differences in goals at different stages of the project, teams often have confusion in priorities and it is not easy to avoid (Living, 2018).

However, the studied materials show that process analysis is a very long process, requiring careful elaboration of each step. Since Six Sigma consists of many algorithms that include different tools, each of the stages and their steps need separate in-depth attention, and should be separated into deep-in studies each. In the research process, pulling one of the Six Sigma algorithms out of the overall DMAIC content and using it in a study is often not valuable, especially when it comes to overall business improvement. Although the process of identifying the problem field was highlighted in this paper, there is still a lot of work to be done for that organization to achieve the desired level of remote customer service, the existing solutions of which are cited in the paper. Thus, Six Sigma approach allows to determine the vector of organization development and the level of process efficiency to achieve optimization and perfection of business processes in

small organizations providing services as part of the development of business strategy in the long term.

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Literature

La nature de l'existence humaine selon le stoïcisme et l'existentialisme

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Açar sözlər: insan təbiəti, azad iradə, tale, azadlıq

Ключевые слова: человеческая природа, свобода воли, судьба, свобода

Key words: human nature, free will, destiny, freedom

Le stoïcisme et l'existentialisme représentent deux écoles de pensée philosophiques distinctes, chacune offrant une perspective unique sur la nature de l'existence humaine. Alors que le stoïcisme met l'accent sur l'acceptation du destin et la tranquillité d'esprit, l'existentialisme explore des concepts tels que la responsabilité individuelle dans la création de sa propre essence, la liberté, et l'authenticité.

Ces deux philosophies, offrent des perspectives divergentes sur la nature de l'existence humaine. Alors que le stoïcisme encourage la résilience et l'endurance face aux adversités, l'existentialisme explore des concepts tels que l'angoisse et le désespoir. Cette étude vise à examiner dans quelle mesure les idées stoïciennes de résilience et d'endurance peuvent être comparées aux concepts existentiels de l'angoisse et du désespoir, et comment ces forces contradictoires interagissent dans la vie humaine.

- *Le stoïcisme : résilience et endurance*

Le stoïcisme, une philosophie ancienne qui trouve ses racines dans la Grèce antique, propose une approche de la vie basée sur la vertu, la sagesse, et l'acceptation du destin. Pour les stoïciens, la résilience découle de l'acceptation stoïcienne du cosmos et de la compréhension que certaines choses échappent à notre contrôle. Endurer les épreuves avec sérénité et maintenir un état d'équilibre intérieur sont des principes fondamentaux de cette école de pensée.

- *L'existentialisme : angoisse et désespoir*

En contraste, l'existentialisme, émergeant au XXe siècle, met l'accent sur la responsabilité individuelle, la liberté, et la création de sens dans un monde apparemment dépourvu de signification intrinsèque. Des penseurs comme Jean-Paul Sartre et Albert Camus ont exploré l'angoisse existentielle, la sensation d'une liberté écrasante et la confrontation avec un univers souvent perçu comme indifférent. Le désespoir découle parfois de la confrontation avec le vide apparent de la condition humaine.

- *Des forces contradictoires et leur interaction dans la vie humaine*

La résilience stoïcienne peut être comparée à l'angoisse existentielle dans la mesure où les deux philosophies reconnaissent l'importance de faire face aux défis de la vie. Cependant, la résilience stoïcienne repose sur l'acceptation calme des circonstances, tandis que l'angoisse existentielle découle de la responsabilité individuelle et de la liberté inhérente à la création de sens.

Dans la vie quotidienne, les individus peuvent expérimenter ces forces contradictoires simultanément. La résilience stoïcienne peut fournir un rempart contre le désespoir en offrant un cadre pour accepter les réalités difficiles, tandis que l'angoisse existentielle peut inciter à questionner et à redéfinir la signification de l'existence. Les deux approches, bien que parfois contradictoires, peuvent coexister dans la vie humaine, fournissant un éclairage complexe sur la manière dont les individus naviguent à travers les défis existentiels.

- *Libre arbitre et détermination*

La question du libre arbitre et de la détermination a longtemps été au cœur des débats philosophiques, façonnant les perspectives sur la nature de l'existence humaine. Le stoïcisme et l'existentialisme, bien que séparés par des siècles d'histoire philosophique, proposent des réponses distinctes à cette question fondamentale.

Pour les stoïciens, la vie humaine est inextricablement liée à un ordre cosmique préétabli. Bien que les événements extérieurs soient déterminés par le destin, les stoïciens soutiennent que l'individu conserve un pouvoir significatif sur sa propre attitude et sa réponse aux circonstances. Le libre arbitre, dans le contexte stoïcien, réside dans la capacité à choisir comment réagir face aux événements inévitables.

À l'inverse, l'existentialisme, émergé au XXe siècle, célèbre la liberté radicale de l'individu. Pour des penseurs comme Jean-Paul Sartre, l'existence précède l'essence, ce qui signifie que l'individu est jeté dans le monde sans prédestination. L'existentialisme met l'accent sur la responsabilité individuelle dans la création de sa propre essence, soulignant ainsi un libre arbitre absolu.

- *Destin et liberté*

La comparaison entre le stoïcisme et l'existentialisme révèle une tension profonde entre le destin et la liberté. Alors que le stoïcisme concède une certaine détermination extérieure tout en préservant le libre arbitre interne, l'existentialisme embrasse la totale liberté individuelle, permettant à l'homme de forger son propre destin.

Dans la vie quotidienne, ces perspectives influent sur la façon dont les individus comprennent leurs actions et leurs choix. Les stoïciens peuvent trouver une sorte de liberté intérieure en acceptant les éléments inévitables de la vie, tandis que les existentialistes insistent sur la responsabilité individuelle dans chaque décision, soulignant ainsi l'importance de la création de sens.

- *Perception de la souffrance et sens de la vie*

La manière dont nous percevons la souffrance et donnons un sens à la vie est profondément ancrée dans nos perspectives philosophiques. Le stoïcisme et l'existentialisme, deux écoles de pensée distinctes, proposent des réponses divergentes à ces questions existentielles. Cette étude vise à examiner de manière comparative comment le stoïcisme et l'existentialisme influencent la perception de la souffrance et la recherche du sens de la vie, révélant ainsi les nuances de ces approches philosophiques contrastées.

Pour les stoïciens, la souffrance est inévitable et fait partie intégrante de l'ordre cosmique. Cependant, le stoïcisme propose une approche de l'acceptation calme face à la douleur, en mettant l'accent sur la distinction entre les événements externes (hors de notre contrôle) et notre réponse intérieure à ces événements. Le sens de la vie dans le stoïcisme réside dans la poursuite de la vertu et de la sagesse, indépendamment des circonstances extérieures.

À l'inverse, l'existentialisme aborde la souffrance en soulignant son impact sur l'individu. Des penseurs comme Albert Camus explorent la confrontation à l'absurdité et à l'injustice du monde, conduisant parfois à l'angoisse existentielle. L'existentialisme propose que le sens de la vie émerge

de la responsabilité individuelle de créer sa propre signification dans un monde apparemment dépourvu de sens intrinsèque.

La comparaison entre le stoïcisme et l'existentialisme révèle une divergence fondamentale dans la manière d'appréhender la souffrance. Alors que le stoïcisme préconise l'acceptation et la tranquillité intérieure, l'existentialisme encourage la confrontation à la souffrance pour créer un sens individuel.

Dans la vie quotidienne, ces perspectives influent sur la manière dont les individus traitent les défis et donnent un sens à leurs expériences. Les stoïciens peuvent rechercher la sérénité intérieure malgré les difficultés, tandis que les existentialistes peuvent voir la souffrance comme une opportunité de définir leur propre existence.

En conclusion, la manière dont le stoïcisme et l'existentialisme influencent la perception de la souffrance et le sens de la vie reflète leurs différences philosophiques fondamentales. Cette tension offre une compréhension profonde de la diversité des approches existentielles et de la complexité inhérente à la compréhension humaine de la souffrance et du sens de la vie. La coexistence de ces perspectives variées enrichit le débat philosophique sur la condition humaine.

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Қазіргі қазақ прозасындағы көркемдік ізденістер мен ағымдардың бастау көздері, даму арналары

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Аңдатпа. Мақалада қазіргі қазақ прозасындағы көркемдік ізденістер мен ағымдардың бастауы туралы сөз қозғалады. Әдебиеттің даму бағыттары, көркемдік таным арналары, ізденістері, ең алдымен, ағым мәселесімен тығыз ұштасады. Әр ұлттың әдебиетінде көркемдік ізденістер, бағыттар, ағымдар әр кезеңде әр түрлі жағдайда өзгеше қалыппен дамиды. Қайсыбір ағым, бағыттар басқа топыраққа тамыр жібермей жатады. Ол тарихи-әлеуметтік жағдай, әдеби-интеллектуалдық орта табиғатына байланысты. Қазақ әдебиетінде имажинизм, дадаизм, акмеизм, футуризм, барокко т.б. ағымдар дамыған жоқ. Көркем әдеби үдеріс өзге әдебиеттерді қайталау, соған еліктеу міндетін алға қоймаған.

Ал, қазіргі дәуірдегі көркемдік әдістердің қазақ әдебиетіндегі көріністері тұтас бағыт деңгейіне көтерілмеген, олар өзара ара-жігін де ашып дараланбағандықтан, бүгінгі күн бедерінде көркем-әдеби ағым ретінде өмір сүруде. Оның орнына қарай дәстүр, үрдіс, көрініс, стиль терминдері қолданылуы мүмкін.

Әлемдік немесе ұлттық әдебиеттің даму жолында болсын тарихи қалыптасқан ортақ көркемдік құбылыстар – ағым мен бағыт ұғымдарының зерттелу тарихына зер салсақ, бірізділікті аңғару қиын. Бірнеше суреткерлер шығармашылығына тән әлеуметтік-идеялық, танымдық-эстетикалық ұқсас сипаттардан туындайтын аталмыш әдеби-теориялық категориялардың табиғатын тану бүгінгі таңға дейін қайшылықты пікірлерден арыла алған жоқ. Ұлттық әдебиеттегі ағымдар мен әдістердің ауысулары сол ұлттың көркемдік дамуының аса айқын белестері және әдебиет заңдылықтарының жүзеге асуының нақты көрсеткіштері.

Мақаланың қорытынды бөлімінде отандық және шетелдік ғалымдардың еңбектеріне сүйене отырып, өзіндік пікірімізді ұсынамыз.

Кілт сөздер: әдебиет, қазар прозасы, қазіргі әдебиет, ағым, бағыт, көркемдік, стиль, мәдениет.

Адамзат қауымының жаңа белес – жаңа ғасырға аяқ басуы әлемдік рухани саладағы нендей бір құбылыстар мен өзгерістер жайлы нақтылы тұжырымдар жасауды қажет етіп отыр. Қазіргі кезең – ақпараттық-технологиялық даму жоғары кернеуіне жеткен, әлемдік интеграцияның аса күшейген, жаһандану құбылысының шапшаңдаған шағы. Бұл үдерістердің экономикаға игі ықпалдары болғанымен, ұлттық құндылықтар тұрасында бірнеше мәселелерді де алға тартып отырғаны шындық.

Қоғам мен әдебиеттегі өзгерістерге сай әдебиет теориясында да жаңаша бағыттағы ізденістер пайда болды. Бір ғана социалистік реализм әдісінің қалыбында, маркстік-лениндік әдіснама байлауында болып келген әдебиет пен оның ғылымы тәуелсіздік талабына орай жаңа арнаға бет бұрды. Күллі руханият әлемі еркіндік аясында дамыды. Бұл өз кезегінде әдебиет теориясының алдына ұлттық сөз өнерін, ондағы әдеби құбылыстарды, түрлі әдебиет

жанрлары мен әдеби шығармаларды, эстетика табиғатын жаңаша байыптап, таным таразысына салуды жүктеді.

Көркем шығарманы талдау мен әдеби процесс заңдылықтарын ашуда енді бұрынғы бағалаулар мен талдауларды уақыт талабына сай қайта сараптап, тәуелсіз сана тұрғысынан қарастыру міндеті тұрды. Егемендік алған алғашқы жылдары әдебиет теориясына қатысты зерттеулер аз болғанымен, уақыт өте бұл бағыттағы зерттеу еңбектері көптеп жарық көре бастады.

Солардың бірі – халықтың көркем ойлау үдерісі барысында пайда болатын әдеби бағыттар мен әдеби ағымдар табиғаты. Задында, әдеби ағымдар мен бағыттар, көркемдік әдіс пен жанр ұғымдары әдебиет теориясының маңызды мәселелері болып табылады. Аталған ұғымдардан айналып өту арқылы күллі көркемдік дамуды, ұлттық проза мен поэзияны, драматургияны, бүгінгі әдеби үдерістегі құбылыстарды танып, таразылау мүмкін емес екені және ақиқат. Осы тараптан кеткен кешілікті байқап, жаңа ғасырдың басында дабыл қаққан зерттеуші Е.Тілешовтың: «...әдебиеттану ғылымымыздың әдеби бағыт, ағым, көркемдік әдіс, стиль мәселесінде әлі де кенже қалып отырғанын айтуға тиіспіз. Осындай күрделі мәселелерді көрсете алған бірде-бір теориялық еңбектің жоқтығы, ал жоғарғы оқу орындарына арналған «Әдебиет теориясы» оқулықтарындағы мәліметтерге өте аз орын берілуі және олардың өзі негізінен дайын тұрған орыс әдебиетінің мысалымен түсіндірілуі мәселені шешпек түгілі, шешуге де ұмтылмайтынын жасыруға болмайды», - дегені біраз шындықтың бетін ашты [1, 28 б.].

Әдеби ағымдармен әдеби мектептердің бірімен-бірі пікір алмасып, дамуы - әдеби процестің заңдылығы болып саналады. Әдеби бағыт ағымдар мен мектептерге тән ортақ рухани мазмұндағы көркем ұстанымдардың негізгі шарттарын қамтиды. Көбіне аталған терминдер синоним ретінде де қолдануы мүмкін. Әдеби бағыт көбінесе көркемдік әдіс, стиль орнында қолданылады. Еуропалық әдебиет тарихындағы болған белгілі бағыттар: ренессанстық реализм бағыты, барокко, классицизм, ағартушылық реализм, сентиментализм, романтизм, сыншыл реализмы, модернизм, соцреализм постмодернизм. Натурализм, символизм, маньеризм, рококо, импрессионизм, экспрессионизм, экзистенциализм әдеби ағымдар болып саналады.

Аталған бағыттардың ұлттық әдебиеттерде орын алуы мойындалған тұжырым. Әр бағыттың өзіне тән стилі болады. Әр түрлі ұлттық әдебиеттерде әдеби бағыттардың бірдей алмасуы олардың нақты жүйе ретімен қалыптасқанын дәлелдейді. Әдебиеттің ұлттық арнасы шешуші рөл атқаратыны сөзсіз. «Бағыт» деген түсінік алғаш рет Белинский, Чернышевский, Добролюбов еңбектерінде қалыптасты. Әдеби бағытпен қатар әдеби ағым түсінігі синоним ретінде қолданылып келеді.

Әдебиеттегі ағым-бағыттың айырмашылығын анықтау белгілі бір кезең әдебиетінің мәнін ашуда аса маңызды. Көркем шығармада қолданылатын шығармашылық әдіс-тәсілдермен тығыз байланысып жатқан осы бір мәселеге қатысты ХХ ғасыр басындағы қазақ әдебиетінде қандай ағымдар мен бағыттардың болғанына, оны сол тұстағы және кейінгі әдеби ой-пікір қалай танып білгеніне назар аудармасқа болмайды. Себебі ол белгілі дәуірдегі ақын- жазушылардың ізденістерін, көркемдік биіктерге жетуге деген ұмтылысын айқындайтын нақты құбылыс болып табылады.

Академик З. Қабдолов «Сөз өнері» монографиясында әдеби ағымды әдеби стильмен салыстырып, түсінік береді: «Байқап қарасақ, стиль - бір жазушыға тән творчестволық ерекшелік болса, ағым – бірнеше жазушыға тән творчестволық бірлік; стиль – әр жазушының дара қасиеті болса, ағым- әр алуан жазушының ортақ сипаты; стиль жалқыға тән ұғым болса, ағым жалпыға тән таным; стиль әр жазушының әдеби беті болса, ағым әр жазушының әдеби бағыты» [2, 339-340 б.].

Ғалымның осы пікірінде ғылыми тұжырымдалған шындық бар. Бізге де керегі осы ұғым «әр жазушының әдеби бағыты». «Ағым», «бағыт» әдебиет теориясына қатысты еңбектерде түрліше құбылып, әрқилы ұғындырылып келеді. Ағымды бірде әдеби әдіске апарып тіресе, бірде бағыттың бір бөлшегі іспетті қарастырады. Енді бірде екеуі – «бағыт» пен «ағым» тектес ұғымдар ретінде танылады.

Бұл мәселеге кезінде біршама көңіл аударған ғалым Е.Ысмайыловтың негіздеуінше, көркемдік әдіс ағымға қарағанда жоғары дәрежедегі категория. Ол өзінің «Әдебиет теориясының мәселелері» деген 1940 жылы жарқ көрген еңбегінде былай деп жазады: «Белгілі бір дәуірлердегі ұлы жазушылардың негізгі дүниетану, творчестволық көркемдік принципті жазушылардың көпшілігі мақұлдап қолданатын болса, ол толық мағынасындағы көркем метод болып табылады. Егер белгілі жазушылар топтарының ұйымдасқан түрде ұсынған, творчестволарында қолданған көркемдік принциптері бір системада қалыптасып, жасалып кетпесе, жазушылар жұртшылығының көпшілігі қабылдамайтын болса, қоғамның негізгі слойларына жат көрініп тұрса, ондай көркемдік принцип метод болу дәрежесіне жете алмаған тек ағым ғана болып табылады» [3, 71 б.].

Ағым мен бағыттың, әдістің ара-жіктеріндегі толық ашылмай, бұл ұғымдарды бір-бірінің орнына қолдана берушілік ХХ ғасырдағы теориялық еңбектердің көпшілігіне тән. Мысалы, Қ.Жұмалиевтің 1964-жылғы «Әдебиет теориясы» атты оқу құралында әдеби бағыт пен көркемдік әдіс бір-бірінің синонимі ретінде қолданыла береді [3, 72 б.]. Ал З.Қабдолов «Сөз өнерінде» (соңғы басылымы 2002) бағыттар туралы мүлде сөз қозғамайды. Ғалым классицизмді де, сентиментализмді де, натурализмді де әдеби ағымдар деп қарастырады. Ал Р.Нұрғали, қазіргі таңда да толық қолдау таба қоймаған модернистік ағымдарды бір жақты қаралаудан арылтуға назар аудартады: «Қазіргі модернистер, декаденттер құр форма қуушылар емес, олардың дүниетанымы өзегінде философиялық концепция жатыр, ал әлем әдебиетіндегі жемісті бағыт-қоғамдық дамудың тәжірибесі тудырған адам табиғатындағы мың сан құбылыстар екендігіне жазушылар түгел ден қойған» деуі ағымдар табиғатын тереңдеп зерттеудегі көп ілгеріленгендікті аңдатты [4, 260 б.].

Олай болса, біз сол ағымдар табиғатының ұлттық әдебиетте пайда болуы, ондағы қолданылған көркемдік ізденістердің даму жолдарына тоқталсақ. ХХ ғасырдың алғашқы ширегі қазақ халқының қоғамдық және рухани-шығармашылық өміріндегі ең маңызды уақыт болды. Қазақ даласын түгелдей шарпыған көптеген өзгерістердің әсері рухани құндылықтарды қайта ексеуге әкеліп, санаға әкелген сапырылыстар төніп келе жатқан әлеуметтік дағдарыстар туралы ойларға ерік берді [4, 262 б.]. Қоғамды дамытудың бірнеше концепциялары қатарласа дүниеге келіп, ұлт зиялылары рухани қайта түлеудің жолдарын қарастыра бастады. Рухани үдерісте дәуірдің әлеуметтік дағдарыстары мен қоғамдық ой қарама-қайшылығы көрініс бермей қалған жоқ. Бұл шақта рухани серпілістер, мәдени өркендеу идеяларымен қоса уақыттың катастрофалығы, тұйыққа тірелу сарындары да қатар өмір сүрді. Мұндай пафостар сол кезеңде туған шығармалардың идеялық-көркемдік бағдарына өз ықпалын тигізбей қалған жоқ [4, 262 б.]. Әлемді, оның заңдылықтарын рационалистік принциптер арқылы тануға иррационализм, материалистік көзқарастарға идеалистік дүниетаным қарсы қойылды.

Ұлттық прозадағы әдеби ағымдардан бөлек романтизм мен реализмнің көркемдік әдіс ретіндегі типологиясына, көркемдік әдістің әдеби ағымдармен арақатынасы, жанр және көркемдік әдістің байланыстары сынды теориялық мәселелерді терең зерттеп, салмақты таразылайды. Ғалым «әлбетте, көркем шығармашылықтағы мазмұнды әдіспен теңестіруге, мазмұн дегенде тек әдісті елестетуге болмайтыны анық. Бұл жерде шығарманың қандай мазмұндық қасиеті әдіс қалыптайтыны немесе әдіс ретінде қабылданатынына назар аудару қажет. Олай етпейінше, біз белгілі бір әдісті құрайтын, әр түрлі бейнелеу принциптерін

ұстанатын әдеби ағым-бағытарды санамалап көрсете алмаймыз» деп пікір білдіре отырып, көркемдік әдіс ұғымы мен оның табиғатын танытатын белгілерді саралайды [5, 67 б.].

Осыдан келе әдебиетші әдісті басқа көркемдік құралдар жүйесіндегі басқа категориялардан бөлектеп тұратын басты-басты деген бес белгісін айқындап көрсетеді. Ал романтизм мен реализм көркемдік әдістері мен олардың ұлтық прозадағы орны мен қалыптасу тарихы, ішкі ағымдары жеке бөлек тарауларда қарастырылады. Зерттеуші Ж.Жарылғапов «ағым», «бағыт» ұғымдарының ара-жігін ашуға, осы уақытқа дейінгі қайшылықты пікірлерге нүкте қоюға тырысқанын айта кету керек. Ол: «Әдебиеттің даму жолында тарихи қалыптасқан ортақ көркемдік құбылыстар- ағым мен бағыт ұғымдарының зерттелу тарихына зер салсақ, бірізділікті аңғару қиын. Бірнеше суреткерлер шығармашылығына тән әлеуметтік-идеялық, танымдық-эстетикалық ұқсас сипаттардан туындайтын аталмыш әдеби-теориялық категориялардың табиғатын тану бүгінгі таңға дейін қайшылықты пікірлерден арыла алған жоқ. Тіпті әлі күнге дейін «әдеби бағыт», «әдеби ағым», «әдеби топ», «әдеби мектеп» түсініктерін бір-бірінің орнына қолданып келе жатқанының куәсіміз. Әлемдік әдеби үдерістегі ортақ құбылыстар табиғатын тарихи-салыстырмалы тұрғыда қарастыру барысында зерттеушілерді үнемі тығырыққа тіреп отырған терминологиялық мәселелердің ішінде аталған ұғымдар ерекше көзге шалынады [5, 3 б.]... Әсіресе «ағым» мен «бағыт» бір-бірінен толық ажыратылмаған күйінде, кей тұстарда бір-бірінің синонимі ретінде сипаттала береді. Сонымен бірге романтизм мен реализмнің бағыт ретіндегі мәні мен әдіс ретіндегі мағынасы да ала-құлалықтардан арыла алмай келеді. Осы кезеңге дейінгі әлемдік және ұлттық әдеби-теориялық білімдер жетістіктерін пайдалана отырып, аталған ұғымдардың өзіндік табиғатын анықтау, теориялық тұрғыдан нақты баға беру аса маңызды», - деп атап көрсетеді [5, 4 б.].

Ғалым өзіне дейінгі әлемдік әдебиеттанушылық ой- пікірлерді саралай келіп, мынадай тұжырымға келеді:

«Біріншіден, әдеби ағымдар әдебиеттің ертедегі сатыларынан бастап байқалатын, бағыттардан бұрын пайда болған сөз өнерінің ортақ сипаттары;

Екіншіден, әдеби бағытқа қаламгерлерді бағдарламалық-эстетикалық тұтастық топтастырса, әдеби ағымға дүниетанушылық қырлары, тарихи-әлеуметтік мәселелерге қарым-қатынасы, оны шешу жолдарындағы идеялық-көркемдік концепциясы ұқсас қаламгерлер жатқызылады;

Үшіншіден, бір бағытты құрайтын бірнеше ағымдар болады да, керісінше әдебиеттің нақты бір кезеңінде үстемдік етіп тұрған бағытқа жатпайтын, олардың шығармашылық бағдарламаларындағы ереже-талаптарды ұстанбайтын тәуелсіз ағымдар да бола береді;

Төртіншіден, әдебиеттің даму жолында көркемдік әдісті қалыптастыратын әдеби ағымдар бар. Яғни, көркемдік әдістер де бірнеше ағымдарды біріктіре алады [5, 38-39 бб.].

Мысалы, реализм түрлі белгілеріне қарай ағымдарға да, бағыттарға да бөлінеді» [5, 38-39 бб.]. Расында да әдеби бағытты белгілі бір бағдарлама аясында, әдеби манифесттер төңірегінде топтасқан қаламгерлер бірлігі, ал әдеби ағымды жоғарыда келтірілген идеялық-эстетикалық, дүниетанымдық қырлары сәйкес жазушылардың ерекшелігі деп қабылдасақ, бұл тараптағы шатасулар жалғаса бермек деген ойдамыз. Қазіргі қазақ прозасындағы жаңа бағыттарды қалыптастырып жүрген жазушымыздың бірі – Асқар Алтай. Шығармаларына талдау жасап көрейік.

Асқар Алтайдың «Түсік» әңгімесі шағын-шағын үш бөлімнен тұрады. Алғашқы бөлімі авторлық баяндаудан, яғни әңгімеге пролог іспетті. Пенде түсінде түсік көреді. Жатырдың ішінде түсікке айналған тамшы емес адамның хал-жайы, кейіпкердің өзі суреттеледі. Шығармадағы түстің символдық мәні де үлкен. Себебі, символды жан-жақты қазбалап көрсетудің қажеті шамалы. Ал, суреткердің әңгімесіндегі жатыр ішіндегі ұрық адамдарға

белгілі жайт. Мәтіндік астармен негізгі ойға, көркем шығарманың тұтастығына септігін тигізіп тұрған да осы – түс.

«Түлен түртті пендені...

Түсінде түсік көрді. Түсік – түсік емес, түсікке айналған мұның өзі. Бармақтай ғана жан иесі екен. Ештеңемен ісі жоқ. Жөнімен жүзіп жүр.

Жүзіп жүрген мекені- жатыр. Биттің қабығындай жұқа жатыр іші- жұмбақ әлем[6]. Жұқа жарғақ жарылып кетердей толқып-толқып қояды. Жұмсақ құрсақ баяғы балалық шағында шаңырақта үрлеулі тұрған қарындай шайқала толқығанда, көгілдір әлемде балықтай жүзген бұл бесіктей тербеледі. Бірақ тұншықпайды. Емін-еркін тыныстайды» [6,124 б.]. Ары қарай түсікке айналған адамның сана-сезіміндегі алғаш ойлаған ойлары рет-ретімен беріледі. Оқырманға тым түсініксіздеу болмау үшін бұл жағдайға персонаждың қалай тап болғандығын әңгіменің екінші бөлігінен көреміз. «Пендеге тән түлкі бұлаң тірлік кешкені рас. Түсікке айналмай тұрып жалғанды жалпағынан басты ғой, шіркін! Шіркіннің шылауына кім ілінбеді, шаңына кім ілесе алды?...

...Жігітшілік жолында жұмақ кешті. Қыз-қырқын ырғын еді. Ырғында ырып жүрді. ...Жұрт жел жағынан жүрмейтін, оң жағынан күңкілдейтін күйге жетті. Оның соңы – Биболдың Балкенжедей жас қызға «бүлдіргі» салғаны. «Бүлінгеннен бүлдіргі алма» дегендей, Балкенжеден бойына бітіп қалған шарана туралы естігенде Бибол «бүлдіргі» деп бұрқанған[68]. Бір «бүлдіргі» аз саған дегендей, Санабике (әйелі) құрсағы да құр қалмапты. Үш бала аздай тағы бір «топалаң» түсіпті. Енді бұл екі оттың ортасында қалды», - деген автор баяндауының өзін түспен астасып жатқанын келесі сөйлемдерде білдіртеді. «Өң мен түс астасып кетті. Ақыры бірін болмаса бірін түсіртіп тастауға бел байлайды. Түсікті көзі көрмесе де, керең болғыр құлағы естіп, көңілі нілдей бұзылған» [6, 125-126 бб.].

Автор осы тұста кейіпкерінің әйелі Санабикемен және ашынасы Балкенжемен болған диалогында олардың Биболға (әңгіменің қаһарманы) деген ойларын эксплицитті, ал өзінің кейіпкеріне деген ащы мысқылын (ирония) имплицитті түрде береді.

«- Сен баяғы сары қарын, салпы етек ауылдың қатыны деп тұрсың ғой... Оқымаған надан деп тұрсың ғой... Оқымасам - оқымадым. Ал қайтейін деп едің? Сен асырап отырмысың? Сен емес, мына мен асырап, мына мен адам қылып отыр емеспін бе?! О-о-о, сорлы, сорлы!... Табамын!... «Ұл-ұл» деген тіліңді тыямын! Ха-ха-ха! ...Білем сені, білем! Тағы салдақыларыңа кеттің ғой... Байлықтың буына, жезөкшелердің суғарғанына семіріп жүрсің. Келерсің... көзіңе көк шыбынды үймелетермін. Ағаларым аман болсын!» [6, 127 бб.].

Жылбысқаны алдыртып тастасан деген емеурініне әйелінің берген жауабынан Биболға деген көзқарасын байқаймыз.

Кейіпкердің түсікке айналмай тұрғанындағы тіршілікте істеген істерімен оқырманды таныстырған соң, түлен түрткен пенденің түсікке айналғанына қайта оралады.

«Түсік түнемелге ес жиды...»

Әңгімедегі бұл жағдай фантастика болғанымен, біз автордың қиялына сүйсінбеске шарамыз жоқ. Одан әрі, ес кірген түсік пенде Тәңіріге жалбарынады.

«- О, құдіреті күшті Тәңірім! Мендей түсік пендеге қуат бере гөр!? Тозақтай жанып, мұздай суынған құрсақ анама сабыр бере гөр!? Мен бір талайсыз бейбақпын... Екі бірдей сүйгенім бар еді. Сол екеуі құрсағының біріне өзім түсіппін. Мұндай да сұмдық болар ма, жаратқан ием?! Әлде өзіңнің құдіретіңмен, әлде сайтанның сұм ісімен осы күйге душар болыппын... О, құтқарушы, Тәңірім! Қайсысының ғана құрсағына тап болдым? Қайсысы мені сылып тастағалы тұр? Жаппар ием, жар бола гөр! Жар бола гөр, жазықсыз жан иесіне!» [6, 131 б.].

Екі түсіктің бірін түсіртуге бел байлаған кейіпкеріміз өзі түсінде «түсікке» айналып, жатырдан «арам без» деп сылып тастамауын Тәңіріге жалбарынып сұрауда. Бірақ қайсысының жатырына түскені, қайсысының алдыртуға бел байлағаны белгісіз. Ол

шығарманың соңында да беймәлім күйде қалады. Мүмкін түстегі көрген қиыншылығынан соң кейіпкеріміз алдыртпаңдар деп те айтуы мүмкін шығар, бұл әңгімені оқып біткеннен соңғы оқырманның еншісіндегі шешімдері. Ал, біз мұны постмодернистік әдебиеттің ерекшелігі демекпіз. Белгісіздік ең басты ситуация екенін және бәріне күдікпен қарау тағы бар екенін жоғарыда айтып өткен болатынбыз.

Автор осы әңгімесінде дүниедегі болып жатқан оқиғалардың (әке мен бала арасындағы тартысты) көрінісін түсік пенде жатыр ішіндегі өзі секілді екінші бір түсікті көргенінде өте сәтті береді: «Егізім», «Сыңарым» деп ұққан бұл әлгі түсікті түрткенде, ол тажал түсікке айналып, мұны алқымынан ала түседі. Жатырдағы тар дүние тыстағы дүниемен қоштасардай болып жатқанда автор түсікке айналған пендеге тағы бір ой салады. «Екі түсік те екі жатырда жатуы керек еді... Бір құрсақта қалай қатар пайда болды? Қос түсік қос жатырда жаратылмағаны несі екен? Бәрінен бұрын екеуі де қай құрсақта жүр екен: Санабике... Балкенже... құрсағы. ...тажал түсік қылдырық кеңірегінде тағы қысып қалды. Бар әлем келіп бір уыс бидайдай болып мұның бауырына тығылды. Шыбын жаны мұрнының ұшына келді» [6, 132-133 бб.]. Осы тұста екі ұрықтың (түсіктің) арасында тартыс басталады. Соңында ұрыққа (түсікке) айналған пенденің сірі жаны сірне әлемге сылынып шығады. Автор уақыт пен кеңістікті көркем шығармада түрлі құбылтып, ерекше әдеби техникамен ойнатқанын анық көреміз.

Сондай-ақ, қоғамдағы тастанды бала мәселесінің өршіп тұрғанында тілге тиек етеді. Автор ұрыққа (түсікке) айналған пенде арқылы көкейкесті проблемаларды да қозғайды.

«Тәңірім бірақ түсік емес, тастандыдан сақтасын! Әйтеуір, тастанды емес – түсік... Оған да тәуба! Айы-күні жетіп туған тастанды болса қайтер еді?! Таба емес – тоба! Ай астында айдай болып туар ма еді?! Күн астында күндей болып туар ма еді? Әлде, өліарада өлімші болып кетер ме еді?! Тірі-жетім тастанды болудан тәңірім қақсын! Тастанды – қанадан асқанды... Таба емес – тоба. Тастанды емес – түсік» [6, 131 бб.].

Автор әлі адамға (сәбиге) айналмаған ұрықтың өмірде тастанды болғысы келмейтінін ашық береді. Әке тәрбиесін көрмей өскен ұрпақ Оралханның «Қауіпті буданы» болса, ал тастанды ұрпақ одан өткен қауіпті болмақ. Бұл тек ұлт үшін ғана емес жалпы адамзат үшін қатерлі.

Әңгіме кейіпкердің өз дауысынан өзі шошып түлен түртіп оянғанын түсінуімен аяқталады. Шығарма соңында автор нақты шешім де шығармайды. Шешімді оқырманның еншісіне қалдырады. Ал, постмодернистер үшін жұмбақты шешу мүмкін емес. Бұл туралы постмодернизм ағымын зерттеуші әдебиетші ғалымдар өз еңбектерінде атап көрсеткен. Оны біз жоғарыда аталған туындыларды талдай отырып көз жеткіздік.

Қорыта айтсақ, көркемдік әдіс пен әдеби ағым теориясына қатысты көзқарастар, олардың әдеби үдерістегі орнына қатысты ғылыми пікірталастар әлі толастаған жоқ. Әдебиеттанудың ғылыми аппаратынан айрықша орын алып келген әдіс категориясы әлі де маңызын жоймаған күрделі құбылыс. Ұлттық әдебиеттану ғылымында да көркемдік әдіс пен әдеби ағымдарда тану ұмтылыстары болды. 1920 жылдары басылған цикл мақалалар осы ұғымдар жайында бірнеше көзқарасты ұстанған пікірлердің айтылуына, сонымен бірге әдебиеттану ғылымымыздың ғылыми-теориялық соны ізденістерге ұмтылуына себепші бола алды.

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Chemical Sciences

SYNTHESIS OF NEW COMPLEXES BASED ON BENZOIC ACID DERIVATIVES

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Key words: *3,5-dinitrobenzoic acid, supramolecular, pyrazine adduct, cadmium complex, molecular and crystal structure, coordination number, ligand, adduct, pyrazine, Infrared Spectrum, x-ray structural analysis, hydroxybenzoic acid.*

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Keywords: *3,5-dinitrobenzoic acid, supramolecule, pyrazine adducts, cadmium complex, crystal and molecular structure, coordination number, ligand, adduct, pyrazine, infrared spectrum, X-ray diffraction analysis, hydroxybenzoic acid.*

Entrance

The study of the synthesis and crystallochemistry of coordination compounds, especially supramolecular complexes, is the basis for researchers working in this field. as one of the fields of scientific research currently maintains its importance. Such supramolecules are widely used as laser materials, as catalysts in chemical technology, as well as in gas chromatography, as biologically active substances, as antimicrobial drugs in medicine [1]. *3,5-dinitrobenzoic acid* and complex compounds of hydroxy benzoic acid with Cerium (III) and Silver (I) cations were synthesized and molecular and crystal structures were studied [2,3]. Several compounds of the adduct-forming pyrazine molecule were obtained and their structures were studied [4,5]. The electronic structure of the applied ligands and the nature of transition elements used as complexing agents play a special role in the appearance of the above properties.

It is known that in the synthesis of complex polymers with a supramolecular spatial structure (3D dimension) based on organic ligands, the nature and number of donor atoms in them is considered one of the main indicators.

Considering that the complex combination of *3,5-dinitrobenzoic acid*, a nitro derivative of benzoic acid, with cadmium (II) cation, which is considered a heavy metal, and the structure of its pyrazine adduct will give interesting results from the point of view of crystallography

$(3,5-(NO_2)_2-C_6H_3COO)_2Cd \cdot C_4H_4N_2$ A new compound with the composition was synthesized and its molecular crystal structure was studied.

During the research, new complex compounds of cadmium (II) and zinc (II) cations with hydroxybenzoic acid, a hydroxy derivative of benzoic acid $(HO-C_6H_4COO)_2Zn \cdot C_4H_4N_2$, $(HO-C_6H_4COO)_2Cd \cdot C_4H_4N_2$ synthesized and studied its molecular and crystal structure.

Experimental part

A new complex compound 3,5-dinitrobenzoic acid was synthesized by the following method. 0.846 grams (0.01 mol) of the sodium 3,5-dinitrobenzoate salt was dissolved in 100 ml of distilled water at 50-60°C is heated and 0.035 mg of pyrazine is added. 0.005 mol on the boiling solution $CdSO_4 \cdot 7H_2O$ a solution of salt dissolved in hot distilled water is added and cooled in a dark place at room temperature. After a few days, prismatic-shaped, light cream-colored single crystals begin to precipitate. The precipitate is filtered off and dehydrated in a desiccators $CaCl_2$ it is dried until a constant weight is obtained.

Elemental analysis of the new complex compound was carried out on a Carbo-Erba brand CHNSO analyzer and its chemical formula was found.

Calculated %: C – 34, 67; N – 11.48; H – 5.67



Found %: C – 34.23; N – 11.65; H – 5.38

Single crystals of the adduct supramolecule were selected under a microscope by X. working at the University of Virginia in the United States of America facing By sending the LAB 11 to the automated diffractometer, the necessary information for the crystal structure was obtained and the molecular crystal structures were opened based on special programs [6,7,8,9].

The crystallographic parameters of the new compound are given in table 1.

Table 1.

Crystallographic parameters of the Cd (II) complex.

Molecule formula	$C_{18}H_{10}CdN_6O_{12}$	The number of molecules in the cage	Z=2
Molecular mass	614.72 k.v.	Density	$d=1,862 \text{ g/cm}^3$
Measuring temperature	100,2 K	Radiation	$M_0K_{\alpha}=0.71073 \text{ \AA}$
Sinkonia	Triclinic	Dimensions of the single crystal	$0,44 \times 0,22 \times 0,20 \text{ mm}^3$
Space group	P1	Thresholds of theta	$1.7^{\circ} - 28^{\circ}$
Crystal lattice parameters	$a=7,513 \text{ \AA}$ $b=12,609 \text{ \AA}$ $c=12,965 \text{ \AA}$	The price of planes	$h=-9, +9$ $k=-16, +16$ $l=-17, +17$
Angles	$\alpha=69.417^{\circ}$ $\beta=73.864^{\circ}$ $\gamma=77.989^{\circ}$	Number of collected reflexes	52760
		The number of independent reflexes	3514
The volume of the crystal lattice	$V=1096.32 \text{ \AA}^3$	The final R factor	0,080

The molecular and crystal structure of Cd (II) complex adduct is given in figure 1.

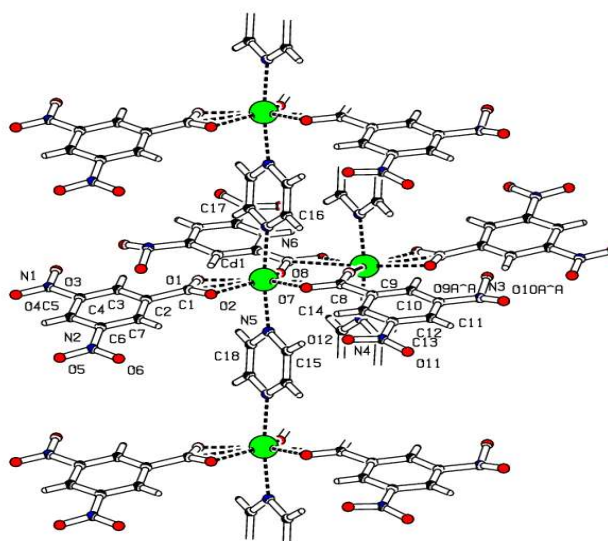
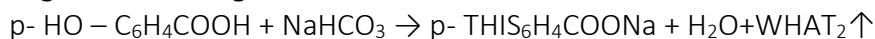


Figure 1. Molecular and crystal structure of bis-(3,5-dinitrobenzoato)-mono-(pyrazine) Cd (II) complex.

In order to synthesize pyrazine adducts based on para-hydroxybenzoates, the synthesis of metal para-hydroxybenzoates is first planned. For this, para-oxybenzoic acid is dissolved in water-ethyl alcohol solution and crystallized, and pure acid is obtained. Then the sodium salt of the acid is obtained through the following reaction.



The obtained solution is filtered through filter paper and stored in a dark place.

of the sodium salt of para-oxybenzoic acid and ZnSO₄ · 7H₂O, CdSO₄ · 7H₂O complexes of the corresponding metals are obtained by using a solution of O salts in water. From literature data [12] it is clear that aqua complexes contain 8 molecules of water of crystallization [11]. 180 in muffle furnaces⁰In C, the complex compounds are dehydrated and added to the water-pyrazine solution. After a few days, single crystals of pyrazine adducts begin to precipitate.

Then the crystals are filtered and anhydrous CaCl₂ in a desiccator₂ kept on.

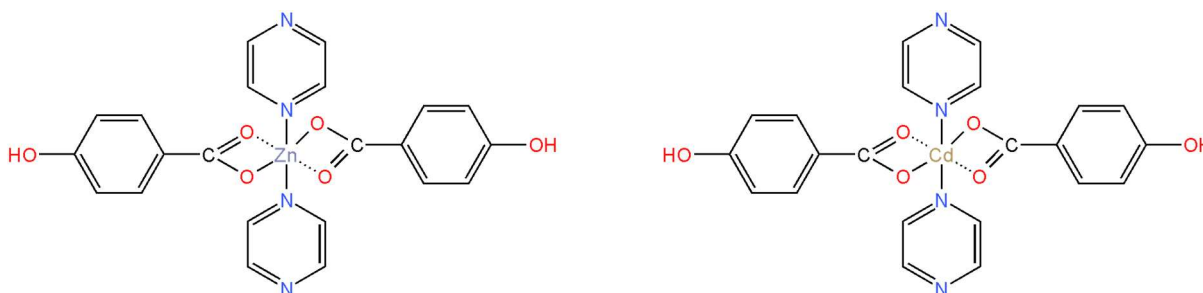
According to literature data [11] Zn(II), Cd(II) para-oxybenzoates have a similar structure.

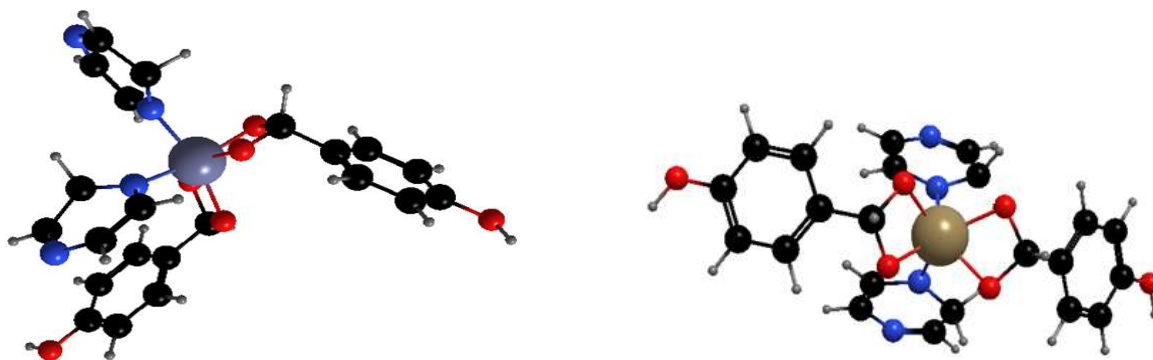
Elemental analysis of pyrazine adducts of para-oxybenzoic acid was carried out and the results are given in 2.

Table 2.

Results of elemental analysis of pyrazine adducts of metal para - hydroxybenzoates.

Chemical formula L= p-HO-C ₆ H ₄ COO ⁻	C		N	
	Calculated	Found	Calculated	Found
ZnL ₂ ·C ₄ H ₄ N ₂	31,50	31,65	6,68	6,72
CdL ₂ ·C ₄ H ₄ N ₂	28,30	28,45	6,01	6,13





Synthesized pyrazine adducts were also studied by IR spectrum method. Table 3 shows the results of that spectral analysis.

Table 3.

IR spectra of pyrazine adducts of metal oxybenzoates.

L	ZnL ₂ ·2P _{and}	CdL ₂ ·2P _{and}	relationships
3065 o.	3065 o.	3075 o.	(C-H)
2210 o.	2215 z.	2220 z.	(C-OH)
2170 o.	2175 o.	2170 o.	(C-C)
1670 o.	1605 g.	1615 g.	c _{as} (C-O)
1450 o.	1365 g.	1365 g.	c _s (C-O)
1230 o.	1225 g.	1230 g.	Phenyl-C
-	640 o.	650 o.	Me-O
-	565 o.	575 o.	Me-N

L=p-HO-C₆H₄COOH; P_{and}=C₄H₄N₂; o-ortho; z-weak; g-strong.

As a result of the conducted analysis, it was determined that the open structure of new adducts is as follows.

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Pharmaceutical Sciences

PHARMACEUTICAL CARE IN VITAMIN D PROVISION IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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RELEVANCE After the pandemic, both in Georgia and around the world, the human immune system is affected. Modern studies have established that the risk of developing type 2 diabetes increases with vitamin D deficiency. According to one study, obese patients without diabetes had relatively higher levels of vitamin D than diabetic patients.

Today, the role of vitamin D in the prevention of the development of diabetes is highlighted due to its immunomodulatory action. As we learned from the literature data, the risk of developing diabetes increases when there is a lack of vitamin C in the body.

Obese patients who do not have diabetes have relatively high levels of vitamin D, which once again confirms the need for vitamin D supplementation. Vitamin D belongs to fat-soluble sequosteroids. Its two forms are most important for humans: vitamin D3 - cholecalciferol, which is produced in the skin by exposure to ultraviolet rays of the sun, and vitamin D2 - ergocalciferol, which enters the body with the help of various types of food.

Vitamin D regulates the function of more than 200 genes. It affects:

- on the immune system (body's defense mechanisms)
- On the absorption of calcium, magnesium, zinc, phosphate and iron from the intestine
- On the proper functioning of the bone-joint system
- on the normal functioning of the nervous system

Accordingly, in the development of diabetes. At the initial stage of diabetes, patients must receive microelements and amino acids. And for the correct and rational appointment of the

latter, it is necessary to study the peculiarities of the protein and mineral metabolism of each patient.

An important role is played by vitamin D in the regulation of phosphorus-calcium and, therefore, in the metabolism in bone tissue, although many people do not know that vitamin D and calcium have a significant effect on: autoimmune diseases, atherosclerosis, obesity, cardiovascular diseases, diabetes mellitus, etc. on conditions such as insulin resistance (resistance) oncological pathologies.

OUR RESEARCH IS RELEVANT and tailored not only to the interests of our country, but also to global interests. Since pharmacists are the first link to whom the patient turns, the pharmacist is not only responsible for dispensing the medicine, but he is also responsible for the proper management of pharmaceutical care, which involves correctly assessing the patient's health problems, if the patient has any dangerous symptoms, in our case, diabetes, through a survey The complexity of his condition should be clarified, if necessary, he should be referred to an endocrinologist for consultation.

In case of diabetes, it is recommended to take supplements after consulting a doctor, because the acceptable norm of supplements containing vitamin D is individual, it changes depending on the body's needs. It is different in pregnant women, the elderly, people with various chronic diseases, the world epidemic and the post-covid period should also be taken into account. The acceptable dose is determined by the analysis conducted by the doctor and taking into account the anamnesis.

THE PURPOSE OF THE STUDY was to determine how important the pharmacist's involvement is in the management of such a complex disease as type 2 diabetes. In addition, we appreciated the importance of the role of the pharmacist in ensuring vitamin D supplementation. It is quite possible that the joint collaboration of endocrinologists and pharmacists can increase the effectiveness of the pharmacotherapeutic process in the lives of patients with type 2 diabetes, it is important for the patient to receive the correct information about medications in time, and the transition from pre-diabetes to diabetes can be reduced by 50% with diet and regular physical activity. One of the tasks of the research is to describe and find out how informed the pharmacists of different networks of Georgia are in promoting a healthy lifestyle: proper nutrition, weight loss and quantitative provision of vitamin D against the background of diet, because it is vitamin D that helps the body to regulate glucose levels through sensitive receptors. level in the blood.

IS THE SUBJECT OF RESEARCH

- Awareness of type 2 diabetes patients and their treatment strategy with or without vitamin D;
- Is it recommended to control the level of vitamin D by pharmacists in the case of patients suffering from type 2 diabetes;
- Are patients informed about the importance of vitamin D, do they control its level in the body;
- To what extent pharmacists and endocrinologists work as a team to ensure the health of patients.

REGARDING RESEARCH METHODS, the practical part of the research was conducted remotely, using e-mail and social networks, which included a questionnaire for pharmacists, endocrinologists, and patients with type 2 diabetes. The following participated in the research:

- Pharmacists, chief pharmacists and pharmacy managers of the leading pharmaceutical network of Georgia.
- endocrinologists from Tbilisi and other cities,
- Patients with type 2 diabetes living in Tbilisi.

As a result of the research, we can conclude that a lot of effort is needed to introduce the choice of a healthy lifestyle to the population of Georgia. This is not about who knows the importance of vitamin D and who doesn't, nor is it about whether all patients with type 2 diabetes

know how important it is to maintain the level of this "sunshine vitamin" in the wake of their disease. How important it is for the prevention of any disease. Based on the responses of endocrinologists, pharmacists and patients with type 2 diabetes, we can conclude that endocrinologists should prescribe vitamin D more often in patients with type 2 diabetes, although patients themselves should definitely control the level of vitamin D in their blood, the fact is that 25% of those who do not control and 75% of those who rarely test their vitamin D blood levels are too high.

- We are facing a big problem, because research has shown that although 55% of patients with type 2 diabetes are vitamin D deficient, still 75% of patients do not eat foods that help replenish vitamin D levels every day. Although (80%) are forced to take a fortified dose of vitamin D to make up for the deficiency, dietary support is undoubtedly important.

- As and since 80% of endocrinologists believe that it is entirely possible by providing vitamin D levels to lower fasting blood glucose levels in patients with type 2 diabetes, we think it is safe to conclude that all patients should know their vitamin D levels in the body. It must be checked several times a year.

- The research shows that hypoglycemic drugs are not incompatible with vitamin D, and the latter is necessary to avoid complications of the disease, we can conclude that

In case of laboratory-proven deficiency or lack of vitamin D, these drugs must be prescribed in combination.

- It is a fact, 51% of pharmacists state that they have not met vitamin D + hypoglycemic agent in the prescription. In addition, 21% believe that it is rarely prescribed by a doctor and 47% confirm that it is not even prescribed by insurance. Therefore, it turns out that pharmaceutical companies should work more diligently with doctors to introduce the importance of their medicines to a wider audience.

- When asked how important the pharmacist's role is, 14.3% evaluate it with a 5-point system. We think that this is a very high indicator of low self-esteem. A pharmacist cannot fail to realize his great importance in the management of any disease. It requires professionalism and should not work only in a good sales position. Moreover, the company itself should increase its self-esteem through continuous training, testing, professional development and show the importance of its role, because no medical staff can provide information about the medicine better than him.

- Research has clearly shown that the joint work of endocrinologists and pharmacists is the best way to improve the health status of all patients. We believe that we should serve the society with joint efforts if we want to achieve the maximum effectiveness of pharmacotherapeutic effectiveness.

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Technical Sciences

РАЗРАБОТКА ИНТЕЛЛЕКТУАЛЬНЫХ СИСТЕМ ОБНАРУЖЕНИЯ КИБЕРУГРОЗ С ИСПОЛЬЗОВАНИЕМ МАШИННОГО ОБУЧЕНИЯ

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Введение

Современный цифровой мир стал свидетелем взлета киберугроз, что требует постоянного совершенствования методов и средств для обеспечения кибербезопасности. В данной статье рассматривается разработка интеллектуальных систем обнаружения киберугроз с использованием методов машинного обучения. Анализируются существующие методы, предлагаются новые подходы, исследуются применение и эффективность различных моделей машинного обучения в контексте обнаружения кибератак.

В современном информационном обществе киберугрозы стали неотъемлемой частью цифрового пространства. Новые методы атак и уровень сложности киберпреступлений требуют эффективных средств обнаружения и предотвращения угроз для обеспечения кибербезопасности. В этом контексте разработка интеллектуальных систем обнаружения киберугроз, основанных на методах машинного обучения, становится ключевым направлением исследований.

Современная киберугроза стала глобальной проблемой, и ее борьба требует инновационных решений. Использование машинного обучения в системах обнаружения киберугроз предоставляет перспективные возможности для борьбы с разнообразными и постоянно изменяющимися угрозами.

Цель и задачи исследования

Целью данного исследования является разработка интеллектуальных систем, способных эффективно обнаруживать киберугрозы с применением методов машинного обучения. Для достижения данной цели предполагается решение следующих задач:

1. Изучение существующих методов обнаружения киберугроз и анализ их эффективности.
2. Сбор и анализ данных для обучения и тестирования интеллектуальных систем.
3. Разработка моделей машинного обучения для обнаружения киберугроз.
4. Экспериментальная оценка эффективности разработанных моделей.

Рассматриваются традиционные методы обнаружения киберугроз, такие как сигнатурные и аномалийные подходы, а также подробно исследуются современные тенденции в применении машинного обучения для обнаружения атак. Производится анализ их преимуществ и недостатков.

Обзор существующих методов:

В данном разделе проводится обзор существующих методов обнаружения киберугроз, включая сигнатурные методы, методы машинного обучения, искусственные нейронные сети и другие подходы. Анализируются их преимущества и недостатки, а также определяются актуальные проблемы в области кибербезопасности.

Сбор и анализ данных

Для успешного обучения моделей машинного обучения необходимо аккуратное сбор и анализ разнообразных данных о киберугрозах. Этот раздел описывает процесс сбора данных, их структурирование и предварительный анализ, включая выделение ключевых признаков.

Описывается важность правильного сбора и анализа данных для обучения моделей. Рассматриваются источники данных, их характеристики и методы предварительной обработки данных, необходимые для эффективного обучения моделей.

Разработка моделей машинного обучения

На этом этапе проводится детальное описание разработанных моделей машинного обучения для обнаружения киберугроз. Рассматриваются выбранные методы, их параметры, архитектура и принципы работы.

Представляются различные модели машинного обучения, такие как нейронные сети, деревья решений, и ансамбли, а также их применение для обнаружения киберугроз. Обсуждаются архитектуры, оптимизация и выбор признаков для повышения точности и надежности системы.

1. Выбор и анализ данных:

Первым шагом в разработке моделей машинного обучения для обнаружения киберугроз является сбор и анализ данных. Это включает в себя изучение различных источников данных, таких как журналы событий, сетевой трафик и дампы памяти. Осуществляется выделение ключевых признаков и определение подходящих метрик для оценки производительности моделей.

2. Предварительная обработка данных:

Полученные данные могут содержать шумы, пропуски или выбросы. Этап предварительной обработки включает в себя нормализацию, устранение выбросов,

заполнение пропущенных значений и преобразование данных в формат, пригодный для обучения моделей машинного обучения.

3. Выбор модели машинного обучения:

На основе характеристик данных выбирается подходящая модель машинного обучения. Например, для обнаружения аномалий может использоваться метод One-Class SVM, а для классификации - глубокие нейронные сети. Оцениваются преимущества и ограничения каждой модели в контексте задачи обнаружения киберугроз.

4. Обучение модели:

Выбранная модель обучается на подготовленных данных. Этот этап включает в себя настройку гиперпараметров, выбор функции потерь и оптимизатора. Важно разделить данные на обучающую и тестовую выборки для оценки производительности модели.

5. Оценка производительности:

После обучения модели производится оценка ее производительности с использованием тестовой выборки. Рассматриваются метрики, такие как точность, полнота, F1-мера и ROC-кривая. В случае необходимости можно внести коррективы в модель для улучшения ее эффективности.

6. Тюнинг модели:

В зависимости от результатов оценки производительности проводится тюнинг модели. Это может включать в себя изменение параметров модели, добавление новых признаков или выбор другой модели с учетом особенностей задачи.

7. Развитие и поддержка:

Разработка интеллектуальных систем обнаружения киберугроз — это динамичный процесс. Поддержка и развитие моделей включают в себя регулярное обновление данных, адаптацию к новым видам угроз и постоянное совершенствование методов обучения.

Экспериментальная оценка эффективности

После разработки моделей проводится их экспериментальная оценка с использованием тестовых данных. Анализируются результаты, сравниваются существующие методы и делаются выводы о эффективности предложенных моделей.

Проводится анализ результатов экспериментов, включающих тестирование разработанных моделей на разнообразных данных. Сравниваются полученные результаты с существующими методами обнаружения киберугроз для оценки превосходства предложенных моделей.

Заключение

В заключительной части доклада подводятся итоги проведенного исследования, формулируются выводы, предлагаются возможные направления для будущих исследований в области разработки интеллектуальных систем обнаружения киберугроз с использованием машинного обучения.

Сделанные выводы подводят итог исследования, выявляют его вклад в развитие области кибербезопасности. Подчеркивается необходимость дальнейших исследований и инноваций в области интеллектуальных систем обнаружения киберугроз с использованием машинного обучения.

Этап разработки моделей машинного обучения для обнаружения киберугроз — это сложный, но критически важный процесс. Непрерывное улучшение и адаптация моделей позволяют эффективно противостоять постоянно меняющимся угрозам в сфере кибербезопасности.

Historical Sciences

Unknown American Novel about Georgia

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Key Words: Georgia, USA, History, Travel

Abstract A novel “Noah’s Grandchildren” by Julier Chevalier – an American writer of the first part of XX century, has made an outstanding contribution not only in the field of literature, but in history as well. The novel, however, by far surpasses many well-known facts taken from the history of our country and focuses attention on the legends of historical value. Because the novel has never been translated, it has hardly ever been accessible to the people who have a deep interest in it. “Noah’s Grandchildren” has remained inaccessible, not only to the masses of readers but also to specialists’ attention.

In the novel, the action takes place at the beginning of XX century. The novel centers on the events depicting the major economic and political realities in the Democratic Republic of Georgia. To a certain extent, Georgia fights its way against Soviet Russia, which ends in the annexation of our country by Russian invaders. Furthermore, it leads to the emigration of government of Democratic Republic of Georgia etc.

The American writer narrates impressive episodes from the history of our country (Christianization of Georgians by St. Nino, origination of the Georgian alphabet, etc.). The description of the living conditions of Georgians and ethnographic traditions is given specific significance here. In addition to historical realities, the above-mentioned book by Julier Chevalier includes the city life in Georgia at that time.

A novel “Noah’s Grandchildren” by Julier Chevalier – an American writer of the first part of XX century, has made an outstanding contribution not only in the field of literature, but in history as well. The novel, however, by far surpasses many well-known facts taken from the history of our country and focuses attention on the legends of historical value. Because of not having had the novel translated hardly ever been accessible to the people who have deep interest in it, “Noah’s Grandchildren” has remained inaccessible not only to the masses of readers but its slipped specialists’ attention too.

In the novel, the action takes place at the beginning of XX century. The novel centers the events depicting the major economic-political reality in Democratic Republic of Georgia. To a certain extent Georgia fights its way against Soviet Russia, which ends in annexation of our country by Russian invaders. Furthermore, it leads to the emigration of government of Democratic Republic of Georgia etc.

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In the introduction of the novel, much is said about the way the book was written. One of the main characters’ i. e. – a traveler’s story in the novel, describes the story the author had while living in Georgia. Peculiarly according to the author’s outline, “The boy was born and lived on the great rolling plains of Texas. He had never seen a mountain; nor had he ever seen the sea. Because

of this, perhaps, there was one story of which he never tired"; it was a legend about Noah and his grandchildren.

"The boy became a man and the man traveled... After years of travel, it so happened that the man stood on the mountains of Ararat... Up the grassy hills... he saw a little house... As the traveler watched an aged man came from the house and approached his resting place.

The old man held in one hand a horn of wine which he offered to the traveler, saying at the same time with a low bow "Victory be with thee. Refresh thyself and long life to thee!" And then he added proudly, that "I'm of those who are called in this land Karthli, for we are the descendents of Karthlos, the son of Togarmah, who was the great-grandson of Noah" (Chevalier, 1929: 1-4).

"Best of all the land" and people "of the Karthli, which is called Georgia, the traveler", because of their hospitality and patriotism, "loved that part which is called Guria" and Gurians. In the American writer's estimation, besides "all the hardships of foreign invasion and cruel oppression they have never lost their deep love for their native land and their proud inheritance of liberty and wonderful tradition". As J. Chevalier said, he so quickly accustomed himself to the living conditions of Gurians that he stayed to live in Guria for some time and "the traveler became one with the Gurians" (Chevalier, 1929: 7-8).

However, we can conclude from the novel, that the writer traveled to other parts of Georgia as well. For example, to Samegrelo, Ajaria and Tbilisi.

Apart from the story of "The sons of Togarmah", the first chapter of the novel contains other turning points of history. For instance, during one of the conversations, "the priest told him (The traveler – O. N.) of St. Nina, who, fleeing from Tiradates, the cruel King of Armenia, came to them bringing the Word of Christ out of Capadocia in the third century after his crucifixion" (Chevalier, 1929: 6).

The novel pays a particular attention to the increasingly important role of the Christian religion in the history of our country. The writer's keen interest in the past events, his depiction of the various parts of our history makes the story very rich and show not only the author's deep knowledge of Georgia's history and culture but also his respect and admiration of them.

The novel is marked by the writer's idealized way of characterization of Noah Jhordania. The writer puts high demands on N. Jhordania's characterization, as he was considered to be the person who could bring independence back to our country in the 20s of XX century.

From my point of view, the novel is distinguished by the objective estimation of political reality. Particularly, turning Armenia and Azerbaijan into Soviet countries, didn't support sovereignty of Georgia. The novel gives objective reflection of the attitude of people towards the destabilization in the country.

Julier Chevalier gives a truthful description of the forceful emigration of N. Jhordania and the members of his government. To be ensured in the reality of the above-mentioned statement, I'll take one episode from the book as an example: "A car with the image of White Georgi reached the harbor. The rumor spread among the people "there is "Our Noah" sitting in the car", turned to be true. N. Jhordania, having heard the news about the current situation from the governor of Batumi announced sadly, that "it would be foolish to fight when we have no hope of winning. Enough of our brave Karthli have been killed as it is".

"No one answered the president. There was nothing to say. He had merely spoken aloud what they had all felt in their hearts for the last two days. Georgia had again fallen to foreign invaders" (Chevalier, 1929: 281-284).

After this, an atmosphere of tension fills the novel which is felt by every Georgian after the tragedy. The following episode supports the reality of the above-mentioned idea, where the main character - little Gogi meets the head of the country - N. Jhordania once again and has a talk with him:

“It is my little Gurian neighbor who sat with me in the castle gardens! See, said the president, who had not forgotten their talk, the wall was not made so strong by me after all. I have been a poor Surabo (The main character from “The Castle of Surami” by Daniel Chonkadze, is meant - O. N.). And in a few hours, perhaps, I shall be as dead as Surabo has been these hundreds of years. One must be young to be a hero like Surabo. I’m too old. You young people must become the Surabos who will bring strength to the tribes of the Karthli: you who are fighting.

I’m not fighting, Gogi managed to murmur. They say that I am too young to fight. That is what they told Surabo. He was younger even than I am... No man is too young to die for his country, that is what Surabo said, and I, too, say the same.

You are right, said he (Noe Jhordania – O. N.), as Surabo was right. You can serve your country equally as well... I am going to give into your keeping the honor of all the nation of the Karthli.

Here the president paused for a moment and pulled from beneath the cot a small leather bag... The president lifted from the velvet and held it in the light of the window. To the small end of the pear was affixed a round disk. The surface of the disk had been carved with letters and an image... The letters were the letters of the “soldier’s writing” of the Karthli and the image was that of White Georgi the patron saint of the Caucasus and all Georgia.

This, said the president solemnly, is the great seal of our country which is placed upon all our papers. If it should fall into evil hands, such as the hands of these invaders, it would cause great harm. Evil people might write wrongful things on paper, and when they sealed them with image of St. Georgi no one would be able to know that it had not been done by me or some other of our true Karthli.

He paused again... He reached into the leather bag again and pulled out a red bundle. When he had unfolded this bundle Gogi saw that it was the flag of the Karthli – a red flag with a square of black and white in the corner. The president wrapped the box in the flag (Where the National Emblem was - O. N.) and continued:

... The enemy may overtake us, or I may fall by the road, for I am a very old man. For this reason I am about to give our great seal of the Karthli into your hands. You are young and you wish to serve your country. Some day I may come for it. If I do not come and the time should arise you will know what is to be done. Your heart will tell you what is best for the tribes of Karthli and whom you may trust... Farewell, son of Guria” (Chevalier, 1929: 286-290).

The extract is marked by the deep allegorical style based on depicting the hardship in a historically truthful way and showing the great fondness of the American writer towards Georgia.

Patriotism in little Gogi, readiness for serving his country and idealization of national heroes (In this case Surabo, the main character of “The Castle of Surami”) don’t represent only the specific kinds of example, to my mind. Similar kind of enthusiasm always existed and still exists among the reasonable part of the Georgian population.

As for little Gogi, being rewarded with a State symbols by N. Jhordania, this fact has nothing to do with historical reality (It’s a well-known fact that Georgian symbols (flag, emblem) of those times are kept in a Georgian estate of Levil, Paris), but it bears allegoric significance. The fact of rewarding a young Georgian boy with these sacred things, I think is charged with restoring independence of Georgia, which ended in success decades later.

In addition to historical realities, the above-mentioned book by Julier Chevalier includes the city life in Georgia at that time. Situation in Tbilisi and Batumi is depicted in the book because of the stories related to the lives of the main characters of the work, brothers and sisters Keto and Gogi. To clarify what has been said, I will check specific examples from the novel.

Keto, who dreams of going to Batumi from the village, is described by his brother Gogi as follows:

"You are a lucky girl," said Gogi, as he handed her the last of the parcels. "You are going to see the sea and the iron road with its puffing engines. If you watch from the window as you come into Batum on the iron road you will see the big ships that come from Ferenzi and from Ameriki, Perhaps, if you are fortunate, you will even hear them blow on their whistles, or dropping their great iron hooks that hold them to the bottom of the sea when they stop at Batum. I saw all these things and more when I visited with the natlia on the feast of St. Mary" [Chevalier, 1929: 88].

The certified passage is important in that it gives us a certain idea of the relations that the Democratic Republic of Georgia had with foreign countries, including the United States of America.

The novel interestingly describes the impressions of Little Keto's trip to Batumi. In particular, he was most surprised by the "great round buildings" (that's how the author refers to the oil tankers seen by Keto). In this regard, the explanation that Keto's father Vaso gives to his son is also interesting:

"Those," said Vasso, "are the reservoirs that store the nafti which we burn in our oil lamps. It is brought to Batum all the way through our Caucasus Mountains by great iron pipes, and here it is pumped into the ocean ships that carry it to far places where it is not found...

It is found in many places in our land," said Vasso proudly. "Most of it comes from Baku on the Caspian Sea" [Chevalier, 1929: 94].

The quoted fragment once again points to the significant importance that Batumi had and still has for Georgia from a trade and economic point of view. According to the American writer, this city was not only the sea gate of our country but also one of the most powerful trade and economic centers.

As can be clearly seen from the novel, the current population of Batumi is quite multi-ethnic. In addition to Georgians, Russians, Greeks, Turks, Armenians, Kurds, and Persians lived there in considerable numbers. Chevalier gives us a certain idea not only about the labor activities of foreigners living in Batumi but also about their daily lives and customs. For example, according to the author,

"Greek women in woolen dresses with aprons belted about them; with their hair in two plaits down their backs, a knitted shawl knotted about their hips, and black kerchiefs about their heads. Turkish women were there, shrouded from head to feet in flowing, dark blue tchadars dotted with white.

The most noticeable of all were the Kurdish women in their embroidered wool dresses and silk vests and bright kerchiefs bound to their black heads by wire circlets with dozens of little tinkling gold coins. Some carried babies in big three-cornered scarfs slung at their backs, and each was belted with a broad leather band from which hung long streamers twisted from many-colored yarn, tipped with tassels that swung to and fro as the wearer padded from table to table seeking alms in the way of rejected pieces of fish.

Along the waterfront came a Persian merchant in heelless slippers, long black satin coat, and tall, brimless black hat. He was followed by a porter carrying the goods which he had, perhaps, bought for his shop somewhere back in the dizzy puzzle of narrow dark streets.

Occasionally a wagon clattered by loaded with crates from one of the ocean boats or piled high with bales of wool or licorice root for some faraway port. All the shops that faced the sea seemed to Keto to be coffeehouses. Groups of men sat at low tables drinking tiny thimble cups of black, sweet Turkish coffee or swallowing huge lumps of gummy ragat luhum, Turkish delight. Some played at dominoes or backgammon, slapping the hard palmwood disks down with sharp cracks on the pearl-inlaid boards... in this town (Batumi – O. N.) of many peoples and many languages Turkish is the language which everyone understands. It is the language of the bazaar [Chevalier, 1929: 105-107].

Although a significant part of Batumi's population really knew the Turkish language at that time, the information provided by the American writer is clearly exaggerated, and the Georgian language had a priority role.

In the novel, even more space is devoted to the description of Tbilisi and its presentation as the most important city in our country. For example, according to the information of an American writer, after dominating Georgia and the Caucasus, the Russian colonizers did not do anything to improve education but even prevented its development. In the schools here, they were principally forbidden to study in their native Georgian language.

As it was already said above, this and similar information provided by the author of the work is extremely interesting for understanding the real situation in Georgia during the period of Russian domination and for revealing once again the policy that the Russian authorities pursued to subjugate our country.

Gogi hoped that during his stay in Tbilisi he would have the opportunity to meet Noah Jordan, who is considered a national hero by the American writer. For more clarity, I will quote a relevant passage from the book:

"In a moment all his dreams of school had been shifted to Tiflis - Tiflis which the natlia and others who had traveled called the Paris of the East. Tiflis, where the iron road, driven by electricity, rattled up and down the very streets of the city! "Perhaps," thought Gogi happily, "I shall see Tchuenni Noah!" He meant Noah Jordani, the president of the Georgian Republic - that kindly old man who had delivered his countrymen from Russian tyranny and was known to them only as Tchuenni Noah - Our Noah" [Chevalier, 1929: 206].

I think the passage quoted above, which talks about the personality of Noah Jordan, realistically reflects the attitude that a large part of society had towards this political figure at that time.

The book interestingly describes the great impression that visiting Tbilisi made on Gogi. At first, it was very difficult for him to adjust from the quiet, monotonous life of the village to the radically different life of the big city.

According to the author's story, Tbilisi, like Batumi, was mostly an Asian-type city. The American writer pays special attention to describing and presenting the specific aspects of being in Tbilisi. For example, I will recall the information provided by the author regarding the old baths of Tbilisi.

According to the writer, one of the most important traditions characteristics of being in Tbilisi was going to the bathhouse. Even though one of the main characters of the work had a comfortable bathroom at home, he visited the city bath at least once a week, which was known as "Orbelian bath". The book often draws attention to the fact that the population of Tbilisi was multi-ethnic and religiously diverse. To clarify what I said, I will quote a relevant fragment from the book:

Coming out of the bath, Gogi heard the voice of the mullah from the mosque standing next to the bath. "He was calling the Moslems to noon prayers. "There is no God but Allah and Mohammed is his prophet," he cried in a weird singsong tenor. As he sang he held his hand to the sides of his mouth to carry the sounds afar to the most distant Moslems.

Below in the yard of the worshipping place all was bustle and noise. The worshippers who lived near by were congregated about a fountain of flowing water and were washing their feet and hands and mouth, for every good Moslem washes before he prays... Moslems pray so often that if they were to come from some distance to pray at the church they would have only time enough to reach home before the muezzin called them for the next prayer" [Chevalier, 1929: 257-258].

Going home in a phaeton with his godfather, Gogi's attention was drawn to one of the colorful faces of old Tbilisi - Kinto. To Gogi's question, "What is their tribe?", the answer was the following:

"They are not a tribe," replied the natlia, "They are called kintos. Their business is selling on the streets. Sometimes they steal, also. They come from all the nations of the Caucasus, but most of them are Georgians and Armenians..."

All a Kinto's wealth is in his silver belt," explained the natlia, "The profits in money from his trade in fish and fruit and greens he spends on wine, of which they are all too fond. Now and then when there is a little extra money the kinto buys a new silver bangle for his belt. When the weather grows so cool that it is no longer comfortable to walk about the streets and sell things the kinto does something bad - steals or fights; for this the police send him to the jail for a few months..."

They are so lazy that they had rather go to jail than work in winter. By the time spring comes, with the warm weather, their time in jail is finished and they come out into the sunshine again...

They never marry and never save any money or buy a house. When one of them dies the others who know him best sell his silver belt and with the money which they get for it they buy a coffin for the dead kinto and bury him. With any money that is left over they buy wine and hire musicians and dance and drink at the grave side as long as it lasts" [Chevalier, 1929: 262-263].

I think that many things are correct in this characterization of the life of the Kintos, although we also see clearly exaggerated estimates.

In the end, I would like to draw attention to one more episode of the work: on the way home, Gogi became interested in a small church; according to the author of the book, this church "was built to protect the cross that converted Georgians to Christianity". As it is clear from the author's comments, the church named after St. Nino is meant.

The writer also tells us that the cross in the mentioned church was stolen by the Russian soldiers who entered Tbilisi. People attached so much importance to this fact that they confidently said, "People used to say that the Karthli would never be free again until the Cross of St. Nina was returned to the place where it had hung for so many years" [Chevalier, 1929: 260].

In conclusion, besides the fact that the information provided by Julier Chevalier about historical realities and the urban life of Georgia is not always completely accurate and infallible, it should still be considered very interesting and reportable material for researchers interested in the mentioned issue.

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COLORECTAL CANCER: EPIDEMIOLOGY AND RESULTS OF SCREENING TECHNOLOGIES FOR EARLY DETECTION

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Annotation: This work reflects epidemiological indicators and examines the clinical and organizational aspects of early diagnosis of colorectal cancer, based on its secondary prevention using a population-based method of active detection of this pathology in clinically asymptomatic individuals - screening. A detailed algorithm, diagnostic capabilities and results of this preventive examination are presented. It has been shown that the use of a two-stage method, including a hemocult test and colonoscopy, allows for a differentiated approach to diagnosis, development of

management tactics and targeted treatment of these patients.

Key words: colorectal cancer, colon cancer, rectal cancer, epidemiology, morbidity, mortality, screening, hemocult test, fecal occult blood test - FOBT, total colonoscopy.

The key concept of screening for colorectal cancer (CRC) is the detection of oncological pathology in the early stages, when the prognosis is most favorable and allows you to get the best long-term results of treatment. A preventive examination always has advantages over a diagnostic examination when symptoms of the disease are already present. At the same time, it is possible to detect not only CRC in the early stages, but also benign neoplasms of the colon - polyps with their simultaneous removal. Along with this, it must be understood that the main conditions for screening for CRC are the availability of trained personnel and a standardized approach to identifying the trait under study and evaluating the results. The methods used should be fairly simple, reliable and reproducible, and also have sufficient sensitivity and high specificity [1,2].

Colon cancer with a specific gravity of 5.53% (2021 - 5.2%) in the structure of oncopathology of both sexes of the population has risen to 5th place, in men it remains in 6th place - 5.8% (5.5 %), for women - in the 5th - 5.3% (4.91%) The incidence rate of cancer of this localization in the country in the reporting year increased from 8.8 to 9.95 per 100 thousand population.

The incidence of colon cancer in 10 regions is higher than the national average - 9.95 per 100 thousand population: Kostanay - 20.7 (2021 - 15.9), Pavlodar - 18.8 (15.3), North Kazakhstan - 18, 0 (12.7), East Kazakhstan - 16.9 (13.4), Karaganda - 15.4 (15.0), Akmola - 14.6 (10.2), West Kazakhstan - 11.0 (10.1), Abay - 10.0 (9.0) regions and cities. Almaty – 12.8 (12.1) and Astana – 10.5 (9.0). As in 2021, colon cancer was detected much less frequently in Turkestan region - 3.1 per 100 thousand population (2.7), Kyzylorda region - 4.1 (4.6), Zhambyl region - 5.5 (5.8), Almaty - 6.3 (4.7), Zhetysu - 6.4, Mangistau - 6.8 (4.9) regions and Shymkent - 5.0 (4.0) [3].

Rectal cancer in the structure of malignant neoplasms of both sexes retains 7th place in rank with a specific gravity of 4.9% (2021 - 4.92%), but in men it dropped from 4th to 5th place - 6. 1%, for women – from 9th to 10th – 4.0%. The incidence rate per 100 thousand population increased from 8.4 to 8.8.

A high incidence rate was recorded in Kostanay - 17.8 per 100 thousand population (2021 - 16.2), East Kazakhstan - 17.7 (13.9), North Kazakhstan - 15.6 (15.1), Pavlodar – 14.9 (18.1), Karaganda – 13.3 (11.7), Abay – 12.9, West Kazakhstan – 12.9 (9.8), Akmola – 10.3 (13.1) regions and Astana city – 10.3 (9.0). Traditionally, a low incidence of rectal cancer is observed in Mangistau - 3.1 (2.8), Turkestan - 3.3 per 100 thousand population (2.7), Zhambyl - 3.7 (5.1), Kyzylorda - 4, 1 (5.3), Almaty – 5.3 (5.6) regions and in Shymkent – 5.5 (5.0) [3].

Rectal cancer in the structure of causes of death from malignant neoplasms of the population of both sexes in 2022 remained in 5th place with a share of 5.41% (2021 – 5.41%). In the republic as a whole, the mortality rate from this form of cancer was 3.6 per 100 thousand population (3.87).

The mortality rate per 100 thousand population was higher than the national average in East Kazakhstan - 7.8 (2021 - 8.6) - the maximum level, Pavlodar - 7.5 (7.6), Abay - 5.9, North Kazakhstan - 5.8 (4.3), Kostanay - 4.9 (4.9), West Kazakhstan - 4.8 (4.2), Karaganda - 3.8 (5.2) regions. Below the national average - 3.8 per 100 thousand population, mortality in Aktobe - 3.2 (4.1), Almaty - 2.6 (2.6), Atyrau - 2.5 (3.4), Zhetysu - 2, 6, Zhambyl - 3.3 (2.7), Turkestan - 2.1 (1.6), Mangistau - 1.9 (1.2), Kyzylorda regions - 1.8 (2.1) - the lowest figure , and years Almaty – 3.7 (4.3), Shymkent – 2.6 (2.1).

Colon cancer in the structure of causes of death from malignant neoplasms of the population of both sexes in 2022, as in 2021, ranks 6th, with a share of 5.2% (2021 – 5.0%). At the same time, the mortality rate in the country decreased by 5.6%, from 3.6 to 3.4 per 100 thousand

population.

Mortality rates in 10 regions are higher than the national average: East Kazakhstan - 7.1 per 100 thousand population (2021 - 5.1) - maximum level, Pavlodar - 5.6 (6.0), Kostanay - 5.3 (5.6), Akmola - 5.2 (3.8), Abai - 5.1, Karaganda - 5.1 (5.6), West Kazakhstan - 4.8 (4.4), North Kazakhstan - 4.8 (5.0) regions and cities. Astana - 3.6 (2.7), Almaty - 4.5 (5.3). Low mortality rates from colon cancer were noted in Kyzylorda - 1.2 per 100 thousand population (2.7) - the best result, Turkestan - 1.3 (1.7), Mangystau - 1.6 (2.6), Aktobe - 2.0 (2.5), Zhetysu - 2.4, Zhambyl - 2.5 (3.7), Atyrau - 2.5 (1.8), Almaty - 2.6 (1.8) regions and gg. Astana - (2.7), Shymkent - (2.4).

For colon cancer (94.0%) - 100% verification level was achieved in 3 regions (Abay, Almaty and Turkestan regions), high rates in the cities. Astana (98.5%), Shymkent (98.0%), Zhambyl (98.4%), Atyrau (98.2%) regions, low - in Akmola region (86.7%), Almaty (84.3%), in the Kyzylorda region (61.8%) - the worst result since 2017.

For rectal cancer (97.4%) - in 6 regions there is a 100% verification level, the worst level is still in the Kyzylorda region - 85.3%, lower than the republican average in the Akmola region - 92.6%, Aktobe region - 96.8%, Mangystau - 87.0%, Pavlodar - 95.3%, Almaty - 93.2% [3].

The frequency of diagnosis of stage I-II rectal cancer, as a visually accessible localization (68.9% - national average) in the regions, was: in Akmola - 34.6% - the worst result, as in 2021, in the country (2021 - 44.1%), Mangystau - 47.8%, Abay - 53.9%, West Kazakhstan - 59.1%, Almaty - 66.2%, Zhetysu - 68.6%, Karaganda - 65.7% regions and Shymkent - 62.9%.

For colon cancer (52.4%), early diagnosis rates are higher in Pavlodar (65.9% - best result), Abay, Aktobe, Atyrau, East Kazakhstan, Zhambyl, Zhetysu, Karaganda, Kostanay, Pavlodar, North Kazakhstan, Turkestan regions and Shymkent. The lowest figure (23.5%) is in the Kyzylorda region.

For colon cancer (17.3%), the rates of neglect at stage IV are higher - in Akmola - 31.0% - the worst result (2021 - 20.3%), Zhetysu - 27.3%, Abay - 23.1%, Turkestan - 22.2% (29.1%), Karaganda - 28.1% (28.6%), West Kazakhstan - 18.8% (8.2%), Mangystau - 17.6% (19.4%) regions and cities. Astana - 18.0% (22.9%), Shymkent - 20.0% (22.7%). The lowest level of neglect is 2.9% in the Kyzylorda region (7.9%).

The proportion of stage IV in rectal cancer (13.1%) is higher in Akmola region - 29.6% - the worst result (2021 - 19.4%), Abay region - 19.7%, Kyzylorda region - 17.6% (9.1%), Karaganda - 16.9% (28.4%), Almaty - 15.6% (17.0%), Kostanay - 14.8% (11.1%), Zhambyl - 13.3% (13.6%) regions and Shymkent - 14.5% (12.5%). The lowest level of neglect - 6.0% - is in the Atyrau region (12.5%).

Late diagnosis of rectal cancer as a visually accessible localization (stages III-IV) in 2022 amounted to 31.1% (in 2021 - 33.5%).

For rectal cancer, the level of neglect is higher than the national average - 31.1%, the indicators in Akmola - 65.4% (2021 - 55.9%) - the worst result in the country, Mangystau - 52.2% (38.1%), Abay - 46.1% (30.6%), West Kazakhstan - 40.9% (25.4%), Karaganda - 34.3% (46.5%), Almaty - 33.8% (35.7%), Zhetysu - 31.4% (34.1%) regions and Shymkent - 37.1% (42.9%). The lowest neglect is in the Atyrau region - 12.0% (17.5%).

In the country as a whole in 2022, the five-year survival rate of patients with colorectal cancer registered in 2018 decreased to 40.4% (2021 - 52.9% for those registered in 2017); there is a significant dispersion of indicators by region, from maximum - 56.1% (47.5%) in the Kyzylorda region, to minimum - 24.3% (51.5%) in the Aktobe region [3].

Screening of CRC screening is the systematic use of screening studies in an asymptomatic population. The purpose of screening is to identify people with abnormalities suggestive of CRC. These persons in the future need additional examination to clarify the diagnosis. Opportunistic screening is the non-systematic use of screening tests in routine medical practice. A screening program is much more challenging than an early detection program. At the same time, the success of the screening program is largely determined by the awareness of the population and medical

workers about the possibilities of early diagnosis of CRC. The feasibility of a screening program is determined by several factors that relate to the disease being screened, the screening test, the characteristics of the population, and the characteristics of the healthcare system.

The first factor is that the disease must be well understood, common enough in the target population to justify screening, have a recognizable early stage; treatment of the disease at an early stage should be more effective than at a later stage.

The second is that the test should be characterized by sufficient sensitivity, i.e. the ability to detect cancer among people with the disease; sufficient specificity - the probability that among people who do not have a disease, the test result will be negative; have a high positive predictive value (positive predictive value) or, in other words, the likelihood that people with a positive test result have the disease; have a high predictive value of a negative result (negative predictive value), i.e. the likelihood that people with a negative test result do not have the disease; security; low cost; and acceptability - the likelihood that people for whom this test is intended will agree to the examination (which to some extent depends on the awareness of the population about the possibilities and importance of early diagnosis).

The third factor is that the healthcare system should be ready for maximum screening test coverage of the target group, have the resources to confirm the diagnosis, appropriate treatment and follow-up of people with positive test results, and regularly conduct screening tests at regular intervals. At the same time, the benefits of screening must outweigh the potential physical and psychological harm and justify the financial costs of its implementation [4].

The factors most significant for the development of CRC are:

- the presence of chronic inflammatory bowel diseases, adenomatous polyps, cancer of other localization, etc.;
- family history (presence of one or two first-degree relatives with CRC or familial diffuse intestinal polyposis);
- the age of men and women over 50 years old, taking into account the fact that more than 90% of patients with colorectal cancer are people of this age (medium risk).

Age, regardless of gender, is an important risk factor for CRC. After the age of 50, the incidence of CRC increases from 8 to 160 per 100,000 population. Thus, people who have reached the age of 50, even in the absence of symptoms, constitute a moderate risk group for CRC.

The second category of increased risk of CRC (20%) is made up of persons with a genetic and family predisposition, suffering from chronic inflammatory bowel diseases, diffuse familial polyposis.

The high-risk CRC group is determined by the so-called Amsterdam criteria (the presence of malignant tumors in two generations, the presence of cancer in a first-line relative under the age of 50 years), in this case, CRC screening should be carried out after the age of 30 years [5].

The degree of individual risk of developing CRC is determined before screening to select the scope of studies and the frequency of their conduct.

The interval for oncological colorectal screening is 1 time in 2 years, target group: men and women aged 50-70 years, with the exception of persons registered at the dispensary for CRC and colon polyposis. At the same time, when forming the target group, one should take into account the absence of severe concomitant diseases, such as the presence of a common malignant neoplasm, cerebrovascular diseases in the stage of decompensation, chronic obstructive pulmonary disease with respiratory failure, cirrhosis of the liver, myocardial infarction with congestive heart failure, diabetes mellitus with vascular complications. and others, which are highly likely to lead to death in the next 10 years.

The first step in screening for CRC is the fecal occult blood test (FOBT). Traditionally, such methods include a benzidine test for occult blood in the feces. This is a biochemical method based on the assessment of pseudoperoxidase activity of hemoglobin. There is ample evidence that

invitation to guaiac FOBT screening (gFOBT) reduces CRC mortality by approximately 15% in age-matched average-risk populations.

To ensure the effectiveness of screening with gFOBT, the interval for screening under the national screening program should not exceed two years. To date, there is an immunochemical FOBT method - iFOBT, which is superior in efficiency to gFOBT in terms of the probability of detecting adenoma and cancer. iFOBT has improved analysis performance compared to gFOBT.

Immunochemical (immunochromatographic) examination of feces for occult blood - iFOBT or hemocult test is carried out for all men and women of the target group using an express method, which allows you to get a result within 3-5 minutes, without the participation of a medical worker. However, the evaluation of the test is carried out only by a medical worker in the PHC preventive department.

With a positive analysis of feces for occult blood, the second stage of colorectal screening is performed, which consists in endoscopic examination of the colon - total colonoscopy [6]. At the same time, in this case, this medical manipulation is of a therapeutic and diagnostic nature, since it allows one-stage removal of adenomatous polyps, which, according to various authors, occur in every third subject after 50 years of age. At the same time, women have 20% fewer polyps than men, but they have more right-sided lesions, which are more difficult to detect using fecal blood tests, because they are less traumatic [6,7].

Now, regarding the results of CRC screening. In 2022, 937,859 men and women of the target group aged 50 to 70 years were examined during colorectal screening (in 2021 - 920,640) [3].

Colorectal screening revealed 325 cases of colorectal cancer in the reporting year, which is 114 cases more than in the previous year (211 cases). The detection rate increased from 0.23 to 0.35 per 1000 patients examined. Low detection of colorectal cancer was noted in Zhambyl, Karaganda, Kostanay, Kyzylorda, Mangistau, Turkestan - the worst result, East Kazakhstan regions, Astana - from 0.07 to 0.30 per 1000 examined. The best result is in the North Kazakhstan region – 0.81 per 1000 examined. Compared to 2021, there was a decrease in the detection of colorectal cancer per 1000 people examined during screening in Karaganda (from 0.22 to 0.21), Kostanay (from 0.29 to 0.28), Mangistau (from 0.20 to 0.12) regions and Astana city (from 0.20 to 0.19).

Colon precancer (adenoma detection rate) was detected in 27.5% of patients who underwent colonoscopy (2021 – 22.8%). The detection rate of precancer in Akmola, Aktobe, Almaty (8.5% is the worst result), West Kazakhstan, Zhambyl, Kostanay, Kyzylorda, Mangistau, Pavlodar, North Kazakhstan, Turkestan regions and cities is lower than the national average. Astana and Shymkent. The best result is 36.2% in Almaty. It should be noted that the planned indicator for the detection of precancer of the colon and rectum in the country for 2022, according to the Comprehensive Plan, was 23.0% and was achieved.

In 2022, the proportion of patients identified during screening studies with early stages of malignant neoplasms (stages 0-I) was 26.2% during colorectal screening (in 2021 - 27.5%).

High early detection of colorectal cancer (above 30%) was noted in Akmola, West Kazakhstan, Karaganda, Kostanay, Kyzylorda, Turkestan regions and Astana city (57.1% - the best result). Not a single case of early cancer has been identified in the Mangistau region. Cases of cancer in stages III-IV detected during screening were registered in Akmola, Aktobe, Almaty, West Kazakhstan, Zhambyl, Karaganda, Kostanay, Mangistau regions and Almaty. A total of 21 cases of colorectal cancer in stage III and 3 in stage IV were identified (in 2021 - 18 and 5, respectively) [3].

The complex analysis carried out allows us to conclude that satisfactory results of colorectal screening can be achieved only with its proper organization, high quality of implementation, active participation in population screening, the use of highly sensitive tests and instrumental methods of preventive examination, accurate subsequent diagnosis of identified tumors and timely treatment. High-quality colorectal screening leads to early diagnosis of colon

tumors, both benign in the form of polyps and CRC in the early stages, which, in turn, increases the effectiveness of treatment and improves the prognosis of the disease. Target groups who, for one reason or another, do not participate in this screening should be informed that there are no other screening methods that can also effectively reduce mortality from CRC. Morbidity and mortality rates from colorectal cancer clearly show the epidemiological situation with this pathology in the regions of our Republic.

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RADICAL MASTECTOMY FOR BREAST CANCER AND POST-MASTECTOMY SYNDROME: CLINICAL ASPECTS

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Annotation: Radical mastectomy for breast cancer, being the most frequently performed operation, along with the use of combined and complex treatment, often leads to severe functional, somatic and psychological disorders in patients with this pathology. Postmastectomy syndrome is diverse in its manifestations, and timely and complete restorative treatment and preventive measures can improve the quality of life of patients, returning them to a full-fledged family, social life and work activity.

Key words: breast cancer, post-mastectomy syndrome, rehabilitation.

The leading treatment method for patients with breast cancer continues to be radical mastectomy, in which the mammary gland is removed with a large flap of skin with subcutaneous fat, lymph nodes and vessels of the axillary, subclavian and subscapularis areas, and sometimes the pectoralis minor and, possibly, the pectoralis major muscle. This surgical procedure, which involves extirpation of an organ, is a very traumatic surgical intervention. Since the lymph nodes are removed by crossing the lymphatic pathways, the neurovascular bundle is injured with disruption of innervation and tissue trophism with the formation of rough postoperative scars [1,2].

In addition to the surgical treatment method, radiation therapy is actively used, in which the mammary gland, postoperative scar, and areas of regional metastasis are irradiated. In addition

to the direct damaging effect on tumor cells, the stroma of surrounding normal tissues also reacts. The consequence of this impact is trophic skin disorders up to fibrosis and the development of gross scar changes in soft tissues in the axillary-subclavian region. In this case, as a result of direct radiation exposure and compression by scar tissue, the nerve trunks of the brachial plexus are damaged. As a result of radiation therapy, significant disturbances in blood and lymph circulation occur. These disorders are expressed in the development of endarteritis and vascular fibrosis, stenosis and occlusion of the axillary and subclavian veins, sclerosis of the walls of lymphatic vessels and obliteration of their lumen [3].

Surgical, combined and complex treatment of breast cancer leads to serious disorders of various body functions, which are interpreted as postmastectomy syndrome, including: postmastectomy defect, lymphostasis of the upper limb, brachial plexitis and neuropathies, limited range of motion in the shoulder joint, as well as severe psycho-emotional manifestations [4,5].

These patients experience a decrease in muscle strength, poor posture, atrophy of the muscles of the shoulder girdle, stiffness, restrictions in abduction and external rotation of the shoulder, pain in the shoulder joint and sunken subclavian region on the side of the operation. Often there is a so-called "pterygoid scapula" caused by neuromotor damage; it is also possible that synkinesis of the upper limb is impaired when walking.

The described symptom complex leads to disability in women, and therefore this problem is of particular medical and social significance. The problem of the quality of life of patients with breast cancer is primarily due to the psychological and social aspects of mastectomy. Therefore, the majority of patients treated for breast cancer need rehabilitation, the goal of which is to restore health and return the woman to a full social and family life.

The rehabilitation treatment program is developed separately for each patient, taking into account her general condition, age, stage of the process, profession and working conditions. Rehabilitation must be comprehensive, and the rehabilitation program requires the active participation of the district oncologist, surgeon, radiologist, chemotherapist, psychologist and physiotherapist.

Due to the fact that as the time interval after radical treatment of breast cancer increases, pathological changes in tissues increase, it is of particular importance to carry out rehabilitation measures as early as possible. The nature and severity of postmastectomy complications depend on the stage of breast cancer and the rehabilitation regimen. Early complications are observed during the first two weeks after surgery. Late ones develop months and sometimes years after surgery for breast cancer.

Early complications include: early edema, lymphorrhea, postoperative wound infection and marginal necrosis of skin flaps. Early swelling of the upper limb is a consequence of thrombophlebitis or technical errors in the operation and, as a rule, quickly disappears. Lymphorrhea is the most common postoperative complication. Prevention of purulent complications is based on compliance with the rules of asepsis, antiseptics, adequate drainage and prevention of lymphorrhea. Necrosis of skin flaps is associated with excessive thinning of the flap, as well as thrombosis of small vessels. Late postoperative complications in patients after treatment for breast cancer include swelling, erysipelas, contracture, paresis, paralysis of the upper limb, paresthesia, pain in the chest area, etc. [1,2,5].

Prevention and treatment of these complications in terms of rehabilitation are all the more relevant, since in some cases these complications lead to loss of ability to work and disability.

Lymphostasis (secondary lymphedema) of the upper limb is one of the most common complications of radical treatment of breast cancer. This is the result of pathological changes in the lymphatic system of the limb due to surgical and/or radiation exposure to the lymphatic system of the axillary-subclavian-subscapular region, surrounding tissues and vessels [5].

According to a number of authors, depending on the localization of edema on the limb and the percentage increase in the volume of the edematous limb in relation to the healthy one, 4 clinical degrees of lymphedema are distinguished: I degree - the edema is not permanent, the skin in the area of edema is easily folded, the volume of the edematous limb is up to 25 % of the volume of a healthy limb; II degree - swelling after rest decreases, but does not go away completely, the skin is difficult to fold, the volume of the swollen limb exceeds the volume of the healthy limb by 25-50%; III degree – the edema is dense, constant, fibrous-sclerotic changes in the skin and subcutaneous tissue are noted, the skin cannot be folded, hyperkeratosis develops, the volume of the edematous limb exceeds the volume of the healthy limb by 50-70%; IV degree – there is deformation of the limb, limited mobility, trophic disorders, the volume of the edematous limb exceeds more than 70% of the volume of the healthy limb.

In addition, the following options for the qualitative characteristics of edema are distinguished: Stage I (transient edema) - characterized by an unstable increase in the volume of the limb, skin mobility is completely preserved; Stage II (mild edema) - swelling of the limb remains completely, the skin is folded, but does not move in relation to the underlying tissues; when pressing on it, a clearly visible deep pit remains, there is a moderate thickening of the skin; Stage III (dense edema) - characterized by an increase in the volume of the limb, the soft tissues are tense and dense to the touch, the skin is not folded and does not move in relation to the underlying tissues, when pressing on the skin there is no visible hole left on it, there are often areas of skin hyperpigmentation ; Stage IV (deforming edema) - characterized by disfigurement of the limb due to excessive growth of soft tissues, movements in the joints of the limb are limited due to an increase in its mass, hyperkeratosis of the skin is often observed.

It is known that immediately after radical mastectomy, in most cases, lymphedema does not occur, but passes through a latent period of 1-2 weeks to several years. This is explained by the formation of intervascular anastomoses, a “lymphatic bridge” between the distal and proximal parts of the lymphatic tract. Subsequently, if it fails, dilatation of the lymphatic vessels occurs, a slowdown in the outflow of lymph, and a reverse flow of lymph into the distal sections.

Rehabilitation measures in this case are aimed at the treatment and prevention of postmastectomy lymphedema. In case of severe edema of the upper limb, a salt-free diet, diuretics to enhance lymph drainage from the area of edema, periodic elevation of the limb (every 2 hours for 20 minutes, the hand should be in an elevated position), light massage, elastic bandaging of the upper limb, physical therapy exercises should be recommended. , hydrokinesitherapy in a swimming pool, pneumocompression, electrical stimulation of the muscles of the shoulder girdle, magnetic therapy.

The consequence of combined and complex treatment of breast cancer may be local metabolic disorders that contribute to the development of lymphostasis. To correct them, the internal and external use of natural exogenous antioxidants (tocopherol, carotenoids, etc.) is recommended. Conservative treatment of combined edema, i.e. lymphatic edema accompanied by venous insufficiency requires the prescription of vascular drug therapy (disaggregants, anticoagulants, angioprotectors).

Of course, we cannot fail to note postmastectomy pain syndrome, which is a common complication of breast surgery and is considered chronic neuropathic pain on the side of the operation, lasting more than 3 months [6].

A special place in the postoperative rehabilitation of patients with breast cancer is given to the correction of post-mastectomy depression. After surgery, patients face the question of social survival. They experience a feeling of loss of femininity, inferiority and inferiority. The patient feels fear of possible social isolation and family breakdown. Women who have undergone a mastectomy tend to exaggerate the cosmetic consequences of the operation and focus on the change, in their opinion, in the attitude of others towards them [4,7].

Correction of a post-mastectomy defect (selection of specialized underwear, reconstructive plastic surgery), psychotherapy, specialized health treatment groups, and natural and climatic factors of sanatorium-resort treatment contribute to a reduction in the level of anxiety and depression [8,9].

Thus, the use of a comprehensive rehabilitation program for patients with breast cancer during the treatment process makes it possible to ensure a high quality of life at an early stage, level out cosmetic defects, eliminate psycho-emotional stress and minimize factors of disability, which, in turn, allows the woman to restore her vital condition as much as possible and reintegrate into public space.

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Agricultural Sciences

ETUDE DES HYBRIDES DE CONCOMBRE PROMETTEURS SOUS IRRIGATION GOUTTE A GOUTTE DANS LE SUD DE L'UKRAINE

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Fournir à la population du pays des produits de qualité qui répondent aux exigences d'un régime alimentaire équilibré et nutritif est une tâche essentielle de la production agricole. L'un des plus grands défis dans ce domaine est d'assurer un approvisionnement régulier en légumes et en fruits. La culture des légumes en tant qu'industrie joue un rôle très important dans la résolution de ce problème [1].

Parmi les cultures légumières, le concombre est l'une des plus répandues en Ukraine et à l'étranger. Il s'agit d'un légume largement consommé, aux qualités gustatives élevées, tant à l'état frais que transformé [2, 3]. Il s'agit traditionnellement d'une culture familière pratiquée à la fois par les exploitations industrielles et les ménages, principalement en pleine terre, mais aussi assez couramment en pleine terre.

La liste des variétés autorisées pour la culture en Ukraine comprend des variétés et des hybrides destinés à un usage universel, à la consommation de salades, au marinage et à la mise en conserve. Il existe une forte demande pour ces produits en Ukraine, et il est donc nécessaire d'augmenter considérablement la production de concombres biologiques destinés à la consommation fraîche et à la mise en conserve, car cela permet non seulement d'allonger la période de consommation fraîche, mais aussi de former des exportations vers les économies développées [2]. L'Ukraine bénéficie de conditions très favorables à la culture des concombres. Il s'agit notamment de sols fertiles, d'un climat favorable ou de l'irrigation, d'une expérience considérable dans la culture des légumes et d'un potentiel scientifique et de production pour le développement des technologies et de la sélection [4, 5].

Les approches organisationnelles et économiques de la culture maraîchère comprennent la production en pleine terre et en milieu fermé. En Ukraine, la production en plein champ est dominante, puisque 98,7 % de la superficie totale récoltée est constituée de légumes cultivés en plein air, ce qui entraîne une saisonnalité extrême, tandis que la part des légumes cultivés en circuit fermé, qui sont plus stables et plus uniformes, n'est que de 1,3 %. Toutefois, la part de la production de légumes en serre dans la structure globale de la production de légumes a presque doublé ces dernières années. L'intérêt pour le développement de la production intensive de légumes sous serre augmente chaque année et devient plus innovant et industriel. Cette évolution est conforme aux principes

paneuropéens, dont l'Ukraine doit tenir compte pour maintenir et élargir son segment sur le marché international des légumes [6, 7].

Mise en œuvre d'une approche scientifique et économique de la culture des légumes, y compris la spécialisation des zones de culture, l'introduction d'innovations dans la technologie de culture des concombres, en tenant compte des conditions pédoclimatiques spécifiques de l'exploitation, du délai de livraison, de la variété et des exigences du marché pour les types de produits. La culture de produits spéciaux en fonction des besoins et des préférences des consommateurs ou des entreprises de transformation [7, 8, 9].

L'introduction de nouvelles technologies intensives est basée sur la variété et son objectif. Les variétés et les hybrides destinés à la culture en plein champ doivent à la fois présenter un ensemble de caractéristiques économiques intéressantes, être résistants au stress, tolérer les changements de température diurnes et nocturnes, l'humidité extrême et ne pas être vulnérables aux maladies et aux ravageurs [8]. En plein champ, la menace d'un développement et d'une propagation rapides des maladies et des ravageurs est beaucoup plus grande. Leur nocivité est également plus élevée, c'est pourquoi les génotypes doivent présenter une résistance élevée aux facteurs biotiques [8-14].

Selon le groupe de maturité commercialisable, défini comme la durée de la période allant de la germination à la première récolte, les objets de la sélection sont divisés en ultra-précoces (jusqu'à 40 jours) ; précoces (41-45 jours) ; moyennement précoces (46-50 jours) ; moyennement mûrs (51-55 jours) ; moyennement tardifs (56-60 jours) ; tardivement mûrs (plus de 60 jours).

Contrairement à la période de maturation, le calibre revêt une grande importance technologique. En fonction de leur taille, les fruits sont divisés en trois groupes : les zelenets d'une longueur de 9,1-12,0 cm en pleine terre et de 9,1-30,0 cm en pleine terre ; les cornichons d'une longueur de 5,1-9,0 cm ; et les pickles d'une longueur de 3-5 cm.

La maturité technique des légumes verts varie également. Pour les variétés et les hybrides pollinisés par les abeilles, en fonction des conditions météorologiques et de l'intensité de la fructification de la plante, la maturité intervient au bout de 8 à 10 jours en plein champ, de 5 à 10 jours après la pollinisation en champ fermé et de 1 à 3 jours pour les pikulas. Il est donc nécessaire de procéder à l'échantillonnage en 1 à 3 jours.

Ces caractéristiques sont souvent cruciales pour la sélection d'un caractère ou d'un hybride et pour répondre aux besoins du marché.

L'objectif de notre recherche était d'étudier la productivité et de comparer deux hybrides prometteurs de concombre, Kibria F1 et Madeira F1, dans les conditions de la zone steppique méridionale de l'Ukraine, sous irrigation au goutte-à-goutte.

Les expériences ont été menées en 2020-2021 sur la base du champ expérimental du Centre d'éducation et de recherche de l'Université nationale agraire de Mykolaiv. Les sols de la ferme expérimentale sont représentés par un sol noir limoneux lourd, légèrement salin, à faible teneur en humus, situé dans le sud et reposant sur du loess. Le profil du sol du champ expérimental est représenté par la disposition suivante des horizons [15-20].

La capacité d'humidité la plus faible de la couche de sol 0-70 cm est de 22,0 %, la teneur en eau de flétrissement est de 9,7 % du poids du sol sec et la densité du sol est de 1,40 g/cm. La teneur en humus de la couche arable est de 2,9-3,2 %, le phosphore mobile est de 38 % et le potassium échangeable est de 332-525 mg/kg de sol. Le sol contient 0,20-0,25% d'azote brut et 0,12-0,14% de phosphore. Le complexe absorbant du sol est saturé principalement en calcium et en magnésium. La réaction de la solution du sol des horizons supérieurs est proche de la neutralité ou légèrement alcaline (pH=6,8-7,2), et augmente vers le bas du profil. Par ses caractéristiques, le sol du champ expérimental est typique de la terre noire de la zone steppique méridionale de l'Ukraine et convient à la plupart des principales cultures de plein champ. L'horizon humifère de 47-52 cm est gris foncé avec une teinte marron, caractérisé par la salinité et un rapport étroit entre Ca^{2+} et Mg^{2+} (2,5-2,8) [15-20].

Le plan d'expérience comprenait les variantes suivantes :

I. Hybride (facteur A)

1. Kibria F1 ;

2. Madeira F1.

II. Sélection (facteur B)

1. Cornichons de petite taille (SS) ;

2. Cornichons de grande taille (LS) ;

3. Essai sur les légumes verts (TR).

Les variantes expérimentales ont été placées systématiquement en quadruple exemplaire, et la surface de la parcelle était de 72 m² (6x12 m).

Les hybrides de concombre ont été cultivés selon les pratiques agricoles de Bayer pour les cultures légumières dans la steppe méridionale de l'Ukraine. Après la récolte du prédécesseur (blé d'hiver pour le grain), les chaumes ont été défrichés à une profondeur de 10-12 cm. Des engrais minéraux ont été appliqués à l'aide d'un semoir SZ-3.6 à un taux de N60P60K30. Le nitroammophoska a été utilisé pour l'application principale. Afin de détruire davantage les mauvaises herbes et de niveler le sol, un travail du sol continu a été effectué à une profondeur de 12 à 14 cm. Au printemps, lorsque le sol était physiquement mûr, un hersage a été effectué avec BZSS-1.0, et avant de planter les semis, 2 cultures ont été effectuées à une profondeur de 8-10 cm, avant la plantation, elles ont été compactées avec un rouleau.

Les concombres ont été plantés avec des semis à une température du sol de 12-13°C avec un espacement de 1,20 m, la distance entre les plantes dans une rangée a été formée sur la base de la norme de 26,5 cm afin de former 20,3 milliers de plantes/ha. La profondeur de plantation était de 10-12 cm. Après la plantation, le champ a été arrosé. Pendant la plantation, des engrais ont été appliqués à un taux de N20P20K20, et de la nitroammophoska a été utilisée.

Les mauvaises herbes dans les rangées de plantes ont été enlevées en même temps que la plantation. Après le désherbage, l'espacement des rangs a été cultivé à l'aide d'un cultivateur KRN-4.2. La profondeur de la première culture est de 3-4 cm et celle des suivantes de 6-8 cm.

Lors de la comptabilisation, tous les fruits (commercialisables, déformés, endommagés, envahis par la végétation) ont été ramassés et triés par la suite. Aucun fruit n'a été omis, car cela réduit la formation d'ovaires, les nutriments étant redistribués par la plante vers les gros fruits pour la formation des graines.

Après la plantation, les plants de concombre ont été fertilisés par fertigation. Nous avons appliqué du nitrate d'ammonium, du nitrate de calcium, de l'acide phosphorique, du sulfate de magnésium, du sulfate de calcium et du Vuxal. Les doses d'engrais pour la fertigation ont été réparties sur trois périodes de culture des concombres : 1ère - de la plantation, du semis à la croissance d'une masse végétative suffisante ; 2ème - du début de la floraison au début de la nouaison ; 3ème - la période de fructification massive, jusqu'à la fin de la récolte.

Les expériences ont été accompagnées d'une observation des plantes ainsi que des conditions météorologiques et du temps. Tous les relevés et observations ont été effectués en double sur deux répétitions non contiguës [21-22].

La densité de semis a été vérifiée deux fois au cours de la saison de croissance sur les mêmes sites, qui ont été fixés après la germination de la culture. Le premier comptage a été effectué 10 jours après la plantation (pour la survie des semis), et le second - avant la récolte. Le second comptage a été utilisé pour déterminer la sécurité des plantes pendant la période de végétation.

Pendant le cycle de végétation, la hauteur des plantes a été mesurée à l'aide d'une règle le long de la pousse principale jusqu'au sommet de la plante à partir de 10 plantes par variante. La croissance linéaire des plantes a été déterminée et calculée sur des sites fixes dans deux répétitions non contiguës.

La récolte a été effectuée selon la méthode de la récolte continue avec un intervalle de deux

jours. Les données de récolte ont été évaluées et traitées statistiquement à l'aide d'analyses de variance, de corrélation et de régression.

D'après les données obtenues, les fruits ont été échantillonnés systématiquement, avec un intervalle de 2 à 3 jours. Certains écarts ont été causés par des jours chômés et des précipitations qui n'ont pas permis l'échantillonnage et l'enregistrement. À cet égard, nous avons calculé les échantillons quotidiens moyens de concombres sur l'ensemble de la période et construit des modèles mathématiques de ce processus.

L'échantillon de concombres de petite taille (SS) a connu une tendance générale à la hausse et à la baisse. Les cornichons de grande taille (LS) ont eu tendance à diminuer progressivement le poids des fruits au cours des échantillons, et l'essai Zelenka (TR) a montré une diminution progressive plus prononcée au stade final de la fructification. Les informations relatives à ces tendances revêtent une importance pratique, car elles permettent de planifier les volumes de production de fruits en fonction des besoins des entreprises de transformation.

En prenant en compte les fruits récoltés de l'hybride F1 de Madère, le modèle polynomial a permis de faire correspondre le plus étroitement le cornichon de petite taille (SS) aux valeurs réelles, avec une valeur de fiabilité d'approximation de $R^2 = 0,7358$. Pour l'échantillon de cornichons de grande taille (LS), la fiabilité de l'approximation a atteint les valeurs les plus élevées lors de la construction d'un modèle polynomial et était au niveau de $R^2 = 0,6911$, et lors de la récolte de fruits verts, elle était de Trial (TR) $R^2 = 0,731$.

L'application des modèles développés pour les concombres des hybrides Kibria F1 et Madeira F1 permet de prédire avec un niveau de précision suffisamment élevé le changement dans la dynamique de croissance des fruits du cornichon de petit calibre (SS), du cornichon de grand calibre (LS) et du vert d'essai (TR). La précision de ces modèles varie de 59 à 74% pour la lignée F1 Madeira et de 65 à 89% pour l'hybride F1 Kibria.

Les modèles linéaires plus simples ont dans certains cas un niveau de précision assez élevé, ou au niveau d'autres types de modèles, mais cela ne reflète pas exactement la dynamique du processus de changement de productivité. Étant donné la plus grande stabilité de la croissance des fruits de l'hybride Kibria F1, comme le montrent les résultats de l'analyse statistique effectuée précédemment, les modèles de cette lignée se caractérisent par une plus grande précision par rapport à l'hybride Madeira F1.

Selon les résultats de la comptabilité, le rendement des hybrides soumis à l'étude a été déterminé, il était à un niveau élevé de 83,1 t/ha en moyenne dans l'expérience, et a varié de manière significative selon les variantes expérimentales.

Le rendement le plus élevé a été de 87,8 t/ha en moyenne pour l'hybride Madeira F1, soit 12 % de plus que l'hybride Kibria F1. Selon le type d'échantillonnage des fruits, le rendement blanc le plus élevé a été de 99,5 t/ha lors de la récolte des légumes verts Trial (TR), tandis que lors de la récolte des cornichons Large size (LS), le rendement a été inférieur de 17,9 % et celui des piquets Small size (SS) de 31,5 %.

Dans le cas de l'hybride Kibria F1, lorsque l'on passe du type de fruit Small size (SS) au type de fruit Large size (LS) pour les cornichons et les légumes verts Trial (TR), le rendement a augmenté de manière significative, passant de 63,4 à 77,3 et 94,4 t/ha. Pour la lignée F1 Madeira, les rendements ont augmenté de 73,0 à 86,0 et 104,5 t/ha, respectivement.

Nous avons procédé à des mesures biométriques des fruits, à la comptabilisation des rendements totaux et commercialisables et à l'évaluation de la qualité des produits. La récolte et l'enregistrement des concombres à cornichons et des cornichons et légumes verts ont été effectués en deux ou trois jours. Conformément aux exigences de la norme actuelle DSTU 3247-95 "Concombres frais. Spécifications", tous les fruits ont été divisés en parties standard et non standard.

Lors de la récolte des pickles de petit calibre (SS), 21 échantillons ont été prélevés sur l'hybride Kibria F1 et 22 sur l'hybride Madeira F1. Lors de la récolte des cornichons de gros calibre (LS), 21

échantillons ont été prélevés et les légumes verts d'essai (TR), respectivement, 20 et 21 échantillons. Le poids moyen des fruits entre les hybrides pour les groupes individuels de fruits par taille était à 1,11, 7,67 et 12,04 %, respectivement, pour les cornichons de petit calibre (SS), de grand calibre (LS) et les cornichons verts d'essai (TR). Selon les échantillons individuels, le poids moyen des courges de petit calibre (SS) variait de 9 à 30 g pour l'hybride Kibria F1 et de 8 à 31 g pour l'hybride Madeira F1. Pour les fruits de cornichons de gros calibre (LS), cette variation était de 40-54 et 34-55 g, et pour les cornichons d'essai (TR) de 66-93 et 58-80 g, respectivement. La variance entre les fruits des cornichons de petit calibre (SS), de grand calibre (LS) et les fruits verts de Trial (TR) était plus faible dans l'hybride Madeira F1.

La ligne de tendance et la valeur de la fiabilité de l'approximation pour les échantillons et les facteurs étudiés indiquent leur efficacité. Le poids moyen des fruits pour l'hybride F1 Madeira a été de 17,7, 41,7 et 63,1 g, et pour l'hybride F1 Kibria, respectivement de 17,9, 44,9 et 70,7 g, en fonction des phases d'échantillonnage.

Les échantillons de fruits pour l'analyse ont été prélevés à trois moments : le 25 juin, le 7 et le 22 juillet. La longueur des cornichons de petit calibre (SS) était comprise entre 3,61 et 4,38 cm, et leur diamètre était compris entre 1,28 et 1,51 cm. La longueur des fruits de cornichon de grande taille (LS) était de 8,54-9,01 cm et le diamètre de 3,14-3,28 cm. Pour l'essai Zelenka (TR), la longueur était de 9,63-10,21 cm et le diamètre de 2,9-3,8 cm. Cela indique une violation de la technologie d'échantillonnage des fruits et la nécessité d'un échantillonnage plus fréquent. L'indice de longueur ne diminue de manière significative que lors de l'échantillonnage dans la phase de l'essai vert (TR) - 1,72 - 1,86 contre 2,80-2,93 pour les cornichons de petit calibre (SS) et 2,64-2,80 pour les cornichons de gros calibre (LS).

Les dimensions linéaires sont également importantes. Selon la norme GOST 1726-2019, les concombres destinés à la mise en conserve doivent être frais, entiers, sains, non contaminés, sans dommages mécaniques, sans pédoncule, avec une forme et une couleur typiques de la variété botanique.

Pour que les concombres soient savoureux, bien présentés et croustillants lorsqu'ils sont marinés, il faut cultiver des hybrides et des variétés qui ont une chair douce et dense et une peau fine mais résistante. Les fruits de ces variétés ne forment pas de vides et restent croquants après la transformation. Ils conviennent bien à la mise en saumure des variétés de type cornichon.

Les fruits du petit calibre (SS) de l'hybride Madeira F1 mesuraient 3,61-3,95 cm de long et 4,15-4,38 cm de long pour l'hybride Kibria F1, ce qui indique un taux de croissance plus élevé chez ce dernier hybride. Leur diamètre était respectivement de 1,28-1,38 et 1,48-1,51 cm. En conséquence, l'indice de maturation a dépassé les limites prescrites et était de 2,82-2,93 et de 2,80-2,90. Ceci indique que les fruits de l'hybride Madeira F1 sont plus allongés. Cela suggère que les fruits s'épaississent pendant la maturation. De plus, le coefficient de l'hybride Madeira F1 est plus élevé que celui de l'hybride Kibria F1, ce qui signifie que les fruits sont plus allongés et ont une meilleure forme.

Les fruits de concombre ne doivent pas présenter de vide au milieu. Il n'y a pas eu de différences significatives entre les hybrides étudiés pour cet indicateur, bien qu'il y ait eu une différence entre les groupes de fruits. Dans les fruits des concombres de petit calibre (SS), aucun vide n'a été trouvé pendant toute la période de détermination. Dans les cornichons de gros calibre (LS), on a trouvé jusqu'à 10 % de ces fruits au fil du temps, tandis que dans les cornichons d'essai (TR), on en a trouvé 10 en deux déterminations. Un tel rapport entre les fruits des concombres du groupe des cornichons et des concombres verts peut être une caractéristique de la croissance des fruits.

Les hybrides étaient similaires en ce qui concerne les autres caractéristiques variétales. L'échantillonnage fréquent des fruits du groupe Small size (SS) a stimulé le plus la vigueur de croissance des plantes, et l'indice était donc supérieur de 2 points pour ces variantes. Cela peut également expliquer la meilleure santé des plantes et la formation accrue de beaux-fils, respectivement de 3-4 et 2 points.

La taille des feuilles était stable et indépendante de la fréquence d'échantillonnage. Cependant, la floraison a été plus intense dans l'échantillon de petite taille (SS) avec 7 points par rapport à l'échantillon de grande taille (LS) avec 4 points et à l'échantillon d'essai (TR) avec 5 points.

L'amélioration de la régénération des plantes pourrait également être due à une récolte plus précoce, et les avantages étaient respectivement de 3 et 2 points.

Une plus grande résistance au mildiou au niveau de 4 et 3 points a été observée dans les deux hybrides lors de la récolte de cornichons de petite taille (SS). Lors de la récolte des légumes verts Trial (TR), les dommages ont été les plus importants. En conséquence, l'état général des plantes dans l'échantillon de cornichons de petite taille (SS) était conditionnellement au même niveau - 8 points contre 5 points dans les variantes de cornichons de grande taille (LS) et dans les verts Trial (TR).

Il y a eu quelques différences dans les indicateurs de qualité des fruits. Les fruits du type de cornichons de petite taille (SS) présentaient des avantages pour tous les caractères, à l'exception de la "densité des fruits", pour laquelle ils étaient inférieurs aux légumes verts de l'essai (TR) dans les deux hybrides. Les cornichons de grand calibre (LS) et les cornichons de petit calibre (SS) ont obtenu le score le plus élevé pour le caractère "couleur du fruit", et l'hybride Kibria F1 a eu l'avantage.

Les fruits des haricots verts de l'essai (TR) des deux hybrides se sont distingués par les notes les plus élevées pour la densité des fruits, la forme de la paroi, la forme et la longueur.

Par conséquent, la note globale des fruits des cornichons de petit calibre (SS) et d'essai (TR) des première et deuxième lignes était légèrement plus élevée, 7 points contre 6 points pour les cornichons de grand calibre (LS). Cette caractéristique a été identifiée dans les deux hybrides.

La culture de légumes est l'un des secteurs les plus rentables du secteur agricole. Dans le même temps, la culture des concombres de type cornichon permet d'obtenir des bénéfices très élevés grâce à des technologies appropriées [23-27]. Nos calculs le confirment. Nous avons déterminé les indicateurs d'efficacité économique sur la base du calcul de la carte technologique. Les prix des semences et des produits des deux lignes ont été considérés comme identiques à ceux de l'été de l'année en cours. Le coût des concombres de petite taille (SS) a été fixé à 18 UAH/kg, celui des cornichons de grande taille (LS) à 11 UAH/kg et celui des légumes verts Trial (TR) à 8 UAH/kg.

La culture de concombres en irrigation goutte à goutte nécessite des coûts importants, de l'ordre de 417,81 à 601,2 milliers d'UAH/ha.

Le coût des concombres cultivés varie de 6,19-6,59 UAH/kg de concombres de petite taille (SS) à 5,99-6,24 UAH/kg de cornichons de grande taille (LS) et 5,75-6,08 UAH/kg de concombres verts d'essai (TR). La limite inférieure de la valeur du coût a été fixée pour l'hybride Madeira F1, tandis que la culture de l'hybride Kibria F1 était en moyenne 5,7 % plus chère, ce qui était principalement dû au rendement.

La culture de l'hybride Kibria F1 a conduit à la formation de produits d'une valeur totale de 1321,6 milliers de UAH/ha à 1585,0 milliers de UAH/ha avec une valeur maximale (1585,0 milliers de UAH/ha) dans la variante avec une sélection de pics de petite taille (SS), qui avaient un coût de culture inférieur, mais ils étaient inférieurs en raison de la réduction de l'utilisation d'engrais minéraux, et non du coût de la sélection. C'est le coût des engrais minéraux qui a été le facteur décisif de l'augmentation des coûts dans les variantes Large size (LS) et Trial (TR).

Le taux maximal de rentabilité de la culture de l'hybride Kibria F1 (279,4 %) a été formé par les concombres récoltés dans la phase de marinage. L'échantillonnage des cornichons ou des légumes verts a conduit à une forte diminution de la rentabilité à 188,5 et 130,3%, respectivement. Une relation inverse a été observée dans les variantes de l'expérience en termes de coût des produits cultivés, de sorte que pour l'échantillon de cornichons de petite taille (SS) l'indicateur était de 6,59 UAH/kg, les cornichons de grande taille (LS) - 6,24 UAH/kg et les légumes verts d'essai (TR) - 6,08 UAH/kg. Lors de la culture du concombre de l'hybride F1 de Madère, les indicateurs économiques suivants ont été relevés.

La culture de l'hybride Madeira F1 a permis la formation de produits d'une valeur totale de 1463,0 milliers de UAH/ha à 1825,0 milliers de UAH/ha avec la valeur maximale (1825,0 milliers de UAH/ha) dans la variante avec cueillette de petite taille (SS), qui avait un coût de culture plus faible, mais

ils étaient plus faibles en raison de la réduction des engrais minéraux, et non du coût de la cueillette. C'est le coût des engrais minéraux qui a été le facteur décisif de l'augmentation du coût des variantes Large size (LS) et Trial (TR), comme pour l'hybride précédent.

Le taux maximal de rentabilité de la culture de l'hybride Kibria F1 (304,0 %) a été formé par les cultures de concombre récoltées dans la phase de marinage. L'échantillonnage des cornichons ou des légumes verts a conduit à une forte diminution de la rentabilité à 200,4 et 143,3%, respectivement. La dépendance inverse a été observée dans les variantes de l'expérience en termes de coût des produits cultivés, de sorte que pour l'échantillon de cornichons de petite taille (SS), l'indicateur était de 6,19 UAH/kg, pour les cornichons de grande taille (LS) de 5,99 UAH/kg et pour les légumes verts d'essai (TR) de 5,75 UAH/kg. La culture de cornichons de petite taille (SS) dans l'expérience forme le coût de production (1705,0 mille UAH/ha), tandis que les cornichons Trial (TR) sont les moins chers (1392,3 mille UAH/ha). La différence entre ces groupes est de 312,7 milliers de UAH/ha, soit 22,4% en faveur des pickles. Le remplacement de l'hybride Kibria F1 par l'hybride Madeira F1 dans la technologie de culture a un léger effet sur les coûts, environ 6,4 %, mais le coût de production augmente de manière significative de 15,7 %.

Le bénéfice le plus faible a été réalisé dans la culture des fruits de l'essai (TR) - 747,65 et 861,8 milliers d'UAH/ha. Cependant, même dans cette variante, la rentabilité était élevée, 130,3 et 143,3 %, respectivement, pour le premier et le deuxième des hybrides étudiés.

Parmi les variantes de différents fruits, la culture de cornichons de petite taille (SS) et de grande taille (LS) est la plus rentable par rapport aux cornichons d'essai (TR). Dans cette série, le bénéfice a diminué de 1,16 (1,14-1,16) et de 1,22 (1,20-1,25) fois.

Le bénéfice le plus élevé de l'expérience de 442,7 milliers de UAH/ha a été fourni par la culture de l'hybride F1 Madeira sur le pic de petite taille (SS), où la rentabilité la plus élevée de 304% a été obtenue. La culture de l'hybride F1 Madeira dans l'expérience a formé un niveau de rentabilité moyen de 215,93%, qui était 16,57% plus élevé que celui de l'hybride F1 Kibria.

Sur la base de l'analyse économique de l'expérience, on peut affirmer que pour la culture du concombre dans le NSCC du MNAU, district de Mykolaiv, région de Mykolaiv, sous irrigation goutte à goutte, la meilleure option est d'utiliser l'hybride F1 Madeira avec un échantillon de petite taille (SS), ce qui permettra à l'exploitation d'obtenir un rendement en fruits de 73,0 t/ha, fournissant une valeur de production brute de 1825,0 mille UAH/ha, un bénéfice net conditionnel de 1373,3 mille UAH/ha et un niveau de rentabilité de 304,0 %.

Conclusions. Ainsi, les exploitations agricoles du sud de l'Ukraine, après avoir satisfait aux exigences et à l'enregistrement approprié, doivent semer l'hybride de concombre Madeira F1 pour obtenir des fruits de type gherkin. Lorsqu'il est utilisé pour produire des concombres de petite taille (SS), le rendement sera de 73,0 t/ha, ce qui fournira un bénéfice net conditionnel de 1373,3 milliers d'UAH/ha. Cette option permettra d'obtenir la valeur la plus élevée possible de la production brute (1825,0 milliers de UAH/ha) avec un niveau de rentabilité extrêmement élevé (304,0%).

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Determining the amount of irrigation water for the nursery farm of Zugdidi municipality

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Resume

The paper refers to the determination of the water requirements for the nurseries of Zugdidi village. Taking into account climatic factors, the necessity of irrigation for the nursery of the village of Zeda Esri and the water balance coefficient have been established. The schedule of 80% water supply of surface runoff has been determined and built, which is significantly different from the current one.

In order to determine the amount of water supplied per unit of time (hydromodule), we determined the irrigation norm for each section of the nursery farm (the amount of water supplied per one hectare area during one irrigation period) is determined per hectare area and the amount of water supplied per percentage of the area is constructed as an uncompleted graph, the water demand curve is constructed as a result of its completion. which is also different from the existing one.

Key words: water demand, surface runoff. Hydromodule, irrigation norm, water supply.

Introduction

Georgia is located between two seas, it is a country with a small land area, climatic and agro-climatic resources are of vital importance.

Located in the beautiful Samegrelo region of Georgia, the village of Zugdidi municipality, Zetetsrei, is distinguished by its diverse nature, mild climate and mountainous terrain. The territory of Zugdidi municipality is located in the central part of western Georgia (area - 682.1 sq.km.), at 42 30'00" north longitude and 41 51'00" east latitude. Its borders follow the Black Sea coast (Ganmukhuri, Anaklia), the administrative zone of Akhazia (Gali district) to the northwest, Tsaneljikhi municipality to the northeast, and the territory of Chkhorotsku municipality to the southeast.

Forestry activities of the upper forest are directly related to the soil and climatic conditions, where the study of the soil and climatic conditions on a scientific basis contributes to the efficient use of nursery farming.

Effective management of overstory forestry is impossible without an irrigation regime. When selecting the irrigation mode, it is necessary to take into account the hydro-physical indicators of the soil, irrigation methods - both resource-saving and traditional.

The increase of precipitation in the upper Esrek starts from spring, June, July. Relative air humidity is important for the normal photosynthesis of forestry crops, which is considered a secondary supporting factor for plants, after the main agroclimatic resources.

Approximately 70% of the water demand of the world's forestry farms comes from the share of irrigation, therefore, the study of agroclimatic and soil fertility of irrigated areas depends on determining the water demand.

The role of water in forestry remains an irreplaceable mineral until today. There is no doubt about the role of water in our well-being. The need and dependence on it is eternal.

Forestry crops are considered symbols of life. Interest in forestry has increased in recent years. A lot of nursery farms have been created. Endemic varieties present in forestry farms on the territory of Georgia are important.

Agroclimatic indicators of the village of Zugdidi municipality Zeda Esseri, the village of Zugdidi municipality Zeda Esseri (Rukhitskal) - a village in Georgia, Zugdidi municipality, Chkhorlia community (villages: Chkhorlia, Zeda Esseri, Tkaia) coordinates are 42°35'24"C.G.41°56' 19" to be located 200m above sea level. It is located in St. 11 km north of Zugdidi.

The weather is humid-subtropical. The maximum average temperature of the hottest heads is +26.0. The highest average temperature is +27.6°. The average temperature is 14.5. The average annual temperature is 72%. The number of sunny days is 210 days.

Temperature mode of superscript C0

Table 1

Months	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual	Average
⁰ C	4.9	5.4	8.9	12.2	17.4	23.1	24.6	27.6	19.2	11.6	10.7	8.9	165.5	14.5

The annual rainfall of the superscript is mm

Table 2

Months	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual	Average
mm	104	80	154	130	176	85	90	98	138	68	169	73	1365	113.75

Annual relative humidity is written at the top

Table 3

Months	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual	Average
%	73	72	86	77	84	92	92	92	94	90	76	76	1004	83.6

Various types of subtropical and continental plants adapt well to the climatic and soil conditions of the area. Both endemic and introduced crops.

The surface is rich in hydrographic network, the important rivers are: Enguri, Chkhou, Jumi, Kuchkhoboni, Sintsa, which ensures the abundance of water resources of Zugdidi municipality. Water supply was carried out by three systems: 1. wells; 2. with individual wells; 3. Existing rural water pipes without systems. The total area of agricultural fields in Zugdidi municipality is 27300 ha. Among them: arable land 13110 ha, perennial crops 7919 ha, pasture 6271 ha. Kiwi, olive fruit, blueberry plantations, 27 ha, have been planted in the nursery of Zafesery.



Fig. 1. Zugdidi municipality, village of Zhetesin Blue Blueberry Garden

Main part

Determining the need for irrigation of the nursery farm of Zedeseri village was carried out by Prof. G.T. By Selianinov's method, when the sum of temperatures of three summer months is taken as an indicator of water consumption, reduced by ten times, the ratio of the sum of precipitation to the sum of temperatures of the same period. According to the Selianinov method, the coefficient was determined depending on the water balance

$$K = \frac{\Sigma P}{\Sigma t : 10}$$

where ΣP - the sum of atmospheric precipitation for three summer months.

Σt - the sum of temperatures of three summer months.

As a result of the summary of climatic conditions, the need for irrigation of the overhead nursery is established.

$$K = \frac{\Sigma P}{\Sigma t : 10} = \frac{273}{692,76} = 0.4$$

In order to determine the 80% guarantee, the amount of annual runoff is sorted from the largest to the smallest /table 5, column 3 /groups are separated with the desired interval, in our case 10000 m³.km²./column 4/. The number of years whose annual runoff is placed in each group in our case was calculated (table 5) 140000-131000m³/km² group includes 2 years, 130000-121000m³/km² group includes 1 year, etc. The number of years is recorded in the last column with an incremental sum.

It is clear the amount of runoff with 80% assurance, i.e. surface runoff is the amount of water that will repeat itself 80 times in 100 years.

Table 5

N	Years	Runoff in thousands of m ³ km ²
1	1999	88
2	2000	82
3	2001	121
4	2002	105
5	2003	130
6	2004	37
7	2005	89
8	2006	86
9	2007	76
10	2008	69
11	2009	87
12	2010	109
13	2011	119
14	2012	132
15	2013	112
16	2014	75
17	2015	73
18	2016	39
19	2017	45
20	2018	43
21	2019	90
22	2020	82
23	2021	79
24	2022	92
25	2023	70

In order to determine the 80% guarantee, the amount of annual runoff is sorted from the largest to the smallest /table 5, column 3 /groups are separated with the desired interval, in our case 10000 m³.km²./column 4/. The number of years whose annual runoff is placed in each group in our case was calculated (table 5) 140000-131000m³/km² group includes 2 years, 130000-121000m³/km² group includes 1 year, etc. The number of years is recorded in the last column with an incremental sum.

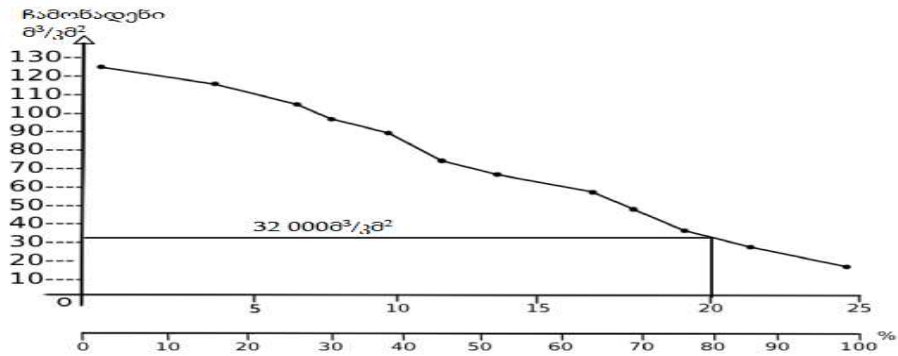
Based on the obtained data, the provision curve is calculated. In Fig. 1, years will be measured on the abscissa axis, and rainfall on the ordinate axis, observing the selected intervals.

Table 6

Numbering of years	year of observation №	Annual precipitation deposit $\bar{\theta}^3/\bar{\rho}^2$	runoff groups $\bar{\theta}^3/\bar{\rho}^2$	Number of years in the group, n	incremental sum, Σn
1	2	3	4	5 /4,3/	6/5+6/
1	14	130	130-121	3	2
2	5	129			
3	3	121			
4	13	119	120-111	2	5
5	15	112			
6	12	109	110-101	2	7
7	4	105			
8	24	92	100-91	1	8
9	21	90	90-81	7	15
10	7	89			
11	1	88			
12	11	87			
13	8	86			
14	2	82			
15	22	82			
16	23	79			
17	9	76			
18	16	75			
19	17	73			
20	25	70	70-61	2	21
21	10	69			
0	0	0	60-51	0	21
22	19	45	50-41	2	23
23	20	43			
24	18	39	40-31	2	25
25	6	37			

On the basis of the received data, a provision curve was built. In order to determine the amount of runoff with 80% assurance, we measure 80% on the abscissa axis, from where it rises to the

crossing of the control assurance curve, we draw a horizontal line to the ordinate axis, where



Scheme 1 80% runoff assurance curve.

We read that 80% coverage corresponds to an annual runoff of 32,000 m³/km².

Determining the area of each section for the nursery of Zugdidi village-The area of the blueberry nursery in the village of Zugdidi municipality is 27 ha, where nursery departments are located: 1. Sowing and cutting department 8.1 ha; 2. Sarguli section 10.8 ha; 3. Dedobi plantation 2.7 ha; 4. Landscaping (decorative) department 5.4 ha;

The area percentage of each section was determined by dependence

$$\alpha = \frac{\omega_1}{\omega} 100$$

where ω -the percentage of the area of each section- ω_1 -the area of each section in ha, ω -the total area of the nursery.

1. Sowing, transplanting section located on an area of 8.1 ha $\alpha = (8.1)/(27)100 = 30\% = 0.30\%$
2. Garden section on the area of 10.8 ha $\alpha = (10.8)/(27)100 = 40\% = 0.40\%$
3. Mother plantation on the area of 2.7 ha $\alpha = (2.7)/(27)100 = 10\% = 0.10\%$
4. Greening (decorative) section on the area of 5.4 ha $\alpha = (5.4)/(27)100 = 20\% = 0.20\%$

The rate of irrigation for each section was determined by dependence

$$m = 100H\alpha(r_{zr} - r_{zr 80\%}) m^3/ha$$

Where m - irrigation rate is m³/ha

H - is a different active layer for vegetable plants – 0.3–0.5 m; for field plants - 0.6-0.8 m; for perennial crops - 0.7-0.8 m; for nursery 0.6-0.8 m

α - Simple volumetric mass within 0,5-1,5

r_{zr} -Limit soil moisture/optimal soil moisture in the active layer, in %.

$r_{zr 80\%}$ -Minimum 80% soil moisture allowed for watering

Calculation irrigation norms for all sections, when it contains what contains the marginal capacity of moisture $r_{zg} = 32.5\%$, mass volumetric $a = 1.35 m^3/ha$

1. Sowing and cutting department:

$$m = 100H\alpha(r_{hg} - r_{hg 80\%}) = 100 \cdot 0.6 \cdot 1.33 / (30.33 - 24.2) = 79.8 - 6.13 = 489.174 = 500 m^3/ha$$

2. Garden department:

$$m = 100H\alpha(r_{hg} - r_{hg 80\%}) = 100 \cdot 0.7 \cdot 1.33 / (30.33 - 24.2) = 93.1 \cdot 6.13 = 570.7 = 600 m^3/ha$$

3. Mother plantation:

$$m = 100H\alpha(r_{level} - r_{level 80\%}) = 100 \cdot 0.8 \cdot 1.33 / (30.33 - 24.2) = 106.4 \cdot 6.13 = 652.32 = 650 m^3/ha$$

4. Greening (decorative) department:

$$m = 100H\alpha(r_{hg} - r_{hg 80\%}) = 100 \cdot 0.6 \cdot 1.33 / (30.33 - 24.2) = 79.8 - 6.13 = 489.174 = 500 m^3/ha$$

Calculation of the hydromodule of each section - according to the given irrigation periods,

calculate the hydromodule for each section 1. Sowing and cutting section - 1.6-15VII; 2.6-15 VIII;

2. Planting section - 1.21-31VII; 2.16-25VIII 3. Mother plant 1.21-31VII 2. 11-15 VIII 4; Planting

(decorative) department. 1. 11-20 VII; 2. 11-20 VIII

For all irrigation periods of each section of the nursery farm, let's calculate with the hydromodule dependence:

$$q = \frac{m \cdot 1000}{t \cdot 86400} \alpha \text{ l/s ha}$$

Where q- is the hydromodule l/s ha;

m-watering rate . m³/ha

T-number of days and nights in the irrigation period;

α-area of each section in %

86400 number of seconds per day;

1000 - conversion factor from m³/ha to liters.

1. calculate the hydromodule for the first period of irrigation of the sowing and cutting section.

$$q = \frac{m \cdot 1000}{t \cdot 86400} \alpha = \frac{500 \cdot 10000}{10 \cdot 86400} 0.30\% = 0,578 * 0,30 = 0,173 \text{ l/sha};$$

2. Garden department:

$$q = \frac{m \cdot 1000}{t \cdot 86400} \alpha = \frac{600 \cdot 1000}{10 \cdot 86400} 0.40\% = 0,631 \cdot 0,40 = 0,252 \text{ л/гд зз}$$

3. Mother plantation.

$$q = \frac{m \cdot 1000}{t \cdot 86400} \alpha = \frac{650 \cdot 1000}{5; 86400} 0.10\% = 1.504 * 0,10 = 0,150 \text{ л/гд зз}$$

4. Greening (decorative) department.

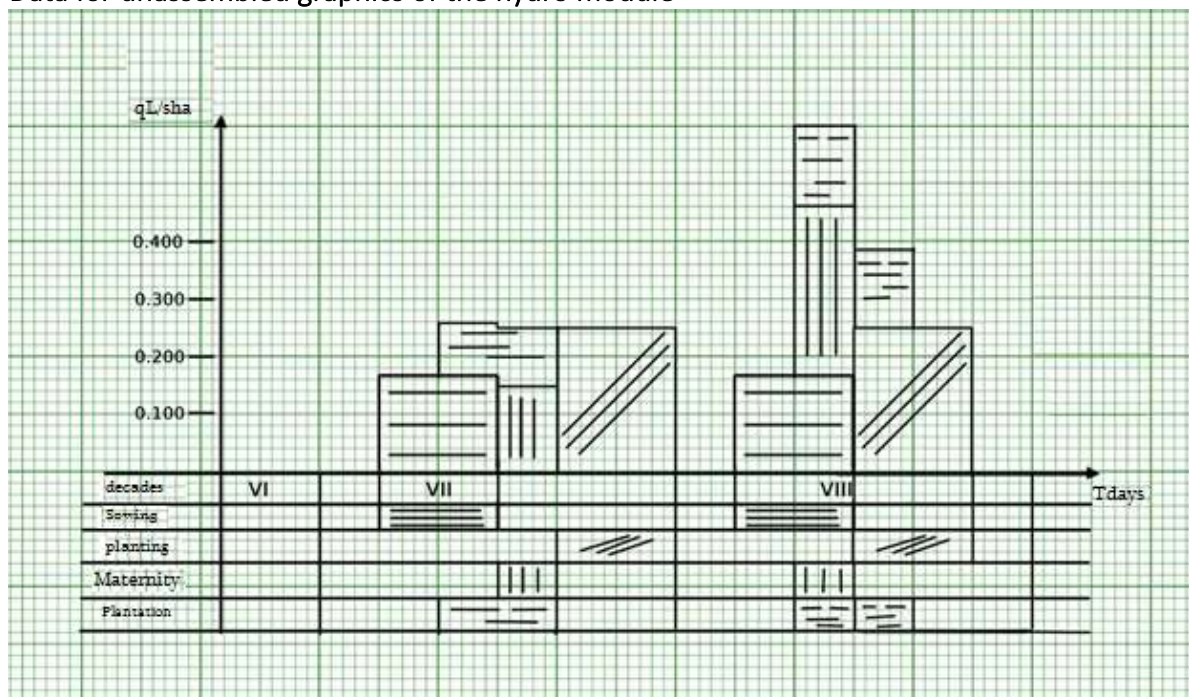
$$q = \frac{m \cdot 1000}{t \cdot 86400} \alpha = \frac{500 \cdot 1000}{10 \cdot 86400} 0.20\% = 0,578 * 0,20 = 0,115 \text{ л/гд зз}$$

Construction of unassembled schedule of hydromodule, evaluation and assembly.

We calculate hydromodules for all sections, all periods of irrigation and enter data into the table in the form of common data to build an uncompleted schedule of hydromodules.

№	departments	area		Watering N №	irrigation period		Irrigation timings Number of days	Irrigation rate m ³ /ha	Hydromodulus values	
		Ha	%		start	Ead			on 1 ha	on % of area
1	Sowing section	8.1	30	1	5	15	10	500	0.578	0.173
				2	VII	VII	10			
2	planting section	10.8	40	1	20	30	10	600	0.631	0.252
				2	VII	VII	10			
3	Maternity department	2.7	10	1	10	15	5	650	1.620	0.150
				2	VII	VII	5			
4	Plantation Department	5.4	20	1	10	20	10	500	0.637	0.115
				2	VII	VII	10			
	Everedge	27	100		10	20				
					VIII	VIII				

Data for unassembled graphics of the hydro module



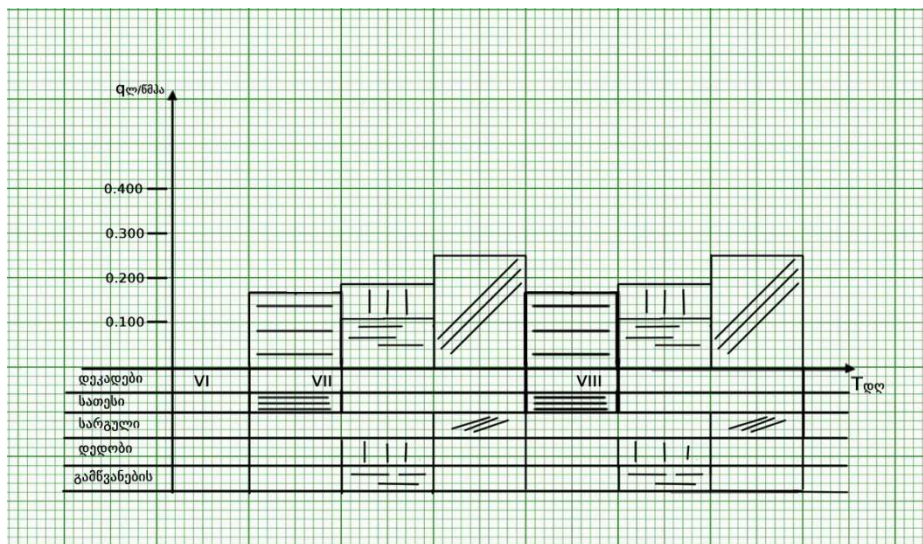
The constructed graph shows the amount of water per hectare per unit of time for the overhead nursery, clearly showing that the water demand during the irrigation period is negligible. Such a schedule is determined by the defined water recovery needs of the Saravi system, the calculation of the maximum costs, as a result of which the volume of treatment will increase significantly and the price will be significantly higher. In order to reduce construction costs, it is necessary to achieve a lowering of the ordinate of the hydromodule schedule, which requires correction and completion of the schedule itself. In this direction, it is directed to move the irrigation periods up or to the left by 5-6 days, and if this measure is not taken, then the extension of the times is delayed by 5-6 days. Accordingly, we compiled a schedule for making changes in the specified watering periods. Scheduling more plains and equals of the schedule, watering days of mother plantation, duration is 5 days, let's increase 1 day. About the same would be true of the included schedule savings

Hydromodule manning schedule **Table 8**

N	Department	area		watering N	irrigation period		Number of days	Irrigation rate	Hydromodule l/s/ha	
		ha	%		start	End			on 1 ha	on % of area
1	Sowing section	8.1	30	1	1 VII	10 VII	10	500	0,637	0.173
				2	1VIII	10 VIII	10		0,637	0.173
2	planting section	10.8	40	1	20	30 VII	10	600	0,631	0,252
				2	VII	30 VIII	10		0,631	0,252
3	Maternity department	2.7	10	1	10	20 VII	10	650	0,752	0.075
				2	VII	20 VIII	10		0,752	0.075
4	Plantation Department	5.4	20	1	10	20 VII	10	500	0,637	0.115
				2	VII	20 VIII	10		0,637	0.115
	Everedge	27	100							

During the irrigation period, it has been several days since we changed to calculate the hydromodules and enter the results and build a hydromodule completed schedule.

$$q = \frac{m \cdot 1000}{t \cdot 86400} \quad \alpha = \frac{650 \cdot 1000}{10 \cdot 86400} \cdot 0.10\% = 0,752 \cdot 0,10 = 0,075 \text{ l/s ha}$$



Completed schedule of hydromodule.

The difference between the ordinates in the completed graph of the constructed hydromodule is minimized and therefore the water demand is quite equalized.

After constructing the completed schedule, we calculate the amount of water needed for farming. The amount of water required for farming is calculated depending on the situation

$$Q_{neto} = q\omega$$

where q is the highest ordinate of the hydromodule graph in the reporting period in l/s; ω is the net area of the net farming lands, ha; Q is the water that can be used for the benefit of the net farming, excluding losses, which is always less than the amount of water that the farm should receive from the water intake allocated to it, which is calculated by dependence.

$$Q_{nruto} = \frac{Q_{Neto}}{\eta} \text{ l/secha}$$

where η is the coefficient of action of the domestic agricultural irrigation network, let's say in our case η = 0.7

According to the compiled schedule, Qnet==0.210 27=5.67 l/s in period 5-15/VII, and Qnet==0.208 27= 0.05 l/s in 11-20/VIII, the nursery should receive water from the intake in the first period, i.e. 1-10/ VII Qgross= =(5.67)/(0,7)=8.1 l/s in the second period 11-20/VIII Qgross= =(0,05)/(0,7)=7.4 l/s, in the same way we calculate Qneto and Qgross values for the rest of the period and the results will be included in the table

Let's put the water demand of the nursery on the compiled graph of the hydro module and build the water demand curve.

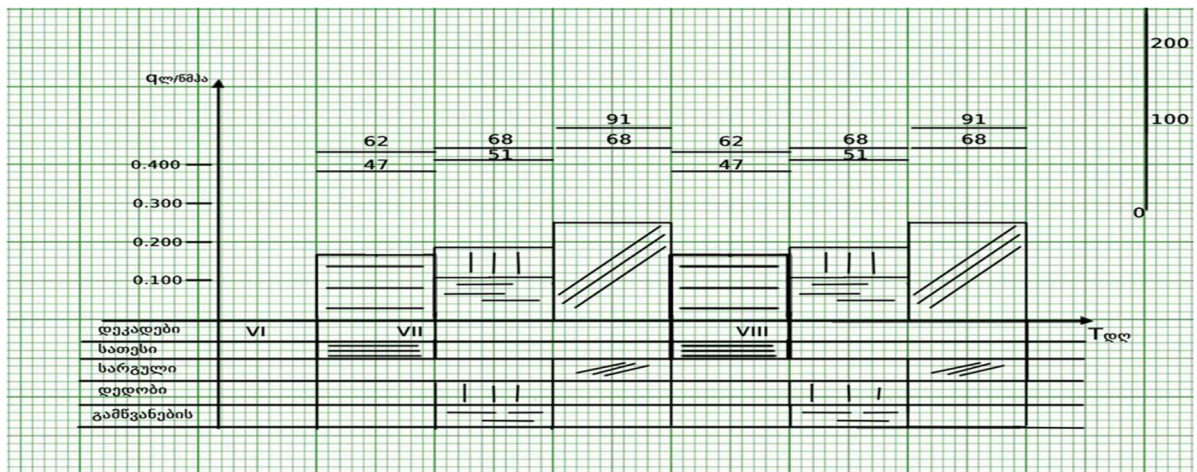
1.07-10.07 $Q_{neto} = q\omega_{bruto} = 0.173 * 27 = 47$ $Q_{neto} = \frac{Qb}{\eta} \text{ l/sec} = 47 / 0.75 = 62$

The water demand calculated by the above formula with all ordinates of the hydromodule is the net cost that must be supplied directly to the irrigated area. Calculated for the entire vegetation period

Irrigation water costs for farming Table 9

Period of water demand			Maximum ordinate	Water demand l, sec	m qk
Start	End	l/s ha	Qneto	Q bruto	0,75
1.07	10.07	0,173	47	62	
10.07	20.07	0,190	51	68	
20,07	30,07	0,252	68	90	
1.08	10.08	0,173	47	62	
10.08	20.08	0,190	51	68	
20,08	30,08	0,252	68	113	

The water demand will be applied to the completed schedule of the hydro module. The so-called irrigation water taken from the source The gross cost should take into account all losses (filtration, evaporation, etc.) that reduce the volume of water supplied. These losses are taken into account by the so-called Irrigation system performance coefficient η (mcc), which depends on the type of irrigation system and its technical efficiency



Completed schedule of hydro module with water demand curve

The irrigation network has been paved by me, so the MCC of the system will be equal to $\eta = 0.75$. Table No. 9 shows the amounts of net and gross costs required for farming.

Conclusion

In the work, the necessary water demand for the forest managers of the village of Zugdidi municipality is determined; Taking into account the climatic factors, the necessity of irrigation for the nursery in the village of Zeda; Water balance coefficient. 80% surface runoff water supply is calculated and a schedule is constructed, which is significantly different from the current one. Irrigation rate (amount of water supplied to one hectare area during one irrigation) is calculated for each department of forestry in the upper register, which is significantly different from the current one. The amount of water supplied per unit of time (hydromodule) is defined, which was determined according to the irrigation norm and the calculation of irrigation terms, the amount of water supplied per hectare, per percent of the area. An uncompleted graph is constructed, as a result of which the water demand curve is constructed as a result of completion. which is different from the existing one.

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Determining the amount of irrigation water for Korboli nursery of Sachkheri municipality

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Resume

The paper refers to the determination of the water requirements for the nurseries of the village of Korbouli of the Sachkheri municipality. Taking into account climatic factors, the necessity of irrigation for the nursery of the village of Zeda Esri and the water balance coefficient have been established. The schedule of 80% water supply of surface runoff has been determined and built, which is significantly different from the current one.

In order to determine the amount of water supplied per unit of time (hydromodule), we determined the irrigation norm for each section of the nursery farm (the amount of water supplied per one hectare area during one irrigation period) is determined per hectare area and the amount of water supplied per percentage of the area is constructed as an uncompleted graph, the water demand curve is constructed as a result of its completion. which is also different from the existing one.

Key words: water demand, surface runoff. Hydromodule, irrigation norm, water supply.

Introduction

The village of Korboli of Sachkheri municipality is located in the Imereti region of Georgia, which is distinguished by its peculiar climate and mountainous terrain.



Fig. 1. Korbouli village of Sachkheri municipality

Natural climatic conditions - Sachkheri municipality - administrative-territorial unit in Georgia, Imereti region. The coordinates are: 42°20'43" H. c. 43°25'10" a. c. The administrative center is the city of Sachkhere. The territory of the municipality is 973 km².

It is located in the basin of the upper and middle streams of the rivers Khurili, Zhiruli. Bordering municipalities are: Oni and Ambrolauri municipalities in the north, South Ossetia Provisional Administrative District in the east, Khashuri and Kharagauli municipalities in the south, and Chiaturi municipalities in the west.

Approximately 70% of the water demand of forestry farms comes from the share of irrigation, the correct determination of the study of agroclimatic and soil fertility depends a lot on the determination of water demand. The role of water remains an irreplaceable resource for Corbowl forestry.

Forestry crops are symbols of life. In recent years, 84,000 evergreen plants have been planted on the mountain slopes in Sachkheri municipality. Interest in forestry has increased in the municipality. Many nursery farms have been created. The endemic varieties in the territory of the village of Korbouli of Sachkheri municipality are important.

Korboli - a village in Sachkheri municipality, the center of the community. The coordinates are 42°13'46" H. c. 43°28'17" a. c. It is located 790 meters above sea level, 18 km from Sachkheri, 145 km from Tbilisi. "It is bordered from the north by Goris, Mozvi and Jalaurta, from the south

by the Dzirula River, the villages of Khvani, Chalovani and Lichi. From the east by the villages of Shida Kartli, and from the west by the villages of the Chiaturi Municipality - Bereti and Unnamelo. The valley. From the east, the Seres of the Essyrians and the Essians".

The average annual temperature is 10 °C. The average temperature in January is 0.3 °C, in July 22.5 °C. Absolute minimum -31 °C, absolute maximum 41 °C. Precipitation 1480 mm. per year.

Average annual temperature

Table 1

Month	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual	Average
°C	-0.8	2.1	6.6	9.7	16.9	20.4	22.0	22.3	18.2	9.8	5.9	4.1	137.2	11.4

Atmospheric precipitation

Table 2

Months	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual	Average
mm	21	104	55	85	32	128	74	53	40	130	59	82	863	72

Relative humidity

Table 3

Months	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual	Average
	79	76	71	73	66	69	77	73	73	80	82	82	901	75

There is both broad-leaved and coniferous forest in the village of Corbowli. Soil types include: mountain, desert, alkaline and alluvial soils. The area of the village is 7.5 km². Arable areas occupy 2150 ha, pasture 1315 ha, perennial plants 7 ha, mowing 40 ha, forest and shrubland 3098 ha. All departments of Korboli forestry are functioning.

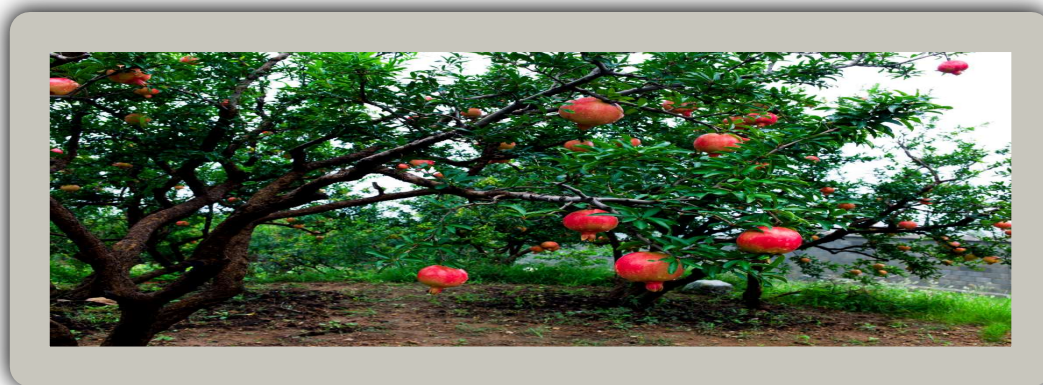


Fig. 2

Sachkheri municipality, village of Koboli, pomegranate garden.

The village of Korboli is rich in hydrographic network, small rivers Gabandula, Sakanafura, Sachkefela and others flow through the village. The main river is Dumala. It dries periodically. There is a large reservoir on the border of Korbouli and Beretis, from which water is pumped for irrigation in the villages of Chiaturi municipality.

Main part

Determining the need for irrigation of the Korboli nursery farm

Determining the need for irrigation of the Korboli forestry farm was carried out by Prof. G.T. By Selianinov's method, when the sum of temperatures of three summer months is taken as an indicator of water consumption, reduced by ten times, the ratio of the sum of precipitation to the sum of temperatures of the same period. According to the Selianinov method, the coefficient was determined depending on the water balance.

$$K = \frac{\Sigma P}{\Sigma t : 10}$$

As a result of the summary of the climatic conditions, the need for irrigation of the Korboli nursery has been established.

where ΣP - the sum of atmospheric precipitation for three summer months.

Σt - the sum of temperatures of three summer months.

As a result of the summary of climatic conditions, the need for irrigation of the overhead nursery is established.

$$K = \frac{\Sigma P}{\Sigma t : 10} = \frac{86.3}{234.6} = 0.4$$

In order to determine the 80% guarantee, the amount of annual runoff is sorted from the largest to the smallest /table 5, column 3 /groups are separated with the desired interval, in our case 10000 m³.km²./column 4/. The number of years whose annual runoff is placed in each group in our case was calculated (table 5) 140000-131000m³/km² group includes 2 years, 130000-121000m³/km² group includes 1 year, etc. The number of years is recorded in the last column with an incremental sum.

It is clear the amount of runoff with 80% assurance, i.e. surface runoff is the amount of water that will repeat itself 80 times in 100 years.

Table 4

N	Years	Runoff in thousands of m ³ km ²
1	1999	88
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16	2014	75
17	2015	73
18	2016	39
19	2017	45
20	2018	43
21	2019	90
22	2020	82
23	2021	79
24	2022	92
25	2023	70

In order to determine the 80% guarantee, the amount of annual runoff is sorted from the largest to the smallest /table 5, column 3 /groups are separated with the desired interval, in our case

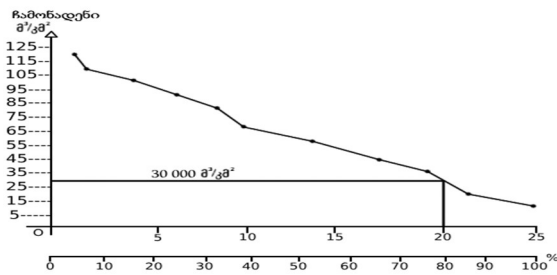
10000 m³.km²./column 4/. The number of years whose annual runoff is placed in each group in our case was calculated (table 5) 140000-131000m³/km² group includes 2 years, 130000-121000m³/km² group includes 1 year, etc. The number of years is recorded in the last column with an incremental sum.

Based on the obtained data, the provision curve is calculated. In Fig. 1, years will be measured on the abscissa axis, and rainfall on the ordinate axis, observing the selected intervals.

Table 5

Numbering of years	year of observation №	Annual precipitation deposit δ^3/δ^2	runoff groups δ^3/δ^2	Number of years in the group, n	incremental sum, Σn
1	2	3	4	5 /4,3/	6/5+6/
1	24	125	125-115	3	3
2	2	120			
3	25	115	114-110	1	4
4	22	111			
5	21	109			
6	16	105	109-100	4	8
7	23	102			
8	10	100			
9	9	95	99-90	2	10
10	19	95			
11	20	85			
12	18	84			
13	15	81			
14	8	80	89-80	4	14
15	11	76			
16	17	74			
17	6	73			
18	7	71	79-70	4	18
19	3	69			
20	4	65			
21	14	55			
22	5	48			
23	13	44	69-60	2	20
24	12	41			
25	1	40	59-50	1	21
			50-40	4	25

On the basis of the received data, a provision curve was built. In order to determine the amount of runoff with 80% assurance, we measure 80% on the abscissa axis, from where it rises to the crossing of the control assurance curve, we draw a horizontal line to the ordinate axis, where



Scheme 1 80% runoff assurance curve

We read that 80% coverage corresponds to an annual runoff of 30,000 m³/km².

Determining the area of each section for the nursery of corbouli village-The area of the blueberry nursery in the village of korbouli municipality is 27 ha, where nursery departments are located: 1. Sowing and cutting

Determining the area of each section for the nursery of corbouli village-The area of the blueberry nursery in the village of sachkhete municipality is 23 ha, where nursery departments are located: 1. Sowing and cutting department 6.9ha; 2. Sarguli section 9.2 ha; 3. Dedobi plantation 2.3 ha; 4. Landscaping (decorative) department 4.6 ha;

The area percentage of each section was determined by dependence

$$\alpha = \frac{\omega_1}{\omega} 100$$

where ω -the percentage of the area of each section

ω_1 -the area of each section in ha,

ω -the total area of the nursery.

1. Sowing, transplanting section located on an area of 6.9 ha $\alpha = 6.9 \cdot 100 / 23 = 30$
2. Garden section on the area of 9.2 ha $\alpha = 9.2 \cdot 100 / 23 = 40\%$
3. Mother plantation on the area of 2.3 ha $\alpha = 2.3 / 23 \cdot 100 = 10\%$
4. Greening (decorative) section on the area of 4.6 ha $\alpha = 4.6 / 23 \cdot 100 = 20\%$

The rate of irrigation for each section was determined by dependence

$$m = 100H\alpha(r_{zr} - r_{zr 80\%}) \text{ m}^3/\text{ha}$$

Where m - irrigation rate is m³/ha

H - is a different active layer for vegetable plants – 0.3–0.5 m; for field plants - 0.6-0.8 m; for perennial crops - 0.7-0.8 m; for nursery 0.6-0.8 m

α - Simple volumetric mass within 0,5-1,5

r_{zr} -Limit soil moisture/optimal soil moisture in the active layer, in %.

$r_{zr 80\%}$ -Minimum 80% soil moisture allowed for watering

Calculation irrigation norms for all sections, when it contains what contains the marginal capacity of moisture $r_{zg} = 32.5\%$, mass volumetric $a = 1.35 \text{ m}^3/\text{ha}$

1. Sowing and cutting department:

$$m = 100H\alpha(r_{zr} - r_{zr 80\%}) = 100 \cdot 0.6 \cdot 1,27 / 35.6 - 28.48 = 76.2 \cdot 7.12 = 542.544 = 550 \text{ m}^3/\text{ha}$$

2. Garden department:

$$m = 100H\alpha(r_{zr} - r_{zr 80\%}) = 100 \cdot 0.7 \cdot 1,27 \cdot 7.12 = 632,968 = 650 \text{ m}^3/\text{ha}$$

3. Mother plantation:

$$m = 100H\alpha(r_{zr} - r_{zr 80\%}) = 100 \cdot 0.8 \cdot 1,27 \cdot 7.12 = 723,392 = 700 \text{ m}^3/\text{ha}$$

4. Greening (decorative) department:

$$m = 100H\alpha(r_{zr} - r_{zr 80\%}) = 100 \cdot 0.6 \cdot 1,27 \cdot 7.12 = 542,544 = 550 \text{ m}^3/\text{ha}$$

Calculation of the hydromodule of each section - according to the given irrigation periods, calculate the hydromodule for each section 1. Sowing and cutting section - 1.6-15VII; 2.6-15 VIII; 2. Planting section - 1.21-31VII; 2.16-25VIII 3. Mother plant 1.21-31VII2. 11-15 VIII4; Planting (decorative) department. 1. 11-20 VII; 2. 11-20 VIII

For all irrigation periods of each section of the nursery farm, let's calculate with the hydromodule dependence:

Calculation of the hydromodule of each section - according to the given irrigation periods, calculate the hydromodule for each section 1. Sowing and cutting section - .06-10.06; 5.07-10.07; 10.08-20.08; 2. Planting section -.04-25.04; 5.05-15.05; 10.06-20.06; 10.07-20.07; 20.08-30.08 3. Mother plant 10.04-25.04; 5.05-15.05; 10.06-20.06; 10.07-20.07; 20.08-30.08; 4; Planting (decorative) department. 20.06-30.06; 15.07-25.07; 10.08-20.08; 20.08-30.08;

For all irrigation periods of each section of the nursery farm, let's calculate with the hydromodule dependence:

For all irrigation periods of each section of the nursery farm, let's calculate with the hydromodule dependence:

$$q = \frac{m \cdot 1000}{T \cdot 86400} \cdot \alpha \text{ l/s ha}$$

Where q- is the hydromodule l/s ha;

m-watering rate . m³/ha

T-number of days and nights in the irrigation period;

α-area of each section in %

86400 number of seconds per day;

1000 - conversion factor from m³/ha to liters.

1. calculate the hydromodule for the first period of irrigation of the sowing and cutting section.

$$q_1 = \frac{m \cdot 1000}{T \cdot 86400} \cdot \alpha = \frac{550 \cdot 1000}{10 \cdot 86400} \cdot 0.30 = 0.636 \cdot 0.30 = 0.190 \text{ l/sha};$$

$$q_2 = \frac{m \cdot 1000}{T \cdot 86400} \cdot \alpha = \frac{550 \cdot 1000}{5 \cdot 86400} \cdot 0.30 = 1.273 \cdot 0.30 = 0.381 \text{ l/sha};$$

$$q_3 = \frac{m \cdot 1000}{T \cdot 86400} \cdot \alpha = \frac{550 \cdot 1000}{10 \cdot 86400} \cdot 0.30 = 0.636 \cdot 0.30 = 0.190 \text{ l/sha};$$

2. Garden department:

$$q_1 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{650 \cdot 1000}{15 \cdot 86400} \cdot 0.40 = 0.501 \cdot 0.40 = 0.200 \text{ l/sha};$$

$$q_2 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{650 \cdot 1000}{10 \cdot 86400} \cdot 0.40 = 0.752 \cdot 0.40 = 0.300 \text{ l/sha};$$

$$q_3 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{650 \cdot 1000}{10 \cdot 86400} \cdot 0.40 = 0.752 \cdot 0.40 = 0.300 \text{ l/sha};$$

$$q_4 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{650 \cdot 1000}{10 \cdot 86400} \cdot 0.40 = 0.752 \cdot 0.40 = 0.300 \text{ l/sha};$$

$$q_5 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{650 \cdot 1000}{10 \cdot 86400} \cdot 0.40 = 0.752 \cdot 0.40 = 0.300 \text{ l/sha};$$

3. Mother plantation.

$$q_1 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{700 \cdot 1000}{15 \cdot 86400} \cdot 0.10 = 0.540 \cdot 0.10 = 0.054 \text{ l/sha};$$

$$q_2 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{700 \cdot 1000}{10 \cdot 86400} \cdot 0.10 = 0.810 \cdot 0.10 = 0.081 \text{ l/sha};$$

$$q_3 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{700 \cdot 1000}{10 \cdot 86400} \cdot 0.10 = 0.810 \cdot 0.10 = 0.081 \text{ l/sha};$$

$$q_4 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{700 \cdot 1000}{10 \cdot 86400} \cdot 0.10 = 0.810 \cdot 0.10 = 0.081 \text{ l/sha};$$

$$q_5 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{700 \cdot 1000}{10 \cdot 86400} \cdot 0.10 = 0.810 \cdot 0.10 = 0.081 \text{ l/sha};$$

4. Greening (decorative) department.

$$q_1 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{550 \cdot 1000}{10 \cdot 86400} \cdot 0.20 = 0.636 \cdot 0.20 = 0.127 \text{ l/sha};$$

$$q_2 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{550 \cdot 1000}{10 \cdot 86400} \cdot 0.20 = 0.636 \cdot 0.20 = 0.127 \text{ l/sha};$$

$$q_3 = \frac{m \cdot 1000}{T \cdot 86400} \cdot a = \frac{550 \cdot 1000}{10 \cdot 86400} \cdot 0.20 = 0.636 \cdot 0.20 = 0.127 \text{ l/sha};$$

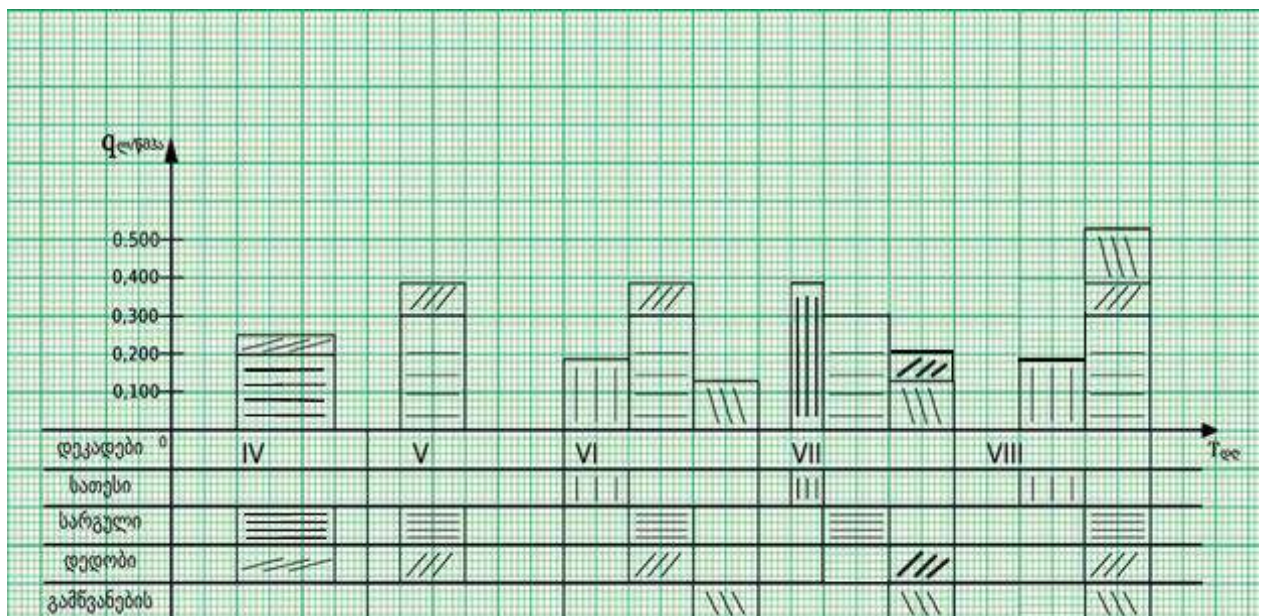
Construction of unassembled schedule of hydromodule, evaluation and assembly.

We calculate hydromodules for all sections, all periods of irrigation and enter data into the table in the form of common data to build an uncompleted schedule of hydromodules

Table6

departments	area		Watering N	irrigation period		Number of days	Irrigation rate m ³ /ha	Hydromodulus values	
	Ha	%		start	End			on 1 ha	on % of area
Sowing section	6.9	30	1	1.06	10.06	10	550	0.636	0.190
			2	5.07	10.07	5		1.273	0.381
			3	10.08	20.08	10		0.636	0.190
planting section	9.2	40	1	10.04	25.04	15	650	0.501	0.200
			2	5.05	15.05	10		0.752	0.300
			3	10.06	20.06	10		0.752	0.300
			4	10.07	20.07	10		0.752	0.300
			5	20.08	30.08	10		0.752	0.300
Maternity department	2.3	10	1	10.04	25.04	15	700	0.540	0.054
			2	5.05	15.05	10		0.810	0.081
			3	10.06	20.06	10		0.810	0.081
			4	20.07	30.07	10		0.810	0.081
			5	20.08	30.08	10		0.810	0.081
Plantation Department	4.6	20	1	20.06	30.06	10	550	0.636	0.127
			2	20.07	30.07	10		0.636	0.127
			3	20.08	30.08	10		0.636	0.127

Data for unassembled graphics of the hydro module



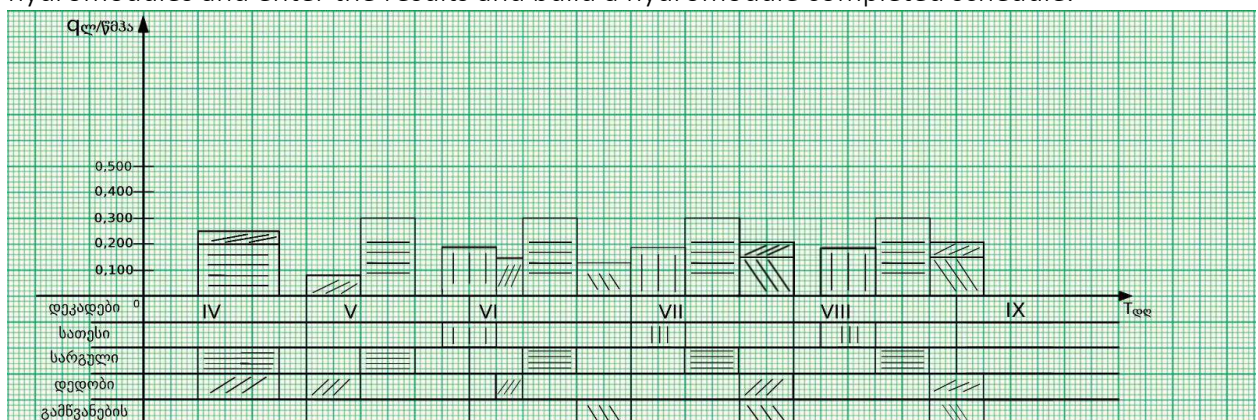
The constructed graph shows the amount of water per hectare per unit of time for the overhead nursery, clearly showing that the water demand during the irrigation period is negligible. Such a schedule is determined by the defined water recovery needs of the Saravi system, the calculation of the maximum costs, as a result of which the volume of treatment will increase significantly and the price will be significantly higher. In order to reduce construction costs, it is necessary to achieve a lowering of the ordinate of the hydromodulus schedule, which requires correction and completion of the schedule itself. In this direction, it is directed to move the

irrigation periods up or to the left by 5-6 days, and if this measure is not taken, then the extension of the times is delayed by 5-6 days. Accordingly, we compiled a schedule for making changes in the specified watering periods. Scheduling more plains and equals of the schedule, watering days of mother plantation, duration is 5 days, let's increase 1 day. About the same would be true of the included schedule savings

Table7

N	Department	area		watering N	irrigation period		Number of days	Irrigation rate	Hydromodule l/s/ha	
		ha	%		start	End			on 1 ha	on % of area
1	Sowing section	6.9	30	1	25.05	5.06	10	550	0.636	0.190
				2	1.07	10.07	10		0.636	0.190
				3	5.08	15.08	15		0.424	0.127
2	planting section	9.2	40	1	10.04	25.04	15	650	0.501	0.200
				2	10.05	20.05	10		0.752	0.300
				3	10.06	20.06	10		0.752	0.300
				4	10.07	20.07	10		0.752	0.300
				5	15.08	30.08	15		0.501	0.200
3	Maternity department	2.3	10	1	10.04	25.04	15	700	0.540	0.054
				2	1.05	10.05	10		0.810	0.081
				3	5.06	10.06	5		1.162	0.162
				4	20.07	30.07	10		0.810	0.081
				5	25.09	5.09	10		0.810	0.081
4	Plantation Department	4.6	20	1	20.06	30.06	10	550	1.273	0.127
				2	20.07	30.07	10		1.273	0.127
				3	25.08	5.09	10		1.273	0.127
		Everedge	23	100						

During the irrigation period, it has been several days since we changed to calculate the hydromodules and enter the results and build a hydromodule completed schedule.



Completed schedule of hydromodule.

The difference between the ordinates in the completed graph of the constructed hydromodule is minimized and therefore the water demand is quite equalized.

After constructing the completed schedule, we calculate the amount of water needed for farming. The amount of water required for farming is calculated depending on the situation

$$Q_{neto} = q \cdot \omega$$

where q is the highest ordinate of the hydromodule graph in the reporting period in l/s; ω is the net area of the net farming lands, ha; Q is the water that can be used for the benefit of the net farming, excluding losses, which is always less than the amount of water that the farm should receive from the water intake allocated to it, which is calculated by dependence.

$$Q_{nruto} = \frac{Q_{Net}}{\eta} \text{ l/secha}$$

where η is the coefficient of action of the domestic agricultural irrigation network, let's say in our case $\eta = 0.7$

According to the compiled schedule, $Q_{net} = 0.210 \cdot 27 = 5.67$ l/s in period 5-15/VII, and $Q_{net} = 0.208 \cdot 27 = 0.05$ l/s in 11-20/VIII, the nursery should receive water from the intake in the first period, i.e. 1-10/ VII $Q_{gross} = (5.67)/(0.7) = 8.1$ l/s in the second period 11-20/VIII $Q_{gross} = (0.05)/(0.7) = 7.4$ l/s, in the same way we calculate Q_{neto} and Q_{gross} values for the rest of the period and the results will be included in the table

Let's put the water demand of the nursery on the compiled graph of the hydro module and build the water demand curve.

$$10.04-25.04 \quad Q_{neto} = q \cdot \omega_{neto} = 0.200 \cdot 23 = 46 \quad Q_{bruto} = L / \text{secha} = 46 / 0.75 = 61$$

Table 8

N	Period of water demand		Maximum ordinate	Water demand l, sec		mqk
	Start	End	L/ secha	Q_{neto}	Q_{bruto}	
1	10.04	25.04	0.200	46	61	0.75
2	1.05	10.05	0.081	18	24	
3	10.05	20.05	0.300	70	93	
4	25.05	5.06	0.190	44	59	
5	5.06	10.06	0,162	37	49	
6	10.06	20.06	0.300	70	93	
7	20.06	30.06	0.127	29	39	
8	1.07	10.07	0.190	44	59	
9	10.07	20,07	0,300	70	93	
10	20.07	30,07	0.162	37	49	
11	5.08	15.08	0.190	44	59	
12	15,08	25,08	0,300	70	93	
13	25,08	5.09	0,162	37	49	

demand will be applied to the completed schedule of the hydro module. The so-called irrigation water taken from the source The gross cost should take into account all losses (filtration, evaporation, etc.) that reduce the volume of water supplied. These losses are taken into account by the so-called Irrigation system performance coefficient η (mcc), which depends on the type of irrigation system and its technical efficiency

Conclusion

In the paper, the water demand for the forest managers of the village of Korbouli of the Sachkheri municipality is determined; Considering the climatic factors, the necessity of irrigation for the nursery of Korbowli village; Water balance coefficient. 80% surface runoff water supply is calculated and a schedule is constructed, which is significantly different from the current one. For each division of Corbowli Forestry, an irrigation rate (amount of water supplied per hectare during one irrigation) has been calculated, which is significantly different from the current one. The amount of water supplied per unit of time (hydromodule) is defined, which was determined according to the irrigation norm and the calculation of irrigation terms, the amount of water supplied per hectare, per percent of the area. An uncompleted graph is constructed, as a result of

which the water demand curve is constructed as a result of completion. which is different from the existing one.

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