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HAMZA'S DRAMAS

Abstract: The work of Hamza Hakimzoda Niyazi (1889 - 1929) has a special place in the history of Uzbek literature. Twentieth-century Uzbek literature cannot be imagined without his works. Hamza's dramas are among the most perfect. His dramas, such as "Poisonous Life or Victims of Love," "A Tablet of the Secrets of the Paranji, or the Case of the Hirelings," and «Former Judges or the case of the Maysara» are recognized as important new developments in Uzbek literature. These dramas show the deep-rooted flaws in social life based on the realities of everyday life. The great artist explained that the rise of Turkestan was largely due to the fact that the local population was deprived of modern enlightenment, and officials were obsessed with luxury and life. In his dramas, Hamza truly embodied the national landscape. This article addresses this issue.

Key words: Hamza, drama, comedy, character, national life, conflict, enlightenment, Islam, local officials, justice, truth, darkness, vernacular.

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Introduction

The contradictions of life are real, the works written with pain really reach the heart. People are involuntarily influenced by such works. The works of Hamza Hakimzoda Niyazi have such weight. His poems and dramas are imbued with a high sense of enlightenment. They condemn the ignorance, ignorance, ignorance, materialism, which are deeply rooted in life and hinder progress, and show that life is ruined and people are degraded spiritually and morally. Hamza does not invent events, he takes them from life itself. His poems and dramas attract attention with their vitality. Although Hamza's poems are written based on classical poetic traditions, they are simple, fluent, and most importantly, easily understood. The same cannot be said of the poems of many poets of the early twentieth century. In their poems, the weight of Arabic and Persian poems is higher than Uzbek words. It is a bit difficult to understand the same poems without a dictionary, which are written in accordance with the rules of the dream. It is obvious that these poems are somehow strained, often erased and scratched. Hamza's poems are popular and very smooth. They are easy to read, pleasant to the ear, and if read or heard two or three

times, many of the verses will be memorized on their own. Hamza's poems have a strong melody typical of folklore. They are meaningful and musical. Thoughts of enlightening and propagandistic content in poems quickly affect one's emotions. Because they talk about the ugly flaws in marriage. Hamza denounces the ignorance that has put people to sleep, criticizes the old customs, excessive spending on weddings, drug addiction, prostitution and other things that are destroying the masses and making people's lives meaningless. Hamza's works are in harmony with the works of poets and writers such as Fitrat, Cholpon, Abdullah Qadiri. The main theme of Uzbek literature of the early twentieth century was to expose the deep-rooted religious bigotry, extravagance, materialism, drug addiction, homosexuality, promiscuity, and to encourage the study of science and enlightenment, which are deeply rooted in Turkestan. The same issues underlie Hamza's work. They lament the fact that the local population is mired in absurd customs, domestic depravity, ignorance, and, as a result, deprived of the progressive changes of the time, and therefore oppressed by the colonialists. Hamza, like Mahmudhoja Behbudi, Abdulla Avloni, Fitrat, Cholpon, Abdulla Qodiri, burns with the pain of the

nation. Common problems for Jadid literature also determine the essence of Hamza's works. In this respect, the artist's dramas deserve special attention. It should be noted that Hamza's dramas have a special place in the history of Uzbek literature. Uzbek drama, and Uzbek literature in general, cannot be imagined without Hamza's The Case of the Former Judges or Maysara, A Tablet of the Secrets of the Paranji, or The Case of the Yallachis. This is not to say that Hamza's work was treated differently during the Soviet era and in the years that followed. In addition, Hamza's works, like those of other poets and writers, speak of the miserable lives of people, their longing for a free and prosperous life, and condemn ignorance. In Hamza's dramas, the reality of life is artistically embodied through impressive images without being simply described. The literary heroes in them look just like the people in life. The interactions and behaviors of the characters in Hamza's dramas are very natural and vital, and their words and interactions with each other are also lively and impressive, so each of them evokes a certain relationship.

Hamza dramas are based on life events. They show the flaws in marriage. The artist's dramas, as well as his poems, express heartache and focus on the problems that afflict the heart.

"Secrets of the Paranji" is a five-act drama, created in 1927. The author writes, "Kokand was taken from the marriage of Mastura Hafiz, one of the famous yallas. The events took place in 1882-1919. In this play, the filthy vices and ugliness that are deeply rooted in marriage are shown. Each scene of the drama features several characters. Their inferiority complex arouses hatred in man. The live action of the heroes of different characters testifies to the high skill of the author. The language of the characters is rich in irony and irony. At the same time, they are deeply meaningful and impactful. The drama vividly demonstrates that the Uzbek language has the ability to fully and beautifully express any event in the life of the people. The Secrets of the Paranji is one of the rare works that shows that the language of the people is an inexhaustible treasure. Such works reflect the unique image of national literature.

This drama by Hamza, like his other works, deals with the violation of women's human rights. This topic has a special place in the world literature of the XX century. As in the works of Fitrat, Cholpon, Abdullah Qadiri, in the dramas of Hamza, the issue of women's freedom, love and family is at the center of the work. "Poisonous Life or Victims of Love" is the artist's first drama on the subject. In The Secrets of the Paranji, the author addresses this issue again and covers it extensively and deeply. In these dramas, the ideas of enlightenment found their artistic expression. The Jadids, who emerged in Turkestan as a proponent of innovation in the swamp of ignorance, promoted the ideas of enlightenment and believed that our people could improve their lives, achieve progress and enjoy the latest innovations through reading and learning.

The dramas "Poisonous Life", "Secrets of the Paranji", "The Case of Maysara" are in part related to the ideas put forward in Abdullah Qadiri's "Last Days", "Scorpion from the Altar", Cholpon's "Night and Day", "Tulip in the Snow", "Bread Girl". and synchronization. They focus on the rights of women and their human rights. For centuries, women's rights and freedoms have been restricted. In Eastern countries, this defect is particularly tragic. As the girls reached puberty, they wore shawls for the rest of their lives so as not to show their faces to other men than family members. Rather, they were forced to do so. The dramas "Secrets of the Paranji", "The Case of Maysara", and "Poisonous Life" reflect the tragic situation in the lives of Uzbek women. They expose the vile deeds of those who distort the essence of Islam for their own benefit, use the veil as a mask, and commit immorality. Hamza artistically exposed the domination of violence, the violation of the rights, freedoms and dignity of others in an environment of ignorance, money and wealth above all else, based on life events. The significance and uniqueness of these dramas is determined by the fact that they raise the same topical social problem, and that they reflect the general direction of world literature of the early twentieth century.

The same problem exists on the basis of Abdullah Qadiri's novels "Last Days" and "Scorpion from the Altar". They show that marriage is not the will of young people, that khans and officials, rich people abuse women as much as they want, human freedom is violated, women's rights are restricted, which leads to serious social problems and tragedies. Hamza's dramas also show this fact through a true portrayal of life events. The heroes in them are artificial, not artificial. The characters in "Secrets of the Paranji", "The Case of Maysara", "Poisonous Life" give the impression of people in life. In The Secrets of the Paranji and The Case of Maysara, as in Cholpon's novel Night and Day, the richness of the local people, the greed, the immorality, the narrow-mindedness, the ambition of the officials, the oppression of the human rights of others, are impressively revealed. The main idea of these works is to change people's minds, to explain to them their human rights and dignity, and on this basis to eliminate the existing scandals in life. The same works are significant in that they show that living in a society where people do not understand their rights, their human dignity, is an extreme suffering for people.

Each character in Hamza's dramas evokes a certain attitude towards himself. Maryamkhan and Mahmudkhan in "Poisonous Life", Kholishon and Rustambek in "Secrets of Paranji", Aykhan and "Shepherd" in "The Case of Maysara" evoke feelings of sorrow, while those who pollute their happiness arouse hatred. The content of these works determines

the exposure of those who live for the sake of their own interests, for the sake of the pleasures of their souls. The "Secrets of the Paranji" exposes the vile deeds of those who have committed prostitution. The Norwegian woman, having two wives, wants to marry a young girl, Kholiskhan. To do this, he hires a master Mastura yallachi, who is engaged in collaboration. This woman and her partners, who do not back down from any humiliation for the sake of money, engage in unclean, degrading activities for the sake of the life of such greedy, morally depraved people as Norboyvachcha. Like Kholiskhan, Mastura becomes a victim of the prostitution and depravity of the Norwegians. The drama shows that inhuman depravity arises in an environment dominated by lawlessness. Mastura yallachi, who does not shy away from the bottom, believes that any problem can be solved with money. "Money is the only thing that ends with death," he said (Hamza Hakimzoda Niyazi. Selected Works. - Tashkent: Uzdavnashr, 1954. - p. 288 - p. 211). This belief has always caused a great deal of disgrace. Because those who live with such a belief only hurt themselves a lot, thinking only of their own interests, life, and well-being. Unfortunately, those who value money above all else can always be found as they please. Worst of all, it is because of them that life becomes more complicated and many suffer from it. In their works, each artist first of all narrates this intricate puzzle. Hamza also exposes the spiritual poverty of those who measure the meaning of life only by money, so that they do not return from any depravity, humiliation, in the way of their life. The Norwegian in The Secrets of the Paranji lives only to make a living, while the Mastura yallachi and his companions live to earn money no matter what. They can easily bully and insult others in order to achieve this goal. But their conscience is not troubled. Mastura is well aware that the actions of the yallachi and his accomplices do not conform to the requirements of Sharia, nor to the laws of society, nor to the standards of humanity. Norboyvachcha said, "Open the trade to me ... The devil will roam in your narrow streets." Mastura said, "These belts will not be untied for my dry run." We sold two worlds and got this belt, Norboyvachcha! " he openly admits that he is doing low things. Norwegian arrogance goes even further. Therefore, he said, "Is it permissible for all the wives of the nomads who did not take the heads of the twenty-five when they were told to do so to be of three divorces? You know who this street does not kafangado, who does not deprive the young soul. I gave three hundred sums to six barefoot people, and I did it to the daughter of an executioner like Sultan. " Mastura said, "These things end in the shadow of death, my dear. Every profession has its own chain "(Ibid., Pp. 209-210). In this way, the playwright reveals that those who have usurped the abduction of someone's daughter, his wife, will never be spared from this abominable deed.

As the saying goes, "Everyone reaps what he sows." This means that every nation sees the consequences of its actions. The people of Turkestan also fell into decay and fell into colonial slavery due to their greed and lack of enlightenment. The same fact is emphasized in Jadid literature. The main content of the works of the Jadids is to show that the officials, the rich, committed fraud and violence in order to gain their wealth, gave in to materialism and did not shy away from vile deeds. This issue is also at the heart of Hamza's dramas. Abdullah Qadiri in his novel "Scorpion from the Altar" reveals that clerics and scholars were instrumental in the immoral desires of khans and officials, while Hamza's "Secrets of the Paranji" and "The Case of Maysara" reveal this theme in the drama genre. The surviving part of the drama "The Rich and the Servant" also highlights the rich man's greed and the fact that the judge, the imam, and the fifty-year-old are his accomplices in dirty deeds. Jamila, the wife of the rich servant Ghafir, leaves her husband and insists that she marry him, even if she is upset if he does not agree to touch me. The judge, the imam, summoned Ghafir, the chief of the fifties, and pressed him, saying, "You will give up your wife." The rich man also said to Jamila, "Listen, no one has been able to meet Salihboy's dream! I said I'll do something - I'll do it! My gold is such a clever spy, such a quick-witted thief, such a clever assassin, such a great judge, that if you go down to earth, if you go up to heaven, it will be taken from your feet and put in my arms like an apple! " (Ibid., p. 82).

Those who believe in their position and wealth become so violent in an environment dominated by lawlessness. Because they know that they will go unpunished even if they commit any crime. To see beautiful Norwegian women, women go to the graves in their veils. He sees the beautiful Tolakhan, the seventeen-year-old daughter of Umrzaqboy, in Sukmazor and seeks to capture her. Tolakhan's father is a wealthy man of the country. Norboyvachcha is also dear to Tolakhan's brother. According to him, the two "shot gostinitsama-gostinitsa" (Ibid., P. 208). Norwegian Tulakhan's parents are well aware that they will not give him "a daughter who has not seen a groom for two days." However, he tramples on Tolakhan's rights and abuses him. The "Secrets of the Paranji" reveals the ugly face of an environment dominated by violence, prostitution, fraud, and lawlessness, and reveals the factors of these vices. The plot of the drama is full of serious conflicts, as in adventure-detective works. Mastura serves the interests of the wealthy like Norboyvachcha. He boasted, "Out of my hands came five hundred secrets, satans, and akabachchas" (Ibid., P. 213). At the same time, it also reveals the causes of the various depressions that have erupted in the country. She said: "When I was twenty, I kidnapped girls from every country. All of them hit the ground by force, were disappointed, played with what they loved ... Now, if

more than half of our country is akabachi, the rest is to play. No matter what he does, when he does not reach the one he loves, he finds despair and plays, or consoles himself with satanism and akabachism. "(Ibid., P. 213).

The drama shows that ugly people like Norboyvachcha can't do anything on their own, they rely on those like Mastura who don't back down from any humiliation for money. Mastura, the chief of the mercenaries, was fifty-five years old. He intends to go on pilgrimage. She said to her husband, "How can I stand up on the Day of Judgment if I die without rubbing my black faces on the house for you ... I sewed a doppia and collected money to go on Hajj" (Ibid., P. 219). But human trafficking is dusting off the happiness of others. Mastura, along with her husband Mirzarayim and her partner Guljon, cheated Tulakhan and ruined his life. Mastura, her husband and Guljon are a group of organized criminals. They engage in deception, fraud. Because they believe that they can easily get away with it even if their guilt is known. Mastura's second husband, Mirzarayim, earns a fortune, walks in hotels, drinks beer and spends his days in life. He said, "Whatever happens (pointing to the money), I refer to this great ballad." It's over ... Is there a government in the country? (Playing with money on the ceiling) Here's the government in the country. Here is the governor, the governor, from the frog to the judge !: In the middle of the day, a poor man's thirteen-year-old daughter was covered in a veil, and she was murdered and buried. What did they do? He was imprisoned for only three months and was fined two hundred sums, saying, "You have added and claimed! He killed him with drunkenness. "They found trouble again, gave him a white blessing, and sentenced him to three years in prison. Who did this? Did he make two hundred rubles? " says (Ibid., p. 218).

Hamza's skill is that he reveals the spiritual and moral landscape of the society by telling people like Mastura, Mirzarayim, Guljon, Norboyvachcha about his deeds. It shows how morally degraded people are due to ignorance. In an environment of ignorance, ignorance is on the rise, self-interested people are turning religion into a means of subsistence, human rights and freedoms are being trampled on, and women in particular are suffering. The second act of the drama "Secrets of the Paranji" shows the debate in the house of Tolaho. Umrzaqboy wants to give his daughter to a guy he doesn't know. Tolaxon does not agree. He intends to persuade his aunt, mother, brother Tolakhon. Her aunt cheats, her mother begs, her brother tries to scare her. Did they write on Tulakhan's forehead, "Let his parents give him that"? "Do not utter such blasphemous words!" (Ibid., p. 222). Tolakhon dreams of marrying Rustambek and living happily. He will try to achieve this. But he falls into the trap of cunning like Mastura. Norboyvachcha destroys Tolaho's dreams ...

Rustambek is a poor guy. So his mother said to Tolakhan, "Do you want to touch the beggar? Your father is one of the country, he took nine out of at least five hundred places and wore a fur coat. Will he sell his beggar mother's cocoon basket and get a wife? Let him anoint the ear of the pot on Wednesday and Thursday until he is still married! " they beat. Tolakhan's aunt said, "Now, sister ... What's the point of asking that?" When you have your own daughter, tie her hands and feet like a mold ... I answered by her side. Go out and tell your husband to do it! " he says. Umrzaqboy said to his wife: I'll cut the meat into six pieces and sell the butter to the soap, you know! " (same source. p. 227). His brother said to Tulakhan: "I will tear your belly and bury you in a shroud, you know? .. Say" G'ing ", I will suck your blood like shin! Did you know that the Shari'a gave parents the right to sell a child! I will put straw in the skin and take it to the Koktonli cemetery "(Ibid., P. 231). Faced with such atrocities, Tolakhan said, "O God, why did you create women if you did not give them a place like a flying bird?" he cries. But no one hears his moans. The third act of the drama is a series of adventure-detective works, which reveal the ugliness of the environment in which human rights are violated, and the crimes in it. Obviously, if freedom and dignity are trampled on, everyone will be dissatisfied, and everyone will protest. Because man is a conscious being. He puts his will, his dignity, his pride above all else, and fights for it. Tolaxon also rebels against the atmosphere of violence and decides to run away with her beloved boyfriend. But he can't reach his goal. He becomes a victim of an environment where human freedom is trampled. The events in the drama become an integral continuation of each other, depicting the tragedies of a society mired in ignorance as a result of ignorance.

In 1915, Mahmudhoja Behbudi's article "Defects that gnaw at us" was published in the magazine "Oyna", in which he said: Or tuberculosis, tuberculosis-ar-riyau (lung disease), leprosy? No, it is worse and more painful, it is a pain that destroys, destroys and destroys, we, the Turkestans, have invaded the city and the countryside to our semi-cultural, semi-savage classes, and our whole life has been plunged into crisis. and a wedding that leads to hell, I will cure two murderous enemies in the name of azo "(Behbudi M. Selected works. – T .:" Manaviyat ", 1997. – 232 p. – p. 145). The image of Tolaxon's parents draws attention to this flaw. Tolakhan's mother said, "Both you and I ate the bread of the land, and you wore a cloak. I got a chitu scarf. Agree to take the rent from the blessed six. Otherwise, I don't have a daughter left in the madhouse. "His father said to him," What are you talking about? I will give my daughter to my poor son. Does it hurt to give ten more? " he says. It turns out that the parents want to exchange their daughter for money and give it to a rich man's son who has epilepsy. In the dramas of Mahmudhoja Behbudi, Hamza, Abdullah Avloni,

similar defects caused by ignorance are covered. Due to the narrow-mindedness of Tolakhan's parents, he gave his daughter to a "crazy, helpless" girl and tried to extort a lot of money from the groom's father, have a luxurious wedding and gain prestige among the people. The girl's parents are not interested in her child. They don't even think about their daughter's happiness. His mother said, "What can I do? Otherwise, let me throw my daughter into the lake like a flower! Honor is harder than death. I was the only one who said, "I'm dead." "I cried for five or ten years, and it was as if I had never seen it." The mother wants her daughter to be just like her. Because he imagines happiness that way because of the narrowness of his worldview. Tolakhan's mother knows that a woman's happiness lies in getting used to everything and obeying her husband. But he also feels that he is doing injustice to his daughter. Like me, my daughter will watch one day. She rubs herself and comforts herself as if her black head was healthy. "Woe is me, my daughter's life is full of sorrow."

Full ignorance rebels against the environment immersed in the swamp of prostitution. "On the day of the show, the elders and imams of the hypocritical mahalla, who kicked Kumushkhan out of the mahalla because he was unclean, a palon, a pismadon, came to the cradle wedding today, shaking their beards, limping the soup, hitting their throats and wearing tunics. It exposes the greed and selfishness of the clergy "(Ibid., P. 226). About his brother: "One rich man took two, my brother, such a beautiful woman. Night and day he is not free from alcohol and he is not free from drunkenness. " As for his parents, who tried to force him to marry her, he said: "Let people see the presence of the wedding, the honor of my parents, and I see the suffering ?! What a pain to be a husband! " he says. Tolakhon dares to run away with his beloved Rustambek because he can think like this. He would have obeyed the wishes of his parents if he had not been able to reflect and analyze the events around him.

The third act of "Secrets of the Paranji" consists of the life of Mastura Yallachi and his contemporaries. It depicts the suffering of women whose rights have been violated. From the words of the hired women, it is clear that the society is spiritually and morally rotten from within. When one of the hired women said that his wife had poisoned Matqosimboy, Oynisa said, "Let's knit a crooked stick and turn around. Did God create us to enter the grave directly from the womb of the Holy Mother ?! " he says. It is the cry, the protest, the rebellion of women in grief over the oppression of their husbands. Ignorant people oppress and oppress others. Ignorance, on the other hand, results from disregarding others, from feeling superior to others. Norboyvachcha, Tolakhan's father, looks down on women because his brother is ignorant and does not think about the fact that they also have hearts and dreams. Such an attitude, of course, pays off. That is, if the husband does not respect his wife, the wife does not respect her husband either. Because honor cannot be achieved through intimidation, violence. Respect is associated with emotional feelings. The human heart is very delicate. He does not accept pressure, violence. The heart is satisfied only with kindness. Like Tolahan's father, he lacks enlightenment and cannot find a way to his son's heart. Her daughter doesn't respect her either. That is why he says, "My Father is a creature of God like me."

Tolaho's mother loves her daughter, not hates her. She wants her child to be happy as a mother. But his worldview is narrow because he lives in an environment dominated by ignorance. She doesn't count on her daughter's heart, her dreams. The money, sarpo, and things given by the rich groom are important to Tolaxon's parents. Therefore, when Tolakhan protested, his mother said to him, "It seems that a believer will take a blessing wedding for a hundred soums and our faces will be black. A, juvonmarg, what happened to you? "Her aunt also thinks so because she is a man of a suffocated environment, she knows that her nephew's happiness is in touching the son of a rich man, even though he has epilepsy. So let's give it to a man. Let your friends be happy, let your enemies be happy, and let your parents and relatives be happy, "he said.

Mahmudhoja Behbudi called lavish weddings and mourning ceremonies "vices that destroy our nation." He noted that the same defects are worse than ulcers, tuberculosis, leprosy. Because not only one person, but all members of the household suffer from the rituals associated with the wedding, za, not for a month or two, but for years. The desire to attract attention and gain prestige by holding weddings and mourning ceremonies is ingrained in the blood of our people. This vice, which has become a national mentality, is deeply rooted in our lives. At the beginning of the twentieth century, the Jadids opposed these vices that were destroying the nation. But many of us still dream of having a luxurious wedding. They strive to build a sill to achieve this dream. Those who are not afraid to earn money through filthy ways turn wedding and mourning ceremonies into a kind of "competition". Others are jealous of them so as not to be left behind. The dramas of Abdullah Qadiri, Abdullah Avloni, and Hamza cover conflicts over weddings and mourning ceremonies that dry up the nation's silos, and show that our people are mired in heresy. Even when we look at our current way of life, it becomes clear that the perception of our compatriots about life is not much different from that of our ancestors who lived a century ago. Our weddings and mourning ceremonies are proof of this. There has been no significant change in the worldview of our people on this issue.

First of all, the clergy and ambitious rich officials are to blame for the deep-rooted defects in the minds of our people related to weddings and mourning ceremonies. Our people have always listened to them

and learned from them. It was these leaders who sought to make a name for themselves by holding lavish weddings and mourning ceremonies. Therefore, in Jadid literature, officials such as imams, judges, mullahs, fifty heads, and commanders are portrayed as negative characters. In particular, Hamza's dramas play a key role in showing their characters. They pay special attention to the fact that most of the judges, mullahs, imams, rich officials are selfish, ambitious, violent people. This is what defines the idea of the dramas "Secrets of the Paranji", "The Case of Maysara". One of the characters in the "Secrets of the Paranji" Oynisa said: my lord's eyes fluttered. all the tora bachchas were wearing their shawls and watching Tolakhan. Fans ruin a party for a party "(Ibid., P. 215).

The content of the comedy "The work of the former judges or Maysara" is determined by the show of the greed and moral depravity of the leaders of the Sharia. Created in 1926, the three-act comedy highlights the shame of those who "entertain" and insult women in the name of their own low desires. Qaziqalon, who is over the age of the Prophet, tries to seduce his son Hidayat Khan, the judge's aunt Mulla Ruzi, the shepherd's wife. Maysara deceives them by covering them with goat skins on Hidayat Khan, cow skins on Mullah Rozi, and tying the judge to a cradle like a baby. More specifically, the judge, his son, and his assistant are in a ridiculous situation because of their domestic disorder. The judge's servant, Mulladost, said, "My sincerity has returned like a leaven from the lepers called 'Ulama.' Satan is the crimson governor in front of them. This is the situation when he enters the people again, tears welling up in his eyes, and he says, "Whoever is not afraid of the Lord, he is a worthy hell." I don't know what other creatures will go to that hell but themselves. " says (Ibid., p. 167). Because he sees with his own eyes all the ugliness of the judge and those around him. Mullah Rozi said that a week after Judge Haqnazar married the daughter of the Yasuvul chief, he divorced his wife for sneezing in front of her. The poor woman has been living her life for eleven years without touching another place. The mullah says the judge married two hundred and eighty-eight women and became a widow. Mullah Rozi, the judge's assistant, joked, "You can't enter God's paradise dry ... "Everything will be fertilized." The mullah said to him, "When he has done his deeds and given his alms, my God has folded the Shari'ah in two, in six layers, and placed it in the armpits of great people. Whatever you do is up to you. We, on the other hand, are among the misguided people who say, "Mulla dew, you are the one who makes us white and the one who makes you blue. You are our helper in both worlds." In "The Case of Maysara", all the characters speak sarcastically, sharply, pitching to each other. Phrases that reveal each other are poured into their language, proverbs, phrases have a funny meaning. Being the closest person to the judge, Mulladost uncovers his secrets and "peels off" his skin. Maysara's Case becomes a real comedy thanks to the same hero. Every action of the mullah, especially the words, involuntarily evokes laughter. His words are not just humorous, but profound, deeply meaningful. For example, Mulladost said about the greed and bribery of the judge and his entourage: "If there is no salt in a donkey, it will lie down. In the name of learning, the bismillah of everything in the world is that people who say, "I am free from this" are not people of this world! " he says. When he says, "In the name of learning, this is the Bismillah of everything in the world," he is referring to money, bribes. The scourge of bribery and greed has not been buried in the past. People have got rid of infectious diseases such as measles, smallpox and plague in the past. But humanity is still suffering from the selfishness, ambition, greed, and moral depravity that have plagued it since time immemorial. Even today, many problems in life are caused by this "ancient disease."

The essence of the comedy "The Case of Maysara" is determined by the fact that those who look down on women, in the end, will be disgraced in the country because of their inferiority. When Maysara turned the judge and his relatives into cows, goats, and babies, he said, "How are you, you squirrels! Who can tell you that women can't do anything! We are also human beings ... Are you still the guardian of the Sharia! A thousand curses on you! " he says. The judge's fifteenth wife, Nodira, slapped him in the face, saying, "Yes, let your hand be blown away, let your beard rot in the grave, for two years you have made my life red." The shepherd said, "Tfu, filth! You're still looking at someone else's harem with so many wives. A thousand curses, a hundred thousand curses! " he spat in the judge's face. Such an attitude does not arise spontaneously. Those who pretend to be religious, the leaders of the Sharia, are so hated by people because of their depravity and greed.

Not only in Hamza's works "Poisonous Life", "The Case of Maysara", "Secrets of the Paranji", but also in the dramas of writers such as Fitrat, Abdullah Avloni, the main role is to expose the greed and immorality of officials such as judges, mullahs, fifty heads, commanders. Because they were engaged in the lowest affairs, causing ignorance to flourish in the country. Judges and conquerors have resorted to bribery and have devised various cunning sharia laws to justify their evil deeds, and they have taken advantage of greedy officials to protect the interests of the rich. That's why in the comedy "The Case of Maysara" the shepherd said: "I did not understand anything. The judges, ishans, khans, governors, sayyids, tora, lords, caliphs, zokir, saints of the country called Shari'a are all those who frighten us with treachery, humiliation, prostitution, oppression, cruelty, and the wrath of the Creator. . God has nothing to do with them but to give them state and

happiness. All the hardships and calamities of the world are upon those who are afraid of evil like us at all times. He says. In the works of Fitrat, Cholpon, Abdullah Qodiri, Hamza, in the articles and dramas of Mahmudhoja Behbudi, Abdullah Avloni, the sad situation in Turkestan is described, and people are plunged into a swamp of ignorance due to lack of enlightenment. In "Poisonous Life", "Secrets of the Paranji" and "The Case of Maysara" the moral theme is embodied in social problems. He connects the love conflicts of Hamza Mahmudkhan and Maryamkhan ("Poisonous Life"), Tolakhan and Rustambek ("Secrets of Paranji"), Shepherd and Aykhan ("The Case of Maysara") with social problems and presents their tragedy and suffering as the pain of the nation.

Works such as "Padarkush" (M. Behbudi), "Is Advocacy Easy" (A. Avloni), "Secrets of Paranji", "The Case of Maysara" show that literature is a unique mirror of life. Because they focus on existing problems in marriage. The importance of these works is primarily determined by their feature. They keep us informed of the tragedies of the environment in which human freedom and rights are violated.

Hamza has written plays for the Kokand theater troupe, which has been operating since 1915. His 1915 drama The Poisonous Life or Victims of Love was Hamza's first step in this field. After this drama, he created plays such as "Vengeance," "Autonomy or Autonomy" (1917), "Who's Right?", And "The Servant with the Rich" (1918).

The drama "Poisonous Life…" was written in the spirit of direct enlightenment, in which the idea of "New Happiness" in the "national novel" leads. In "New Happiness", the young Alimjan makes the family of Abdulkahhor, who was scattered due to ignorance, happy through knowledge and enlightenment. In The New Happiness, Hamza focuses on another important issue - the belief that "God can give" (which Hamza includes in the phrase "corrupt beliefs"). According to this belief, which is instilled by fanatics, people act like "if you give, I will eat, if you hit, I will die" and do nothing. The author sharply exposes such baseless beliefs: "It is the baseless words and corrupt beliefs of our ignorant ancestors that God can give. God is not unjust, He does not give to anyone, He does not give to anyone. God has repeatedly stated in His Word that happiness and bliss are in knowledge, and corruption is in ignorance, and that every action is in accordance with the actions of the servant.

In the drama, ignorance, backwardness, bigotry lead to the tragedy of Mahmudkhan and Maryamkhan, the devotees of knowledge, enlightenment and progress. This four-act tragedy was written in 1915 and published in 1916 in Tashkent in "Matbaai Gulomiya" by Saidnosir Mirjalolov (1884-1938), a well-known enlightener, a close friend of Hamza, a wealthy merchant. The author defines the genre of the work as "the tragedy of the bride and groom from the life of Turkestan."

The protagonists of the work are Maryamkhan and Mahmudkhan - advanced intellectuals of their time. They live in the embrace of great dreams, such as the enlightenment of the children of the nation, with romantic fantasies, and their love is also extremely pure and sincere. The playwright pays special attention to the image of Mary in the play, all his views are reflected in the image of Mary rather than the image of Mahmud. It is true that Mahmudkhan's contribution to Maryamkhan's achievement was great. It was Mahmud Khan who led him to the path of enlightenment. This is the purpose of Maryam Khan's life, the main purpose of his life: let us warn each other by writing in the newspapers about the condition of our lands, the condition of our oppressed families. Let's open a girls' school, which is your real goal, let's be spiritual, you may be in material service, let's raise the priceless markets of our worthless nurses. Let us live in truth, let our future generations go to our graves, let our husbands sprinkle white and red flowers on your graves, let our daughters recite the Qur'an, and let our souls perform a service to the applause of our souls. I leave in your memory a shameful and disgraceful death in the presence of our Master and Apostle! So, let the dream die, let the nation, let the humanity die! "

The two young protagonists of the work, the decisive forces of the time of Mary and Mahmud, fight against the fanatics (they were the decisive force at the time the work was written). The struggle between the parties rises to the highest point: their lofty dreams of the future are shattered. As a result, helpless young people commit suicide as a rebellion against the existing system, feudal order, ignorance, bigotry.

For a long time, the search for class in all of Hamza's works and the approach to the events and protagonists of each work from a class point of view prevailed. This situation influenced the evaluation of the drama "Poisonous Life…". It is true that Mahmudkhan belonged to the rich class, and Maryamkhan came from a very poor family. These two young people are fighting for the future of the nation, regardless of what class they belong to. They are united by great goals. That is why Hamza evaluates the heroes of the work according to their human qualities.

The tragedy of the "victims of poisonous life or love" should have stirred in the hearts of readers or viewers feelings of love, compassion for Mahmudkhan and Maryamkhan, the bigotry that led them to tragedy, hatred of ignorance. To do this, the playwright skillfully used the opportunities of the tragedy genre, the charm of the art of speech. This is more evident in Maryam's active actions, in Mahmud Khan's mono-logs. In Mahmudkhan's monologues, the sentimental spirit is so strong that it shakes the listener's heart. Mahmudkhan's monologue before his

death serves to reveal more fully the essence of the tragedy: "Maryam, Maryamkhanim, I will not live in the world! .. Last night Maryamkhan was a victim of love, today we are victims of humanity, nation! Worldly ignorance, worldly ignorance. Horror! Death is a pleasure, a pleasure to live among such a cruel people! This kind of cruelty, cruelty! Better a poor horse than no horse at all. Better a poor horse than no horse at all. Better a poor horse than no horse at all. Better a poor horse than no horse at all. Death! .. Oh, the soul of Mary! Oh, ignorance! Wow, Islam is the only name left!

The same sentimental spirit was the main vehicle in which the drama penetrated the heart of the spectator. That is why this drama has been repeatedly staged by amateur drama groups in Tashkent, Kokand and other cities. This drama attracted the attention of the first Uzbek professional theater critic Mirmulla Shermuhammedov (1886–1923). He congratulated the Uzbek theater on its "new life" thanks to Hamza and his drama "Poisonous Life".

The comedy drama "Autonomy or Autonomy", written in 1917 in connection with the emergence of the idea of Turkestan autonomy, plays an important role in a clear picture of Hamza's political views, his attitude to the autonomy of Turkestan. The February Revolution of 1917, the collapse of the Romanov dynasty, gave wings to Hamza's aspirations for independence, as did all modern thinkers. The leaders of the Jadid movement, Munavvarqori Abdurashidkhon oglu and Abdulla Avloni, founded the Shorayi Islam Society in March 1917. The Central Council of this society included such political figures as Mahmudkhoja Behbudi, Mustafa Chokaev, Ubaydulla Khojaev. From the summer of this year, the Bolsheviks became more active, and the fanatical clergy split from the Islamic Council under the name of Ulama. This separation later came in handy for the Bolsheviks, who helped the colonialists in crushing the Soviet Islamists, who were fighting for independence from the Ulema Society. Branches of the Shorayi Islam and Ulamo societies have also been established in various cities of the country. As a result of the February Revolution, there were sharp disagreements between these societies over how to establish a state in Turkestan. Hamza based the meeting of the Kokand branch of the Ulema Society on this drama of "Autonomy or Autonomy." The author summarizes the plot of the drama as follows: "The loss of clerics in the conflict between young people and clerics on the occasion of freedom in Turkestan is a reflection of the clerical assembly."

In this case, the youth - members of the society "Shorayi Islam", ie Jadids; It is obvious from the beginning to the end of the drama that the scribes and fanatics are members of the ancient Ulema community. The author of the work reveals in his own words how ugly, naughty and lowly the scholars who have taken over the destiny of the country are. They can't even imagine what a state system of autonomy, autonomy is: "L. (teacher): This democratic republic has done us a lot of harm. After all, we will not have a king, as before, judges and teachers will be elected by judges and governors. Second, there will be decrees for women to go out on the streets without a veil (holding everyone's collars, "Astagfirullah!" "Navzanbillah! .."). Well! Iftar, wedding, zakat, charity are all pure! .. »

F. (teacher): Didn't I tell you that this man is also a treasurer, or a little comb, and now we are joining the Jadids in this perverted, misguided Tatar way of life! Bale! "

Prior to independence, contemporaries regarded the drama as a "disgrace" to the Kokand autonomy, exposing its "reactionary nature." In fact, Hamza exposed the ignorance and short-sightedness of the members of the fanatical "Ulama" society, which carried out acts of sabotage and treachery against the Jadids, who took an active part in the establishment of Turkestan autonomy. The first letter of the names of the heroes is given in the play. Due to this work, Hamza was persecuted by the Ulamo society and from October 1917 to March 10, 1918, he lived in hiding in the house of his friend Saidnosir Mirjalolov in Turkestan1. Thus, on November 27, 1917, the day of the proclamation of Turkestan autonomy, Hamza welcomed the city of Turkestan and wrote the poem "To the autonomy of Turkestan." The poem was published in the January 11, 1918 issue of the Ulug Turkiston newspaper. In the poem, the poet congratulates the Muslim nation on the great holiday and urges them to unite under one banner:

Now unite, Islamic nation!
Let the Sunni, Shiite discord be gone!
Let the Islamic State gather in one fell swoop!
Congratulations on the autonomy of Turkestan!
Long live the Islamic nation!

The main idea of Hamza's work before the October Revolution of 1917 was enlightenment, during which time he used all the possibilities and types of artistic creation as a major representative of Jadid literature. Like all modern thinkers, he thought that after the February Revolution of 1917 all the work was done, the peoples of Turkestan were liberated from colonial slavery. In 1917, he published Kengash and then Hürriyet magazines. In the first issue of Hürriyet, Hamza's reaction to this historic event is clear: it also illuminates our goals. Today, the truth, the means of freedom, has freed the old traitor and tyrant, the tyrannical government, from the chains of life that have been insensibly tied to our necks, arms and legs for 50 years. On this day, on the one hand, the oppressive officials, on the other hand, the ruthless, ruthless robbers, with their iron skins, their skins are crushed, their hearts are crushed, and the eagles of the oppressed, the unjust, the poor, the orphans, and the strangers. … This day is the most precious, the most spoiled day! On this day,

Ostroumof, who lived under the tutelage of Ilminsky and served his profession, sat in the realm of the betrayals of the traitors of the religion who came from among us in the homeland. He will humiliate and disgrace the unjust.

Of course, Hamza's bold remarks against the colonialists did not please either the Provisional Government or his allies in the country, and both magazines were shut down one after the other. Hamza's drama "A Piece of the Secrets of the Paranji or the Case of the Hirelings" and the comedy «Former Judges or the case of the Maysara» created in the mid-1920s had a strong influence on the development of Uzbek drama and theatrical art. On February 27, 1926, Hamza was awarded the honorary title of "People's Writer of Uzbekistan."

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THE ROLE OF TEMPERAMENT IN THE FORMATION OF INDIVIDUAL AND DESTRUCTIVE INDIVIDUAL RELATIONSHIP STYLE

Abstract: This article describes the role and characteristics of temperament in the formation of individual and destructive individual relationships in the family, the formation and manifestation of destructive individual relationships in different temperament types, consequences, the role of destructive individual relationships in the destruction of family relationships.
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Introduction

We often hear people everywhere, demanding that those around them always lose their negative qualities and display only positive ones. But how to become the "most positive person" is making many wonder. In order to become a "positive person", it is important to distinguish between "negative person" and "positive person" and the difference between them. In our view, this is very important in interpersonal relationships. From a psychological point of view, ... there is no such thing as a "negative person" or a "positive person". Positive and negative qualities are human, but in man they are mixed. ... "is more accurate. So how does this mixture form in it? Does it have any criteria? It is natural to ask.

Based on our research on the destruction of interpersonal relationships in the family [11,12], we came to the conclusion that it has both hereditary and social bases. The Uzbeks say, "When you dig, you dig." Proverbs such as, "If you see your mother, take your daughter!" such proverbs as the formation of the child's behavior and character of the mother's upbringing shows the social impact. In our view, destructive relationships stem from a destructive personality. The formation of a destructive personality,

on the other hand, has a deep root. To be more precise, a person cannot become a destructive person in an instant. Destructive personality is formed as a style of destructive individual relationships.

The style of individual relationships does not arise spontaneously in a person, it is formed at all stages of personal development, that is, before the birth of a child and from kindergarten age to the acquisition of professional skills. A person's temperament shapes a person's individual relationship style. For the same reason, an individual's relationship style is understood as an individual system that is unique to the individual and the purposeful ways to achieve success.

According to G.Yu. Eisenk's analysis of typological features of personality, the analysis of typological features of personality is often used to describe the psychological characteristics of people with destructive behavior. In the research of O.P. Gnidin, a correlation between the level of destructiveness with the indicators of neuroticism and psychotism was identified, and the relationship with the indicator of extraversion-introversion was not identified. These results are consistent with data on neuroticism and high levels of psychoticism in individuals serving sentences for selfishness and

violent crime [2, 3, 4,], and no data on the positive effects of psychoticism on students 'destructive behavior.

A unique set of temperament traits is manifested in the process of individual style of human relationships. The individual style of attitude depends not only on temperament, but also on other factors, the communication skills formed in the process of personal development. The individual style of attitude can be thought of as the innate characteristics of the human body and the adaptation of the types of the nervous system to the conditions of activity, just as the individual style of activity. More precisely, the basis of the individual style of attitude is the sum of the characteristics of the nervous system and the attitude formed in the educational process.

There are two different characteristics that go into an individual style of relationship. The first is the features formed due to defects in the individual characteristics of the nervous system. The second is the features that allow a person to make the most of the communication, abilities and skills available to him. The characteristic of temperament is not in the effectiveness of the relationship, but in the specificity of the relationship styles.

In this sense, according to our research, people of any temperament type can also succeed in relationships. It has been found that people with opposite characteristics according to temperamental mobility resort to different movement tactics in the same attitude situation. Choleric people gain people's respect with their activity, quick-wittedness, aspiration, and reliability, while phlegmatic people gain their place with their intelligence, intelligence, and organization. Similarly phlegmatic attitude style negligence, when it comes to negligence, melancholy often uses kindness, dependence, etc. to keep personal relationships positive.

"Individual style of relationship" is a style of "positive", "negative" and "average" relationship, which is naturally conditioned by each individual, strengthened by the influence of education. The "positive" style of interpersonal relationships is an indicator of a person's biological perfection, protection, satisfaction of needs, upbringing in a positive spirit. In the psyche of those who prefer the "positive" style of interpersonal relationships, such qualities as tolerance, gratitude, contentment prevail. The "negative" style of interpersonal relationships is characterized by low social maturity, spiritual poverty, negative emotions, dissatisfaction with relationships, selfishness, inability to see. People who have a "moderate" style of relationship tend to act according to the situation, often behaving politely, being polite, polite, and not overly influenced. However, he may also struggle to defend himself when necessary.

A person's temperament is a key characteristic of an individual. Because of this, we decided to study the style of individual relationships in relation to temperament characteristics. The issue of human individuality has always been the object of constant study of psychology. Individuality (Latin "individium" - indivisible, individual) - a set of characteristics that distinguish one person from another; the psyche and personality of the individual; is a unique aspect of spiritual, physiological and personal qualities. Individuality is manifested in such qualities as a person's temperament, character traits, appearance, interests, abilities, perception of the world. Individuality is characterized not only by specific features, but also by the specificity of the relationship between them. A necessary condition for the formation of a person's individuality is, first of all, the environment in which he grows up, the experiences he gained in childhood, upbringing, family structure, characteristics and attitude to the child. In particular, psychologist A. G. Asmolov A. G. Asmolov has the idea that "They are born as individuals, become individuals, and protect individuality" [1].

In psychology, the term individuality is more commonly used to describe the following two phenomena: - individual psychological differences (individuality as a specific feature of a person's psychological characteristics); - hierarchical structure of human psychological characteristics (individuality as the highest level of this structure in relation to the individual and the person).

Individuality is manifested in different characteristics of character and temperament. Its basis can be seen in the habits of the individual, his superior interests, the qualities of the cognitive process, abilities, individual modes of activity. It is not possible to find two people with the same combination of the above characteristics, so a person is considered unique with his or her individuality.

Human personality and relationships are valued as one of the most important aspects of individuality. Therefore, the description and evaluation of individuality is difficult due to the lack of universal criteria, as there are different ways of evaluating each action and relationship. Different levels of assessment criteria are specific to different individuals. For example, one may call a destructive attitude an expression of stubbornness, while another may at the same time see it as a demonstration of commitment to principles.

Individuality is the pinnacle of human development. It is the best-organized system of all human traits, characterized by their harmonious combination, self-conscious management, self-development, creativity in various activities and personal life paths.

Well-known psychologist BG Ananev states that "individuality is a closed system built on the open systems of the subject, due to the interdependence of all its features." At the level of individuality, the mind acquires a new quality and becomes the inner world of the individual, which is relatively autonomous from the

external world. It is here that a person's unique work takes place that serves to understand the truth, plan life, and develop his or her strategy and tactics. Under the influence of a complex act of self-awareness in the inner world, a person's self-awareness and reflexive features of character, The nuclear structure of the "I" is formed. In the inner world of the individual, the spiritual formation of man takes place. If other forms of personality (individual, personality, subject with their attributes) are studied by other disciplines, individuality as an inner world is a specific and indivisible subject of psychology [].

The assessment of individuality in interpersonal relationships can be based on a simple and typological approach. According to the simple approach, individuality is the most stable feature that significantly distinguishes a person in different situations, while according to the typological approach, individuality can be considered as a stable set of personal characteristics. In interpersonal relationships, individual characteristics such as people's temperament type, control loci, accentuation (extreme strength of certain traits) stand out.

Thus, the concepts of "personality" and "individuality" cannot be considered the same, they only apply in the general field of defining an individual's individuality. Through individuality, the uniqueness of the psyche and personality is manifested, describing the socially significant difference of a person from others. Individuality can characterize both the individual and interpersonal relationships. Social components and between people using individuality at the individual level can express biological differences that may facilitate or impede the process of activity. This is especially true for people who deviate from "normal" development and exhibit abnormal individual characteristics.

Personality involves individuality, but at the same time it is social in nature because of the similarity of the personality with other people. Man is like all living people at the level of civilization, the culture in which he lives. Society has always valued and appreciates individuality, but sometimes it is perceived negatively. Individuality has its contradictions. On the one hand, it develops harmonious relationships with others, on the other hand, it prevents them. Both of these can motivate others to develop and stop independent activity.

B.G. Ananiev was the first in psychology to try to give a psychological description of individuality. There are several traditions of understanding individuality in psychology. Initially, individuality was seen as a specificity, a specific combination of personality traits with varying degrees of severity, but without exception is common to all. However, a clear feature is

hypertrophy, and in this context, the brighter the individuality, the closer a person is to the pathology. Therefore, such an understanding of individuality is to determine the vector of potential pathological personality changes [4,5].

Another notion of individuality has to do with the distribution of personality traits that are only specific, genetically related to certain random situations. In this case, individuality serves as a carrier of important features and qualities - a specific complement of personality, and is defined as a set of individual and personality traits that distinguish one person from another. At the same time, it should be noted that the formation of the style of individual relationships is also individual. The psychological content of individuality more fully expresses the concept of integrity than others. The results of a theoretical analysis of the nature of the various levels of interaction in the human structure and its experimental verification confirm this. At the level of the individual, the role of the quality that shapes the system, the natural characteristics of the individual functions within it, is realized by the direction of the individual. At the level of interpersonal relationships, a person's individual relationship style plays a similar role.

Interacting with each other, the individual style of a person's relationship provides a commonality at all levels, which is expressed in the unity of a person's personality and activity characteristics. This unity of the subject of personality and attitude is reflected in his successful labor, knowledge and communicative activity, which determines the specificity of his contribution to the public fund.

In fact, many are able to show all their potential, achieve the highest results in interpersonal relationships and make it as effective and creative as possible. But we are talking about very successful and productive people who are successful in doing this.

Maximum success in interpersonal relationships - the task of an important factor shaping the system - is to shape the style of individual relationships. A leading factor in a person's individual relationship style is the way in which the person's relationships are sought, found, and systematized according to the purpose, in ways that are relevant to the person's goals.

People of different temperament types have different character traits, personality traits, situations. A similar pattern of interpersonal relationships takes shape. The main goal of our research is to show the role of temperament in the formation of individual relationship style.
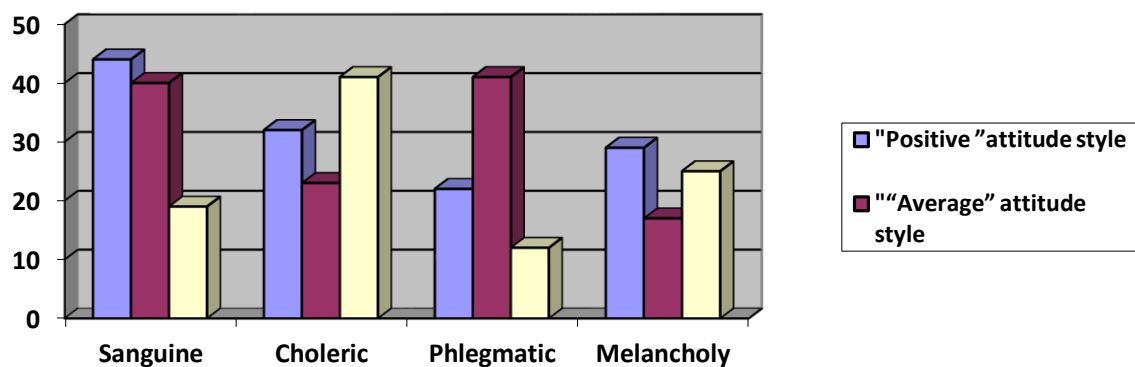
Based on our research, we came to the conclusion that there is a link between temperament and personality destructive relationship style.

Table 1. The relationship between temperament and personality destructive relationship style

Person destructive attitude styles / Temperament type	A "positive" attitude	"Moderate" attitude style	"Negative" attitude style
Sanguine n=103	44	40	19
Choleric n=96	32	23	41
Phlegmatic n=75	22	41	12
Melancholy n=81	29	17	25

Picture 1.

In particular, the style of individual relationships can be destructive if left unchecked, such as the high reactivity of the Sanguine-type person, his laughter at trivial things, and his outbursts of harsh anger at trivial facts. However, it is easy to call sanguine to discipline. They are able to quickly hold on to the manifestation of their feelings and their involuntary actions. Their minds work fast, they are resourceful, their movements are finally extremely smooth, their emotions, their moods, interests, and aspirations are highly variable. It is therefore important to identify the weaknesses of the sanguine first. Those who belong to the sanguine type are quick to get along with new people, learn new requirements, new conditions easily, move quickly from one job to another. their moods, interests, and aspirations are highly variable. It is therefore important to identify the weaknesses of the sanguine first. Those who belong to the sanguine type are quick to get along with new people, learn new requirements, new conditions easily, move quickly from one job to another. The mind is compact. Has the property of extrovert. responds to lower external impressions than his perceptions of past and future life. While positive attitudes predominate in sanguine, the instability of their interests in the formation of an individual style of relationship, as well as the lack of internal rigidity, are also mixed together. As a result, it is natural for some sanguines to have destructive relationships.

Choleric, like sanguine, is characterized by low sensitivity, high reactivity, and activity, but reactivity predominates over activity. Therefore, in the formation of an individual style of relationship, they include activity, agility, speed of mental temperament, ability to do something, alertness, initiative, openness, inability to behave, restlessness, restlessness, instability, nervousness. If a person in the choleric category is brought up properly in time, he is capable of great deeds, otherwise the tendency to destruction may prevail.

Phlegmatic - low sensitivity, low emotional arousal, difficulty laughing, irritability, mood swings. The formation of an individual style of attitude in phlegmatics occurs mainly on the basis of their indifference, indifference, diligence, completion of the work begun, carelessness, and so on. The fact that they do not disturb their peace even in the event of a major accident prevents them from avoiding destructive relationships. But this does not mean that they do not experience negative reactions, they are characterized by the adoption of drastic measures in the relationship if they are provoked by bad influences.

Melancholy - has a high sensitivity. Tears flow from his eyes for a sensitive, insignificant reason, extreme resentment, sincerity, as well as sluggishness, lack of self-confidence, shyness, the ability to wash his hands and slap his armpits when a little difficulty

arises, leads to the formation of a unique individual style in relationships.

From the results of the above research, it can be concluded that temperament characteristics play an important role in the formation of an individual's destructive style of individual behavior. However, it is not the only indicator that determines an individual's destructive attitude style, and also an individual's destructive attitude style can be positive, moderate, and negative in individuals with different temperament types. They are more common only in people with a certain temperament.

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QR – Issue   QR – Article

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PROSPECTS FOR INCREASING THE IMPORTANCE OF FINANCIAL MANAGEMENT IN ENSURING THE FINANCIAL STABILITY OF STOCK COMPANIES

Abstract: *In the article is considered the scientific problems and theoretical aspects of ensuring stock companies' financial stability. Scientific recommendations for improving financial stability have been formulated on the basis of the operating in the country stock companies' financial stability coefficients' analysis. In addition, using international practices, there are presented recommendations for improvement of company's financial stability assessment on modern models' basis.*

Key words: *financial stability, solvency, multiplicative ratios, risk assessment, financial stability monitoring, statistical models, innovation.*

Language: *English*

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Introduction

Ensuring the financial stability of joint stock companies is one of the key elements of a modern financial management mechanism. Ensuring the timely fulfillment of obligations by joint-stock companies, increasing additional investment opportunities and the widespread introduction of innovations in production processes play an important role in improving financial stability. In world practice, the financial stability of most large companies is largely determined by its solvency and the amount of available reserves. It should be noted that the introduction of modern financial instruments in the insurance market, diversification of insurance services, improvement of financial stability through the use of international best practices in the development of the insurance market remains one of the most pressing issues. It is no coincidence that we do not emphasize the issue of financial stability of insurance companies, because the main object of this paper is the issue of financial stability of insurance companies.

Various changes in the world economy in recent years have forced countries to make decisions about the use of different instruments in the management of fiscal policy. It should be noted that until recently, there was a reaction to the global financial and economic crisis that began in 2008, which had a serious impact on the world economy.

By 2019, the spread of Covid-19 disease, which began in China and then rose to pandemic levels around the world, has had a serious impact on the economies of many developing countries as well as developing countries. Of course, as a result of such processes of globalization and integration, countries will need to effectively develop a mechanism to ensure financial stability, taking into account external and internal factors that may occur in all segments of financial markets.

Main part

Since "financial stability" is a broad and multifaceted concept, its economic significance in the modern economic literature, the systematization and interpretation of descriptive valuation indicators are different and not fully explained. It is important to study the limits of methods of assessing financial stability in the activities of joint stock companies and

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the most effective use of their entire system, as well as their criteria, taking into account terminology, algorithms of indicators and their interpretation, ownership and industry characteristics.

It should be noted that the concept of "financial stability" is a broader concept than the concept of "solvency", and it should be noted that the indicators of solvency change faster than the indicators of financial stability. Economist A.V. Grachev connects "financial stability" with the ability to pay, considering it in terms of accumulating resources to meet its financial obligations for a specified period [4]. However, such an interpretation of the economic nature of 'financial stability', in our view, raises the problem of choosing between accumulating resources and reinvesting profits.

In general, in terms of ensuring the stability of the financial system, the Western economist M.Foot gives the following opinion, namely, financial stability: a) the stability of funds; b) the level of employment of the population in the economy; c) market agents' confidence in financial institutions and markets; g) the absence of price fluctuations with respect to financial assets [6]. "Financial stability" also means that the important elements that make up this financial system work together [7]. According to professors Ch.Friedman and K. Goodlett of Carlton University in Canada, determining the financial stability indicators of companies is a complex process, which does not allow to form a complete picture of the financial stability of a particular indicator. Therefore, along with the development of the economic system, the analysis of modern financial stability indicators is also improving accordingly. There is no clear mechanism for assessing financial stability, as changes in these indicators are in most cases directly influenced by the monetary policy of the state. In particular, the recent global economic and financial crisis requires a comprehensive study of these indicators [8].

Russian economist S.V.Kulikov considers the financial stability of an insurance company on the basis of two different approaches. In particular, according to the first approach it is (financial stability) "the presence of a fixed share of equity in the total amount of financial instruments", and according to the second approach, "the distribution and use of capital and profit growth to maintain the state of financial resources understood. The scientist added that there is no specific indicator or set of indicators that characterize financial stability, and in each case it is necessary to determine the range of indicators of financial stability in accordance with a particular situation.

According to N.Khasanov and S.Najbiddinov, financial stability is based on the assessment of the ratio of equity and debt to assets, the rate of accumulation of own funds, the ratio of long-term and short-term liabilities of the enterprise, the level of working capital [9]. According to A.Vahobov, N.Ishonkulov and A.Ibragimov, the effective formation, distribution and use of financial resources reflects the essence of financial stability [10]. According to A.U.Burkhanov, a scientist who has conducted research on scientific and practical problems of financial stability of enterprises in our country, financial stability is a complex indicator of enterprise activity based on profitability and debt repayment, the ability to finance its activities and the rapid development of resources [2].

Without ignoring the essence of the above research and relying on them, it must be acknowledged that the research on improving the financial stability of joint-stock companies operating in our country remains relevant. In this regard, it is important to study the practice of using modern models of financial stability assessment of companies in international practice, and to study this experience extensively, adapting it to our conditions.

Results and Discussions

Although the amount of a company's equity, the size of its assets, and its investment policy are indirect factors that affect its stability, the state of these financial indicators directly plays an important role in ensuring solvency and liquidity ratios. One of the important coefficients that characterize the state of financial stability of joint-stock companies is the indicators of their capital adequacy and crisis probability assessment. Accordingly, in the next part of the article we will analyze these financial stability coefficients on the example of Kafolat Insurance Company. In the process of financial analysis, several coefficients are used, which represent the value and amount of private capital of insurance companies. These are:

1. Coefficient representing the adequacy of private capital. This ratio shows the structure of financial resources and the extent to which the insurer's assets are secured by private capital. In the opinion of financial analysts and lenders, it is positive that the level of this ratio is as high as possible: private equity / total assets.

For insurance companies, the level of this ratio is 0.2 and above, and the determined result indicates that the company is operating in a moderate (normal) state. While insurance companies provide solvency levels at the expense of their own funds in the process of organizing their initial activities, in the subsequent stages of their activities, they provide them not only at their own expense, but also at the expense of insurance reserves. Accordingly, it is possible to ensure that the insurer has sufficient to cover its own funds. The assessment of its adequacy is given in the table below (Table 1).

2. The ratio of equity to liabilities shows how much the insurance company's own equity is higher than the amount of debt capital: private equity /

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liabilities. The minimum amount set for this ratio is 1, and the higher the result, the higher the solvency ratio, the higher the ability to meet obligations at their own expense.

Table 1. Quantitative indicators of the adequacy of private capital of companies [1]

№	Capital Adequacy Ratio	Evaluation indicators
1	< 0	Not enough
2	0 to 25% each	Normal
3	26 and 50% each	Good
4	51 and 75% respectively	Reliable
5	> 75%	High

3. The turnover ratio of private capital shows the turnover rate (periodicity) and efficiency of use of private capital of insurance companies during the analyzed period: total income / average value of private capital in the reporting period.

Depending on the trend of change in this indicator, shareholders can assess the effectiveness of the use of investments made by owners. In this process, not only the owners of capital but also the company can assess the efficiency of the use of capital formed in the course of its activities. In turn, if we talk about the marginal values of this coefficient, we can conclude that the higher the identified result, the more the insurance company has a development trend.

Conversely, as the value of this ratio decreases, the turnover of private capital slows down. In this case, the owners of capital will have to decide on a high return on investment in this area in another alternative direction.

4. The return on equity ratio of private capital reflects the efficiency of use of capital contributed by the owners of the company: profit before tax / average value of private capital in the reporting period.

The result determined by investors on this ratio allows to compare the income received by them by investing in alternative options or securities of other joint-stock companies. It should be noted that in the context of market relations, most companies carry out their activities through the formation of external funds in addition to their own funds. Of course, while the formation of additional resources at the expense of external sources increases the additional investment opportunities, it also leads to an increase in the level of risk on liabilities for the company. In our opinion, it is for insurance companies that it is preferable that the amount of private capital be higher than the debt obligation, ie the amount of private capital should be higher than the debt capital. It should be noted that the ranking of insurance companies is one of the main factors in the assessment of capital-related indicators in national and international practice, not the efficiency of the use of borrowed funds, but the amount of private capital. In our opinion, in determining the rating of insurance companies based on the concepts of financial management, it is necessary to introduce the practice of evaluating not only the amount of private capital, but also the effectiveness of the use of debt capital.

From the above capital adequacy ratios, we analyze the example of Kafolat Insurance Company (Table 2).

Table 2. Analysis of private capital adequacy ratios of Kafolat Insurance Company [2]

№	Indicators	2015	2016	2017	2018	2019	change (+,-)
1.	Equity capital (million soums)	35832,1	39919,3	43681,3	48504,9	55536,7	7031,8
2.	Total assets (in million soums)	75267,1	84601,1	107928,9	117260,4	165773,8	48513,4
3.	Liabilities (in million soums)	5254,6	6592,1	14248,5	11483,5	10965,7	-517,8
4.	Total income (in million soums)	44588,9	60275,1	70033,1	87957,7	108024,1	20066,4
5.	Average amount of capital (in million soums)	37875,7	41800,3	46093,1	52020,8	59065,05	7044,25

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[1] Author's compilation

[2] Calculated by the author on the basis of annual financial statements of the joint-stock company "Kafolat Insurance Company".

							Normal range
6.	Profit before tax (in million soums)	3063,2	3567,4	4306,1	4310,9	7160,4	2849,5
Appropriate coefficients							**Normal range**
7.	Coefficient representing the level of capital adequacy	0,4760	0,4718	0,4047	0,4136	0,3350	0,2
8.	The ratio of equity capital to liabilities	6,8191	6,0556	3,0656	4,2238	5,0645	1
9.	Equity turnover ratio	1,1772	1,4419	1,5193	1,6908	1,8289	economic growth
10.	Return on equity	0,0808	0,0853	0,0934	0,0828	0,1212	economic growth

It can be seen from the table that all the results identified by the joint-stock company "Kafolat Insurance Company" on the adequacy of private capital for 2015-2019 have a positive trend. As a general conclusion, it can be seen that the company has sufficient capital in the performance of its obligations and there are no problems in the performance of obligations on insured events.

It should be noted that the result of the coefficient of adequacy of equity capital in 2015-2018 was 2 times higher than the norm, but by 2019, the ratio decreased by almost 70% compared to the previous year. If we look at the ratio of equity to liabilities, this figure reached a high level in 2015-2016 and 2018-2019, and in 2017, liabilities tended to decrease as a result of almost 2.5 times the amount of private capital. The equity turnover ratio has been growing at the same rate over the years, indicating an increase in the efficiency of the use of investments made by investors. Similarly, the rate of return on equity, which is one of the key indicators in assessing financial stability, has a growth rate, and it can be concluded that the efficiency of the use of capital by the company is high.

Conclusion

Continuing the conclusions on the effectiveness of the joint-stock company "Kafolat Insurance Company", it is possible to cite the normative documents that are now accepted as external factors affecting the financial stability of the company. It should be noted that factors such as increasing the authorized capital of insurance companies, setting standards for the amount of insurance reserves are a strong source of protection of the interests of direct insurers, timely receipt of insurance coverage,

fulfillment of obligations by insurance companies. However, given that insurance companies are a major player in financial markets and one of the financial institutions with available financial resources, such restrictions and requirements may reduce investment opportunities and limit additional opportunities to ensure financial stability.

Assessing the financial stability of joint stock companies is one of the most important issues for all participants in the financial market. The financial stability of insurance companies is a process that is difficult to assess only within certain indicators. Although a normative and legal document has been developed to assess the effectiveness of joint-stock companies with a state share in the charter capital, the provisions of this Regulation do not apply to commercial banks and insurance companies.

In our opinion, in assessing the efficiency and financial stability of insurance companies, a Regulation based on international standards and the methodology of calculation of international rating agencies should be developed and implemented. As a result, along with the development of a competitive environment among insurance companies, there is an opportunity to further increase the attractiveness of investors.

Effective organization of the financial stability monitoring mechanism of joint-stock companies will allow minimizing the level of lost opportunities in achieving the company's strategic goals, econometric forecasting of financial stability, assessment of financial risks. Based on the experience of international practice, the introduction of "due diligence" in insurance companies serves to ensure the transparency of information, as well as to assess the company's future investment opportunities.

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QR – Issue   QR – Article

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FOLK GAMES SERVES AS A PSYCHOSOCIAL DEVICE

Abstract: The article describes the role of the developing function of folk games in the mental development of a child, based on the material of Uzbek folk games "Beshtosh (five stones)." The study showed that folk archaic games (including playing with stones) are one of the generalized forms of historically established social experience, presented in the form of plot-role-based and symbolic content, as well as the systematic conduct of playing with pebbles is very important for the formation of sensorimotor coordination and operational skill. In folk games, the history of the child's assimilation of the cultural (social) experience of past generations is presented, thanks to the mechanism of generalizing the plot of the game, a symbolic game that reflects real life into a rule. The outgoing folk games should return to children's society and become a powerful means of enriching the mental development of a modern child. And also, based on the results of the study, an important point for the personal development of children is the various rules and content laid down in this game during its historical development, depending on the attitudes and traditions of the original ethnic environment, and the socio-cultural value of folk games in modern society is their significance for the formation of basic ethnopsychological personality traits.

Key words: amplification, game activity, folk games, game «Beshtosh», coordination of movements, sensorimotor coordination, socio-cultural value, society, symbolic game, operational skill, cultural and social experience, gymnastic effect, training, yoga.

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Introduction

Methodology. The issue of enrichment (amplification) of the child's mental development was for the first time delivered by the outstanding child psychologist A.V.Zaporojets [8:78]. He determined that the amplification of mental development opposes the increasingly asserting reality of childhood deprivation, that is, the impoverishment of the conditions and content of the child's mental, physical and socio-moral development. The concrete implementation of this direction in the theory of psychology and the practice of education can bring us tangible results. Significant materials regarding many types of games are given in the scientific works of the following psychologists: L.F.Obukhova, V.S.Mukhina, S.L.Novoselova, A.S.Spivakovskaya, E.E.Kravtsova, E.V.Zvorygina, N.N.Palagina, N.F.Komarova, V.A.M.Grigorieva and S.V.Grigorieva. Furthermore, these games, especially

folk ones are considered to bring breakthroughs in developmental, re-habilitating and educational growing of the offspring. Our research conducted on the basis of Uzbek national games convinces us that these games like the games of other nations have a powerful child-developing potential. They enrich children's mental processes and personal identity in ethnos they live in. As S.L.Novoselova noted that folk games and, in particular, the most ancient of them (archaic) enable the offspring to adapt to their canonized (ritualized) content and the concept of life in human society. Archaic games appeared and played in centuries long before the emergence of ancient and medieval civilizations have survived hither to our modern time in the playing repertoire of many nations differing in ethno-cultural traditions. Playing with pebbles can be the salient example of this phenomenon. These games differ to people living in different geographical places, we have studied them in

details in the following research. Sometimes the researcher of these games is faced with a dilemma: is the spread of pebble games a secondary, concomitant phenomenon in relation to the spread, for example, of Turkic influence in Central Asia, on the Anatolian Peninsula, on the land of Bulgaria, Hungary and Yugoslavia, as well as in the south of Russia and in the Volga region or this game came to the peoples of Eurasia, including the Turks from the Late Paleolithic of the Early Neolithic. The remains of a Neanderthal boy identified with the Mustien era of the territory of the Sherabad district of the Surkhandarya region of Uzbekistan clearly speak of how ancient the history of civilization of those places where we conducted our research of the Uzbek folk games.

Folk games have been passed down from generation to generation; their origins are highly in need for further exploration and elaborate investigation. Currently, it is not yet possible to recreate their historical genesis, which goes not only into the darkness of centuries, but also millennia. Now we can only agree with V.I. Kochetkova [1:223] that the psyche of a modern type of person is associated with the ability of the brain to create generalizations of a higher level than elementary concepts, so that special means of labor arise. In addition, possession of them also required a high development of brain regions, which were finally formed only in late neoanthrope types

From this point of view, archaic folk games carry in themselves what is necessary for a child at play to develop specifically human abilities, modes of action, equipped with one or another tool (from a rattle to a computer).

Folk games (traditional, archaic) provided both ancient and modern people with the development of the necessary techniques of objective activity, the corresponding qualities of thinking and social adaptation.

Results.

S.L. Novoselova writes that the popular archaic game is a tool to transfer contentof society, constituent human qualities of thinking, motivation of activity, operational cultureto playing child of these games. He based on several researchers, as well as on materials from the works of Z.B.F.Kontautene, L.F.Obukhova, K.O.Montenegro.

These universal features in the traditional games are always passed on to the children in peculiar, sometimes unique ethnic "packages"

One bright example of this is "Beshtosh" (five stones). It is characteristic of the ancient Uzbek gaming traditions and reflects generalized game rules of the ethnic experience of human interaction in society. Features of ethnic influence on the content and rules of the game, its later acquisition, interpreted, as S.L.Novoselova writes, the universal human through the national, communal, family. Ethnicity

enriches the play of a modern child with a reflection of the historical experience of the people.

The folk games that have come down to our times, as the study showed, naturally passed through the flow of history and generalized in their rules, characters, means, ways of playing action, such features of the content that can introduce children playing into the society of adults sufficiently developed in terms of the motor sphere, sensorimotor skills, object mediation, thinking from the visual-figurative to the reflective theoretical and social customs of the ethnos.

On the other hand, despite their bright child-developing essence, folk games are being superseded by the latest role-playing, computer and didactic games. These latter games, state-of-the art games cannot replace folk games, since they do not have that level of generalization, information, didactics which are inherent in folk games. The fact that Uzbek children, like Russians, do not know folk games testifies to the dangerous trend for the psychological and social development of children to displacement from the system of education means those that form in children not special, but universal qualities of the mental make-up of the personality. The departure from the everyday life of children's games of folk games is one of the main reasons for the deprived, flawed development of the modern childhood. And, conversely, the introduction of diverse folk games into the daily life of preschoolers can become a powerful factor in enriching the mental development of a child. Folk games contain a whole complex of developmental activities for a child. It is no coincidence that our attempt to classify Uzbek folk games led to results similar to the classification of games adopted in modern pedagogy, but with the essential clarification that many folk games seem to incorporate signs of several types of games. This is the game "Beshtosh" and we have studied it in details. This game is a game that urges children to move physically. It is a puzzle game which makes a child to think deeply. It is a symbolic story gameand an entertainment game that makes gamers laugh a lot, it is a fun game, an intellectual game that checks children's intellectual competency and finally it is a didactic game that educates players. In all these "faces" of the game of five stones (Beshtosh) we can feel great developmental function. It is always one and the same game, but the game is itself complex. The fact that Uzbek children, like Russians, do not know folk games testifies to the dangerous trend for the psychological and social development of children to displacement from the system of education means those that form in children not special, but universal qualities of the mental make-up of the personality.In turn, the folk game or, as it is called in foreign publications, the traditional game has its historical genesis in the investigations of researchers (D.B.Elkonin, 1988) and the wide variety of activities

of the scientists (H.Heizinga, 1992). They have conducted researches based on authentic materials.

If we turn to the observation of the games of a modern child, then we can easily notice that the games with objects appeared first, followed by a symbolic plot games. This data have been given in popular findings of investigations (S.L. Novoselova, 1978). Such games as didactic, mobile and others come to the child later at the will of the adults who are raising and educating the child. In the modern life of a child, older children or adults teach him folk games.

It can be assumed that historically folk games could be preceded by symbolic, objective and amateur games. Folk, in particular, archaic, such as "Beshtosh", "Soloy-Soloy" and others generalize the experience of object and symbolic play in the rule.

In the direction of the folk game, an intense competitiveness in the mind, resourcefulness, physical dexterity, wit, and foresight is clearly traced. It is no coincidence that some folk games for adults and children come close to chess in terms of the generalization of the plot. Directing a folk game turns into a historically original prototype - a symbolic game in which the motor (dynamic) component serves as a means of generalizing the plot into a rule. It is natural that the historical development of the symbolic plot game of a game with rules seems to reflect the way of generalizing the experience of an individual game in a universal archaic folk game. This historically becomes a cultural contribution of childhood to the development of human civilization to the quality of a pedagogical folk means of raising a child in himself through the play of the necessary universal human generic psyche, approved (supported) by adults.

Thus, folk, including archaic games, introduced into the practice of family and social education, can significantly enrich the mental development of a modern child. Let us list the main features of folk games that allow us to consider them a powerful means of amplifying the mental development of a child, his activities.

Discussion.

First of all, as we have seen from the analysis of the psychological content of a number of games, they all contribute to the emergence and powerful development of the symbolic (sign) function of thinking deeply. So, the game "Beshtosh", as has already been shown in the study, can help to improve verbal interpretation of game actions, changes in the situational field of the game, enrichment of the child's intellect, his perception and vivid imagination, activates and multiplies positive reaction of children. Moreover, as evidenced by children's statements, playing material – pebbles of bigger stones serve as a support for children's imagination, they contribute to theexteriorization of the image of playdue to their neutrality and "ugliness". Pebbles and the game

situation, on the whole, serve as a support for the thought of a child at play, generated by the image of the world that has developed in him and gives food to his imagination. In addition to the development of a figurative and symbolic plan of thought, folk games with pebbles and shaped stones contribute to the child's analysis of his own actions.As the facts obtained in the study of the behavior of play and speech of children playing the game "Beshtosh" show that children constantly explain their actions to themselves and those around them, which are recorded in the records of researchers. These explanations (comments) are associated with self-assessment of their actions and their results. Self-esteem can be developed via this game, firstly, as a reflection of the causes and consequences of one's own actions, and secondly, as self-esteem of oneself, addressed to others present. It occurs when the children are waiting for confirmation or correction from adults or other players. On the basis of self-esteem and analysis of the reasons for failure and the prospects for achievement, children develop the ability to reflect on the methods of their actions, which leads to a restructuring of the internal orienting link from a figurative basis to a "theoretical" one. The child begins to think first, to make decisions ("I will train at home"), and therefore already seeks to realize himself as a result. Understanding of cause-and-effect relationships, the dependence of the result of one's behavior, of one or another action is the most important cognitive developmental moment of a folk game.

Thus, it is obvious that the formation of sensorimotor coordination, operational skill, symbolic function of thinking, reflection of the mode of action at the level of practical formation of cause-and-effect relationships between the features of the produced action by its results takes place in the game of pebbles which is called "Beshtosh". As children gain experience in the game, he or she gets experienced and wit, they adapt well to the executive operations and to the conditions and limits of the game. That was shown in our studies, a mode of action is normalized that requires consideration of the peculiarities of the flight of the pebbles.As a result of the analysis, it was justified that at the first stage of the game with pebbles, high coordination of hand movements, visual analysis of changes of the positions of a pebble are required from the players. All the body and eye and all the senses are supposed to be alert in this game. All the body, including torso, arms, legs, and head should move in harmony in this game. A child, throwing a pebble, moves in the direction of the pebble, as if tossing a pebble not with his hand (or hands), but with his body in general. The child moves the body to the right, left, forward, backward, sometimes upward getting up behind a flying stone. At the same time, the child's legs move in the knee and hip joints, the muscles of the lower back and buttocks are tense. The

child's shoulder girdle moves with the hands guided behind the stone.

In the middle of the process of mastering the playing field, the child changes poses quickly and frequently, children choose the most comfortable pose and adhere to it during the game. Overtime children acquire their practical poses. At the final stage of the formation of correct methods of playing with pebbles, there are no longer sharp, frequent or unusual poses, the main operations are performed by the hands of the child. Analysis of the data and their discussion shows that at the beginning of the experiment, children did not have the skills of fine movements with small objects; in the process of the game, the child's movements are redundant and at the same time constrained, the movements of the hand, eyes and head are inconsistent; the verbal interpretation of what is happening appears gradually, as the necessary actions are mastered throughout the game. Time-lapse photography made it possible to record actions of the right and left hands, in the direction of the gaze in the field of action, deviations of the body, change of poses, facial expressions. On the basis of all the results obtained, characterizing the transformation of the content of executive operations, it can be fixed that the child undergoes shifts both in the bodily basis of movement, and in systemically related the basis of the movements of the arms and hands, which become the main executive organ of fine purposeful operations, coordinated with the results of visual orientation in the situation. The entire process described is nothing but the process of acquiring the experience of activity by the child, from the "central positions" of which the child is oriented in the conditions of the play task. The experience of activity in a generalized form can be represented by one or another generalized method of action [6:41]. In this work, such a generalized mode of action is a game action that corresponds to the canon (rule) of the archaic game of stones. The rules of the game encourage the player to strive to master the generalized mode of action, the motor expression of which will bring, as the analysis shows, the regularities of the transition from the activity of the proximal motor system of the child's body and his hand to the distal one [3:89], corresponding to the signs of manual tool-object action and its reflection.

So, there are regular transformations of the system of effective movements, determined by the process of acquiring the child's experience of activityin the game named "Beshtosh". The sign of the developing role of the archaic game "Five stones" ("Beshtosh") is hidden in its "gymnastic" effect, the whole complex of motor activity in the game with stones creates an exceptional training effect, which is an undoubted factor in the enrichment of the physiological basis for the development of activity of the child and the corresponding procedure of mental processes. In the process of mastering the game, children made a lot of non-standard movements inadequate to the game task. Usually, lack of coordination in movements, awkward and even ridiculous movements are considered wrong on the path to motor excellence achieved by training. We tend to consider the periods preceding the emergence of the most elaborated generalized methods of action as a period of non-standard movements that have an independent developmental value, because It is during this period that the child begins to feel the physical capabilities of his body. Physiologically, this period is very active, opposing the dynamics of inactivity. Another developmental and enriching effect is that when playing with pebbles, head movements caused by the need to follow the flight of pebbles create conditions for a better blood supply to the brain, possibly serve to prevent the consequence of immobility of the cervical vertebrae, which is inevitable in an impoverished environment for the activity of a modern child, who most often plays with objects that are invariably in the same plane.

The idea of enriching the field of physical development of a modern child with folk games may also be fruitful for the family and social education of preschoolers. The gymnastic moments of the game reach their highest effect twice during the period of extraordinary movements and during the period of masterly practiced playing-juggling with stones. It can be assumed that at these moments the game of "five stones" approaches the effect of exercises such as yoga.

The modern version of the game "Beshtosh" for a preschooler contains the possibility of self-affirmation and enjoyment of his skillful body, which is important for the emergence of motives for further personal development of the child.

On the basis of the data presented, it is possible to put forward the position of fixing the experience of global body coordination in the "eye-hand" executive operation. Reference to the works of scientists who studied the psychology and physiology of movements (N.A.Bernstein, L.K.Lyubomirsky), their relationship with indicators of cardiac activity and metabolic processes (A.A.Umrikhin), as well as data on the formation of tool movements in primate phylogenesis (S.L.Novoselova), in anthropogenesis (S.L. Semenov) and our own materials allowed us to assess the biological aspect of the influence of playing with pebbles on the development of a child. This moment allows us to talk about the broader developmental meaning of playing with pebbles, affecting not only psychological, but also physiological, as well as the exchange of the mechanism of the child's body.

Conclusions.

So, the function of folk games manifests itself in two layers:

- they contribute to the development by the child of such universal qualities of the human psyche as the symbolism of thinking;

- the ability to subtle sensorimotor coordination;

- generalization of the experience of activity in the mode of action, representing a certain perspective of the image of the child's world, etc.;

- they serve as a means of forming: initial ethnopsychological personality traits.

In folk games, the history of the child's assimilation of the cultural (social) experience of past generations is presented, thanks to the mechanism of generalizing the plot of the game, a symbolic game that reflects real life into a rule. The outgoing folk games should return to children's society and become a powerful means of enriching the mental development of a modern child.

A thorough and elaborate analysis of all materials and a discussion of the results of the current studies allow us to draw the following conclusions:

- They serve as a means of forming the initial ethno-psychological personality and traits of offspring

- There is a complex effect of the game on the body and mental activity of the children playing this game, which is important for enriched development in preschool age; gymnastic (physiological) effect of the game is closely akin to some aspects of yoga;

- The abundance of a variety of extraordinary movements can increase the level and intensity of metabolic processes, blood circulation can be accelerated, muscles are more supplied with blood, oxidative processes are intensified, waste products enter the blood more actively and are carried away faster;

- The emergence of a speech interpretation of what is happening, the assignment of certain pebbles of play value enriches the development of the figurative plan of thought, imagination, active speech of the child and that is the evidence of the powerful development of the symbolic function of the thinking of children;

- Self-commenting on one's actions and their the ability for self-esteem, reflection can be ensured which leads to its intellectual and moral enrichment.

In conclusion, based on the results of the study, we can say that:

- -popular archaic games (including playing with stones) are one of the generalized forms of historically established social experience, presented in the form of plot-role and symbolic content;

- -systematic playing of pebbles is very important for the formation of sensomotor coordination and operational skill;

- - children from different regions master different semantic content of this game on the same material while maintaining the generality of its general developmental psychological meaning, it should be assumed that archaic games are characterized by general human universality;

- - an important moment for the personal development of children are the various rules and content laid down in this game during its historical development, depending on the attitudes and traditions of the original ethnic environment;

- -social and cultural value of folk games in modern society consists of their significance for the formation of basic ethnopsychological personality traits.

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TRANSFER FUNCTION OF SYSTEM PROTECTED FROM VIBRATION AND ITS MINIMUM

Abstract: *The problem of determining the transfer function and the conditions of its minimization of a rod with an elastic dissipative characteristic of the hysteresis type in conjunction with a liquid section dynamic absorber under the influence of harmonic excitations is considered. The transfer function is determined depending on the system parameters. The conditions for having a minimum are given in the form of a theorem. The elastic dissipative characteristics of the rod hysteresis type are based on the Pisarenko - Boginich hypothesis.*
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Introduction

It is important to study the dynamics of harmful vibrations in mechanical systems, to identify the factors that hinder their long-term perfect operation, and to address their elimination. In this regard, the study of the dynamics of the rod protected from vibrations is a urgent problem.

Theoretical and experimental studies have been conducted to investigate the dynamics of nonlinear motion of complex mechanical systems, including transverse vibrations of the rod and its minimization, taking into account the elastic dissipative properties of dynamic absorbers and rods.

Works [1-3] show the method of internal resonances in kinematic motion. In particular, the motion of a rod with variable and constant cross-section under the influence of harmonic excitations was obtained using the Lagrage equations, and the transfer function and amplitude-frequency characteristics were analyzed.

In works [4-7], the vibrational forms of vibration-protected rods have been studied experimentally. Graphs of shape modes with frequency variations were used to get conclusions and make recommendations.

In works [8 - 12], the theoretical basis for determining the shape modes and frequencies of vibrations involved in the transfer function of rods has been developed taking into account the effects of various external loads, and the results of the experiment have been presented.

The work [13,14] analyzed the dynamics of a rod with elastic dissipative characteristics of the hysteresis type, which is protected from vibrations, and liquid section dynamic absorber on the basis of transfer functions, conclusions and recommendations for the selection of system parameters.

Although each of these works has its advantages and disadvantages, they are all widely used in the development of theoretical research and in solving practical problems.

The results of the analysis showed that there is a need for a large-scale study to determine the transfer functions of rods with elastic dissipative characteristics of the hysteresis type, protected from vibration. Therefore, solving such problem is one of the current problems.

Materials and methods

In this paper, we consider the problem of determining the transfer function of the rod with an elastic dissipative characteristic of the hysteresis type, which is protected from vibrations under the influence of harmonic excitations, and the conditions for its minimum.

Harmonic excitations consist of forces $F_L(t)$ and $F_R(t)$ applied to both ends of the rod.

The differential equations of motion of the system under consideration can be obtained using the bond graph method, and it is as follows:

$$A_* \ddot{Q} + B\dot{Q} + CQ = F, \tag{1}$$

where

$$\ddot{Q} = \begin{bmatrix} \ddot{q}_i \\ \ddot{q}_3 \\ \ddot{q}_4 \end{bmatrix}; \dot{Q} = \begin{bmatrix} \dot{q}_i \\ \dot{q}_3 \\ \dot{q}_4 \end{bmatrix}; Q = \begin{bmatrix} q_i \\ q_3 \\ q_4 \end{bmatrix}; F = \begin{bmatrix} u_m(0)F_L + u_m(L)F_R \\ 0 \\ 0 \end{bmatrix};$$

$$A_* = \begin{bmatrix} m_i & 0 & 0 \\ (m_{13} + m_{2*})u_m(x_1) & m_{13} + m_{2*} & m_{2*} + m_v \\ (m_{2*} - m_v)u_m(x_1) & m_{2*} - m_v & m_{2*} + m_{4*} \end{bmatrix};$$

$$B = \begin{bmatrix} 0 & -u_m(x_1)b_F & 0 \\ 0 & b_F & 0 \\ 0 & 0 & b_S \end{bmatrix}; C = \begin{bmatrix} c_i & -u_m(x_1)c_{1*} & 0 \\ 0 & c_{1*} & 0 \\ 0 & 0 & 2c_{2*} \end{bmatrix};$$

m_{1*} is the inert dimension (mass) of the outer body of the dynamic absorber, which surrounds the liquid; m_{2*} is the inert dimension (mass) of a solid of dynamic absorber; m_{3*} is inert dimension of liquid (mass); m_{4*} is inert dimension (mass) of the fluid adhering to the body 2 with mass m_{2*}; b_F is coefficient of resistance of damper (coefficient of viscosity); c_{1*}^{-1} and c_{2*}^{-1} are compliances (coefficients of elasticity); q_3 and q_4 are displacements of masses m_{1*} and m_{2*}, respectively; $m_{13} = m_1 + m_3$; m_i and

$c_i = c_{1i} + jc_{2i}$ are modal mass and modal stiffness corresponding to i-sets of the rod, respectively; q_i are displacement of i-sets of the rod; $u_i(x_1), u_i(0)$ and $u_i(L)$ are the values of mode shapes of the rod at the point $x = x_1$ where the dynamic absorber installed and at the points $x = 0$ and $x = L$ where the external forces exist, respectively; m_v is the mass of liquid squeezed out by body of mass m_{2*}; b_S is viscosity coefficient of the liquid;

$$c_{1i} = [\int_0^L \rho A(1 - C_0\eta_1)u_m^2 dx - \frac{3EI}{\omega_{*m}^2}\eta_1 \sum_{i^*=1}^n C_{i^*} q_{ma}^{i^*} \frac{h^{i^*}}{2^{i^*}(i^* + 3)} \int_0^L u_m \frac{\partial^2}{\partial x^2}\left(\frac{\partial^2 u_m}{\partial x^2}\left|\frac{\partial^2 u_m}{\partial x^2}\right|^{i^*}\right) dx]\omega_{*m}^2;$$

$$c_{2i} = [\int_0^L \rho A C_0\eta_2 u_m^2 dx + \frac{3EI}{\omega_{*m}^2}\eta_2 \sum_{i^*=1}^n C_{i^*} q_{ma}^{i^*} \frac{h^{i^*}}{2^{i^*}(i^* + 3)} \int_0^L u_m \frac{\partial^2}{\partial x^2}\left(\frac{\partial^2 u_m}{\partial x^2}\left|\frac{\partial^2 u_m}{\partial x^2}\right|^{i^*}\right) dx]\omega_{*m}^2;$$

A and ρ are the cross-sectional area and density of the rod; $C_0, C_1, \ldots, C_n$ are experimentally determined coefficients of the hysteresis loop, depending on the damping properties of the rod material [15]; E is Yong's module; I is moment of inertia; q_{ma} are amplitude values of rod vibration forms; h and ω_{*m} are the thickness and natural frequency of the rod; u_m are mode shapes; $\eta_1, \eta_2 = sign(\omega)\eta_{22}$ are constant coefficients depending on the dissipative properties of the rod material, determined from the hysteresis loop, $sign(\omega)$ is the sign of ω, η_{22} is constant coefficient; L is length of the rod; $j^2 = -1$.

(1) Using a system of differential equations, we determine the transfer function and the condition of its minimum, which allows to analyze the dynamics of the system under consideration.

Result and discussion

Using the system of differential equations (1), the system under consideration can be reduced to a system of algebraic equations by the differential operator $S = \frac{d}{dt}$, and from this system of algebraic equations the variables q_i, q_3, q_4 are defined as follows [14]:

$$q_i(S) = \frac{a_3(b_2 d_3 - b_3 d_2)}{a_1(b_2 d_3 - b_3 d_2) + a_2(b_3 d_1 - b_1 d_3)};$$

$$q_3(S) = \frac{a_3(b_3 d_1 - b_1 d_3)}{a_1(b_2 d_3 - b_3 d_2) + a_2(b_3 d_1 - b_1 d_3)}; \tag{2}$$

$$q_4(S) = \frac{a_3(b_1 d_2 - b_2 d_1)}{a_1(b_2 d_3 - b_3 d_2) + a_2(b_3 d_1 - b_1 d_3)};$$

where $a_1 = m_i S^2 + c_i$; $a_2 = -u_m(x_1)(b_F S + c_{1*})$; $a_3 = u_m(0)F_L + u_m(L)F_R$;

$$b_1 = M_1 u_m(x_1)S^2; b_2 = M_1 S^2 + b_F S + c_{1*}; b_3 = M_2 S^2;$$
$$d_1 = M_3 u_m(x_1)S^2; \; d_2 = M_3 S^2; \; d_3 = M_4 S^2 + b_S S + 2c_{2*};$$
$$M_1 = m_{13} + m_{2*}; M_2 = m_{2*} + m_v; M_3 = m_{2*} - m_v; M_4 = m_{2*} + m_{4*}.$$

Expressions (2) allow us to study the dynamics of transversal vibrations of liquid section dynamic absorber and hysteresis-type elastic dissipative characteristic rod. Absolute accelerations are also important in studying the dynamics of systems. For this purpose, we determine the absolute acceleration of the system under consideration.

Suppose that the external forces F_L and F_R acting on the base by placing the left and right ends of the rod give the system acceleration W_0. In that case

$$F_L = F_R = m_i W_0. \tag{3}$$

Absolute acceleration of the rod

$$\ddot{W}_a = \ddot{w}_i + W_0. \tag{4}$$

We put the expression for the forces (3) in the system of equations (1) and use them and the expression for the absolute acceleration (4) to obtain the ratio of the expression for the acceleration to the base acceleration as follows:

$$W_i(S,x) = 1 + \frac{u_i(x)S^2 q_i(S)}{W_0}. \tag{5}$$

(5) represents the transfer function of the system under consideration.

We set the first equation of the system of equations (2) to the transfer function (5) and change from variable S to variable $j\omega$.

$$W_i(j\omega, q_{ma}, x) = \frac{E_0 + jE_1}{N_0 + jN_1}, \tag{6}$$

where

$$E_0 = \mu_0 - \mu_1\omega - \mu_2\omega^2 + \mu_3\omega^3 + \mu_4\omega^4 - \mu_5\omega^6; \tag{7}$$
$$E_1 = \mu_6 + \mu_7\omega - \mu_8\omega^2 - \mu_9\omega^3 + \mu_{10}\omega^4 + \mu_{11}\omega^5; \tag{8}$$
$$N_0 = \alpha_0 - \alpha_1\omega - \alpha_2\omega^2 + \alpha_3\omega^3 + \alpha_4\omega^4 - \alpha_5\omega^6; \tag{9}$$
$$N_1 = \alpha_6 + \alpha_7\omega - \alpha_8\omega^2 - \alpha_9\omega^3 + \alpha_{10}\omega^4 + \alpha_{11}\omega^5; \tag{10}$$
$$\mu_0 = \alpha_0 = 2c_{1*}c_{2*}c_{1i}; \; \mu_1 = \alpha_1 = (2b_F c_{2*} + b_S c_{1*})c_{2i}; \mu_2$$
$$= (c_{1*}M_4 + b_F b_S + 2c_{2*}M_1)c_{1i} + 2c_{1*}c_{2*}(m_i + u_i^2(x_1)M_1) - u_i(x)m_i(u_i(0) + u_i(L)));$$
$$\mu_3 = \alpha_3 = (b_F M_4 + b_S M_1)c_{2i}; \mu_4 = \Delta c_{1i} + M_1 u_i^2(x_1)b_F b_S + u_i^2(x_1)\Delta c_{1*} +$$
$$+(1 + u_i(x)(u_i(0) + u_i(L)))m_i(M_4 c_{1*} + b_F b_S + 2c_{2*}M_1); \mu_5 = \Delta m_i(1 + u_i(x)(u_i(0) + u_i(L));$$
$$\mu_6 = \alpha_6 = 2c_{1*}c_{2*}c_{2i}; \mu_7 = \alpha_7 = (2b_F c_{2*} + b_S c_{1*})c_{1i}; \mu_8 = \alpha_8 = (c_{1*}M_4 + b_F b_S + 2c_{2*}M_1)c_{2i};$$
$$\mu_9 = (b_F M_4 + b_S M_1)c_{1i} + (m_i + u_i^2(x_1)M_1 + u_i(x)m_i(u_i(0) + u_i(L)))(c_{1*}b_S + 2c_{2*}b_F); \mu_{10} = \alpha_{10} = \Delta c_{2i};$$
$$\mu_{11} = u_i^2(x_1)b_F\Delta + (1 + u_i(x)(u_i(0) + u_i(L)))m_i(M_4 b_F + b_S M_1);$$
$$\alpha_2 = (c_{1*}M_4 + b_F b_S + 2c_{2*}M_1)c_{1i} + 2c_{2*}c_{1*}(m_i + u_i^2(x_1)M_1);$$
$$\alpha_4 = \Delta c_{1i} + m_i(M_4 c_{1*} + b_F b_S + 2c_{2*}M_1) + u_i^2(x_1)c_{1*}\Delta + u_i^2(x_1)b_F b_S M_1.$$
$$\alpha_5 = m_i\Delta; \alpha_9 = (b_F M_4 + b_S M_1)c_{1i} + (2b_F c_{2*} + b_S c_{1*})(m_i + u_i^2(x_1)M_1);$$
$$\alpha_{11} = m_i(b_F M_4 + b_S M_1) + u_i^2(x_1)b_F\Delta; \Delta = M_1 M_4 - M_2 M_3.$$

Since it is of practical importance that the absolute accelerations of the rod points, determined from the expression of the transfer function (6) in the dynamic reducing of vibrations, reach a minimum value, we will test this function to a minimum.

The absolute value of the transfer function (6) depends on the variables ω and q_{ma}.

$$|W_i(j\omega, q_{ma}, x)| = \Phi_i(\omega, q_{ma}, x) = \sqrt{\frac{E_0^2 + E_1^2}{N_0^2 + N_1^2}}. \tag{11}$$

The following equations can be generated that allow the determination of stationary points:

$$\frac{\partial \Phi_i}{\partial q_{ma}} = \Phi_i[\frac{E_0(E_0)'_{q_{ma}} + E_1(E_1)'_{q_{ma}}}{E_0^2 + E_1^2} - \frac{N_0(N_0)'_{q_{ma}} + N_1(N_1)'_{q_{ma}}}{N_0^2 + N_1^2}]. \tag{12}$$

$$\frac{\partial \Phi_i}{\partial \omega} = \Phi_i[\frac{E_0(E_0)'_\omega + E_1(E_1)'_\omega}{E_0^2 + E_1^2} - \frac{N_0(N_0)'_\omega + N_1(N_1)'_\omega}{N_0^2 + N_1^2}]. \tag{13}$$

We define second-order partial derivatives from (12) and (13).

$$\frac{\partial^2 \Phi_i}{\partial q_{ma}\partial\omega} = \frac{\partial^2 \Phi_i}{\partial\omega\partial q_{ma}} = \Phi_i[\frac{((E_0)'_\omega(E_0)'_{q_{ma}} + E_0(E_0)''_{q_{ma}\omega} + (E_1)'_\omega(E_1)'_{q_{ma}} +}{(E_0^2 + E_1^2)^2}$$
$$+E_1(E_1)''_{q_{ma}\omega})(E_0^2 + E_1^2) - 2(E_0(E_0)'_{q_{ma}} + E_1(E_1)'_{q_{ma}})(E_0(E_0)'_\omega + E_1(E_1)'_\omega)$$

$$-\frac{\left((N_0)'_\omega(N_0)'_{q_{ma}} + N_0(N_0)''_{q_{ma}\omega} + (N_1)'_\omega(N_1)'_{q_{ma}} + N_1(N_1)''_{q_{ma}\omega}\right)(N_0^2 + N_1^2) -}{(N_0^2 + N_1^2)^2}$$

$$\frac{-2\left(N_0(N_0)'_{q_{ma}} + N_1(N_1)'_{q_{ma}}\right)\left(N_0(N_0)'_\omega + N_1(N_1)'_\omega\right)}{}] +$$

$$+\frac{\partial\Phi_i}{\partial\omega}\left[\frac{E_0(E_0)'_{q_{ma}} + E_1(E_1)'_{q_{ma}}}{E_0^2 + E_1^2} - \frac{N_0(N_0)'_{q_{ma}} + N_1(N_1)'_{q_{ma}}}{N_0^2 + N_1^2}\right]; \qquad (14)$$

$$\frac{\partial^2\Phi_i}{\partial q_{ma}^2} = \Phi_i\left[\frac{\left(((E_0)'_{q_{ma}})^2 + E_0(E_0)''_{q_{ma}q_{ma}} + ((E_1)'_{q_{ma}})^2 + E_1(E_1)''_{q_{ma}q_{ma}}\right) \times}{(E_0^2 + E_1^2)^2}\right.$$

$$\times (E_0^2 + E_1^2) - 2\left(E_0(E_0)'_{q_{ma}} + E_1(E_1)'_{q_{ma}}\right)^2 - \frac{\left(((N_0)'_{q_{ma}})^2 + N_0(N_0)''_{q_{ma}q_{ma}}\right.}{(N_0^2 + N_1^2)^2}$$

$$+\left((N_1)'_{q_{ma}}\right)^2 + N_1(N_1)''_{q_{ma}q_{ma}})(N_0^2 + N_1^2) - 2\left(N_0(N_0)'_{q_{ma}} + N_1(N_1)'_{q_{ma}}\right)^2}{}] +$$

$$+\frac{\partial\Phi_i}{\partial q_{ma}}\left[\frac{E_0(E_0)'_{q_{ma}} + E_1(E_1)'_{q_{ma}}}{E_0^2 + E_1^2} - \frac{N_0(N_0)'_{q_{ma}} + N_1(N_1)'_{q_{ma}}}{N_0^2 + N_1^2}\right]; \qquad (15)$$

$$\frac{\partial^2\Phi_i}{\partial\omega^2} = \Phi_i\left[\frac{\left(((E_0)'_\omega)^2 + E_0(E_0)''_{\omega\omega} + ((E_1)'_\omega)^2 + E_1(E_1)''_{\omega\omega}\right)(E_0^2 + E_1^2) -}{(E_0^2 + E_1^2)^2}\right.$$

$$\frac{-2(E_0(E_0)'_\omega + E_1(E_1)'_\omega)^2}{} - \frac{\left(((N_0)'_\omega)^2 + N_0(N_0)''_{\omega\omega} + ((N_1)'_\omega)^2 +}{(N_0^2 + N_1^2)^2}$$

$$\frac{+N_1(N_1)''_{\omega\omega})(N_0^2 + N_1^2) - 2(N_0(N_0)'_\omega + N_1(N_1)'_\omega)^2}{}] +$$

$$+\frac{\partial\Phi_i}{\partial\omega}\left[\frac{E_0(E_0)'_\omega + E_1(E_1)'_\omega}{E_0^2 + E_1^2} - \frac{N_0(N_0)'_\omega + N_1(N_1)'_\omega}{N_0^2 + N_1^2}\right]. \qquad (16)$$

The stationary values of the variables q_{ma} va ω are determined from the following system of equations:

$$\frac{\partial\Phi_i}{\partial q_{ma}} = 0; \quad \frac{\partial\Phi_i}{\partial\omega} = 0. \qquad (17)$$

For $\Phi_i \neq 0$,

$$\frac{E_0(E_0)'_{q_{ma}} + E_1(E_1)'_{q_{ma}}}{E_0^2 + E_1^2} - \frac{N_0(N_0)'_{q_{ma}} + N_1(N_1)'_{q_{ma}}}{N_0^2 + N_1^2} = 0. \qquad (18)$$

$$\frac{E_0(E_0)'_\omega + E_1(E_1)'_\omega}{E_0^2 + E_1^2} - \frac{N_0(N_0)'_\omega + N_1(N_1)'_\omega}{N_0^2 + N_1^2} = 0. \qquad (19)$$

Based on the above results and the *theorem* that a function of two known variables has a minimum can be defined for the absolute value of the transfer function as follows:

If the variables q_{ma} and ω satisfy system of equations (17) and

$$\frac{\partial^2\Phi_i}{\partial q_{ma}^2} > 0, \frac{\partial^2\Phi_i}{\partial\omega^2} > 0, \qquad (20)$$

along with satisfying inequalities

$$\frac{\partial^2\Phi_i}{\partial q_{ma}^2}\frac{\partial^2\Phi_i}{\partial\omega^2} - \left(\frac{\partial^2\Phi_i}{\partial q_{ma}\partial\omega}\right)^2 > 0, \qquad (21)$$

satisfy the inequalities, then the absolute value of the transfer function reaches a minimum at these values of the variable.

The dynamics of hysteresis type elastic dissipative characteristic rod and the liquid section dynamic absorber were studied on the basis of the following numerical values of the design parameters:

the rod material is an alloy of aluminum AL 19, the mechanical characteristic of which is taken to be $E = 6964119 \cdot 10^4 \frac{N}{m^2}, \rho = 2780 \frac{kg}{m^3}$. Geometric dimensions of the rod: height is $z = h = 5 \cdot 10^{-4}\,m$,

length is $L = 120 \cdot 10^{-2}m$, cross-sectional area is $A = 12 \cdot 10^{-6}m^2$. In this case $I = \frac{Ah^2}{12} = 25 \cdot 10^{-14}m^4$.

Instructions for selecting the parameters of liquid section dynamic absorber are available in the work [13]. Based on this, the parameters accepted the following values when performing calculations: $b_S = 102.9 \cdot 10^3 \frac{N \cdot s}{m}; m_{4*} = 4.1 \cdot 10^{-3}\,kg; m_v = 4.1 \cdot 10^{-6}\,kg; m_{2*} = 4.5 \cdot 10^{-6}kg; m_1 = 1.3 \cdot 10^{-3}\,kg; m_3 = 2.7 \cdot 10^{-3}kg$.

In order to determine the coefficients related to the dissipative properties, taking into account the relationship between stress and strain in the AL19 aluminum alloy rod material under consideration, based on the numerical values given in the handbooks and using the method given in [16].

$$\delta(\xi_* = q_{ma}) = \chi_1 q_{ma} + \cdots + \chi_n q_{ma}^n, \qquad (22)$$

We first determine the following three terms of the logarithmic decrement coefficients [17]:

$$\chi_1 = 10.6662475; \chi_2 = -55.22539871 \cdot 10^2;$$
$$\chi_2 = 10.43466067 \cdot 10^5.$$

This defined logarithmic decrement expression (22) allows us to determine the variability in the absorption factor. Based on this, we write the absorption factor follows [17]:

$$\psi(\xi_* = q_{ma}) = C_0 + C_1 \left|\frac{\partial^2 u_m}{\partial x^2}\right| q_{ma}z + \cdots + C_n \left(\left|\frac{\partial^2 u_m}{\partial x^2}\right| q_{ma}z\right)^n. \tag{23}$$

We know that there is the following relationship between the absorption factor and the vibration decrement [17]: $\psi(\xi_*) = 2\delta(\xi_*)$.

For the values of the second-order derivative obtained from the first mode shape at the point which liquid section dynamic absorber is set, these coefficients assume the following values: $C_0 = 0$; $C_1 = 48.12119136 \cdot 10^2$; $C_2 = -56.20284398 \cdot 10^7$; $C_3 = 23.95479624 \cdot 10^{12}$.

We get the coefficients η_1 and η_{22} as follows [18]: $\eta_1 = \frac{3}{4}$; $\eta_{22} = \frac{1}{\pi}$.

As a result, the expressions c_{1i} and c_{2i} are as follows: $c_{11} = \rho A\omega_{*1}^2 \int_0^{0.6} u_1^2 dx - 3EI\eta_1(G_1 + G_2 + G_3)$; $c_{21} = 3EI\eta_{22}(G_1 + G_2 + G_3)$, where

$$G_1 = C_1 \frac{h}{8} q_{1a} \int_0^{0.6} u_1 \frac{\partial^2}{\partial x^2}\left(\frac{\partial^2 u_1}{\partial x^2}\left|\frac{\partial^2 u_1}{\partial x^2}\right|\right) dx;$$

$$G_2 = C_2 \frac{h^2}{20} q_{1a}^2 \int_0^{0.6} u_1 \frac{\partial^2}{\partial x^2}\left(\frac{\partial^2 u_1}{\partial x^2}\left|\frac{\partial^2 u_1}{\partial x^2}\right|^2\right) dx;$$

$$G_3 = C_3 \frac{h^3}{48} q_{1a}^3 \int_0^{0.6} u_1 \frac{\partial^2}{\partial x^2}\left(\frac{\partial^2 u_1}{\partial x^2}\left|\frac{\partial^2 u_1}{\partial x^2}\right|^3\right) dx.$$

If we calculate the integrals G_1, G_2, G_3, they are: $G_1 = 230.3833425 q_{1a}$; $G_2 = -69232.74335 q_{1a}^2$; $G_3 = 8019069.423 q_{1a}^3$. $c_{11} = 1.031053156 - 9.024845694 q_{1a} + 2712.06598 q_{1a}^2 - 314132.3646 q_{1a}^3$; $c_{21} = 3.830263476 q_{1a} - 1151.036552 q_{1a}^2 + 133321.9163 q_{1a}^3$.

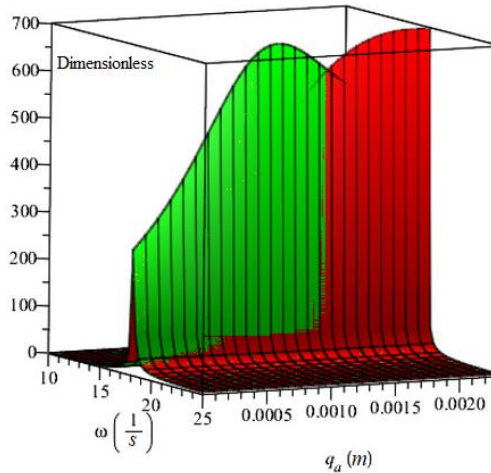Based on the determined values, we will plot a graph of the transfer function.

Figure 1. Graph of the transfer function

Analyzing these results, the graphs c_{1*} stiffness and b_F damping coefficient in the graph in Fig. 1 are infinitely large (red) and $c_{1*} = 10^5 \frac{N}{m}$; $b_F = 10^5 \frac{N \cdot s}{m}$ (green), changing of transfer function depending on amplitude and frequency is described. The results of the analysis show that when c_{1*} stiffness and b_F damping coefficient are infinitely large, spring with c_{1*} stiffness and damper can be considered as a solid.

This means that in this case the spring and damper are removed from the physical model of liquid section dynamic absorber. The result obtained therefore represents a graph of the transfer function of a new physical model of liquid section dynamic absorber mounted directly on rod with body surrounding liquid.

From this graph, when evaluating the efficiency of both liquid section dynamic absorbers above, it can be seen that the liquid section dynamic absorber with c_{1*} stiffness and damper is effective.

Conclusion

1. The defined transfer function allows to analyze the dynamics of the vibration of hysteresis type elastic dissipative characteristic rod in conjunction with liquid section dynamic absorber under the influence of harmonic excitations at different values of the system parameters.

2. From the given theorem the variables and system parameters for which the absolute value of the transfer function is minimized are necessary. As a result, it allows the practical design of a system

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consisting of hysteresis type elastic dissipative characteristic rod and liquid section dynamic absorber.

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"YOSHLAR KELAJAGIMIZ" STATE FUND ACTIVITIES

Abstract: This article discusses the issues of improving the activities of the State Fund for the Future of Youth. In addition, the role and potential of the state fund for the future of our youth in our country were analyzed. In addition, conclusions and recommendations for improving the activities of the State Fund for the Future of Youth were developed.

Key words: youth organizations, state youth policy, young generation, youth support.

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Introduction

Bringing up well-rounded, purposeful and energetic young people with modern knowledge and skills, who can take responsibility for the decent future of the country, is the most important condition for the sustainable and rapid development of the country. Great work has been done to increase their civic responsibility and involvement in the ongoing reforms. At the same time, to increase the socio-economic activity of young people in the field, to involve them in entrepreneurial activities, to implement promising ideas and projects of young entrepreneurs. In principle, systemic problems that hinder youth employment still persist.

In particular, targeted programs for the integrated development of youth entrepreneurship and the active involvement of young people in entrepreneurship are not implemented in the field and the necessary infrastructure is not created, which is the most important condition for creating new jobs. is still indifferent and indifferent to raising the entrepreneurial literacy of young people, instilling in them the skills of organizing and running a business.

In order to comprehensively support youth entrepreneurship, create conditions for active involvement of young people in business, create jobs and ensure youth employment, as well as the five pillars of the development of the Republic of Uzbekistan in 2017-2021. In accordance with the objectives of the Action Strategy in the priority areas:

1. Assisting and supporting young people in the implementation of business initiatives, startups, ideas and projects, training unemployed youth in specialties and business skills that are in high demand in the labor market, as well as the Youth is Our Future Foundation, which aims to provide employment for young people in general by increasing their socio-economic activity.

The main task of the Fund is to provide financial assistance to business entities under the state program in the following ways:

a) preferential loans and leasing of property through commercial banks at a rate of 7% per annum (with a bank margin of 2%) for the implementation of projects of business entities;

b) up to 50% of the amount of loans provided by commercial banks to business entities under the State Program, but not more than 1 billion soums. issuance of a guarantee of the Fund in the amount not exceeding UZS;

In this case, the total amount of guarantees provided by the Fund should not exceed 25% of the Fund's resources.

c) participation in the projects of business entities implemented under the State Program in the amount not exceeding 50% of their value, followed by the sale of the Fund's share for 5 years;

g) purchase of up to 20 young birds and rabbits, 5 small and 2 large cattle for households with young people with appropriate skills, feeding and subsequent

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sale with return of their value within the agreed timeframes; 'compromise;

The Fund carries out its activities in the following main areas:

☐ Participate in public policy to support the development of youth entrepreneurship, expand access to financial services and allocate resources for soft loans and property leasing;

☐ Support of youth business initiatives, startups, ideas and projects within the framework of the state program;

☐ Participate in the implementation of state, sectoral and regional programs, projects and activities that create jobs through the development of youth entrepreneurship;

☐ To support the innovative activities of business entities, to stimulate the creation and production of new types of products, as well as to promote the introduction of effective new technologies in production activities;

☐ Participate in the implementation of comprehensive scientific and applied research to study the problems of improving the support of youth entrepreneurship in the country in conjunction with research institutions.

Funds are formed from the following sources:

☐ Non-repayable financial assistance in the amount of 500 billion soums from the national budget in equal shares until August, October 1 and December 1, 2018 due to the overfulfillment of the projected part of revenues;

☐ quarterly contributions to the Fund in the amount of 1% of the annual revenues of extra-budgetary funds of ministries, state committees and agencies;

☐ In accordance with paragraph 13 of the Decree of the President of the Republic of Uzbekistan dated July 5, 2017 No PF-5106 "On increasing the effectiveness of state youth policy and support the activities of the Youth Union of Uzbekistan" 10 percent of the monthly income of the Youth Union Development Fund;

☐ grants from local, foreign and international organizations;

☐ Sponsors - funds of individuals and legal entities, residents and non-residents of the Republic of Uzbekistan;

☐ Income from the placement of temporarily vacant funds of the Fund in deposits and other financial assets of commercial banks;

☐ Income from the guarantee of the Fund, which is provided to businesses under loans from commercial banks under the state program;

☐ Other sources not prohibited by law.

The parameters of financing the activities carried out in the districts and cities under the state program in 2019 and beyond will be approved by the Cabinet of Ministers of the Republic of Uzbekistan, indicating the actual funds for the formation of the Fund.

The Deputy Minister of Finance commented on the difficulties of young people in obtaining soft loans. It was also announced that the Youth is Our Future Fund will not provide soft loans from 2021.

From 2021, the Youth is Our Future Fund will not provide soft loans to support youth entrepreneurship. This was announced by Deputy Finance Minister Jamshid Abruyev at a meeting of the Senate committee at the Ministry of Finance.

According to the Deputy Minister, in the future, more attention will be paid to the mechanism of compensation of bank rates through the Entrepreneurship Support Fund. "Concessional loans will always be effective. However, it is not always possible to be transparent on who should be given it. More attention is paid to the mechanism of compensation of bank rates through the Fund. Thus, the money of the Fund "Youth - Our Future" will not be lost. The youth agency has other events. Funds for reading, sports and all youth-related events organized by the Youth - Our Future Foundation are kept at the Youth Agency. President of the Republic of Uzbekistan Shavkat Mirziyoyev on December 27, 2019 at the school named after Muhammad al-Khwarizmi. At a meeting with young people, he spoke about the problems of the Youth Union and proposed the establishment of a Youth Affairs Agency on the basis of the Youth Union.

Involvement of families in entrepreneurial activities in the regions, their stable and additional source of income, further development of national crafts, implementation of women's entrepreneurship initiatives, the implementation of promising ideas and projects of young entrepreneurs, and on this basis the population. The groundwork is being laid for employment.

A sharp increase in the population's interest in earning income through labor, especially in the provision of handicrafts, home-based and other entrepreneurial activities of needy families, as well as production and services in unused buildings in the regions, effective use of public lands and vacant arable land. requires the systematic continuation of preferential financing of projects related to the expansion of production of dairy products. In the regions of the country, comprehensive assistance is being provided to the population in engaging in certain income-generating labor activities, the development of family business, and the systematic organization of work in this area.

Uzbekistan has a solid legal framework for business development, which is constantly being improved. The Decree of the President of the Republic of Uzbekistan "On measures to radically improve the system of protection of the legitimate interests of business by the state and the further development of entrepreneurial activity" provides for significant benefits in tax and financial relations. protection of interests, as well as radical improvement of the

Chamber of Commerce and Industry of the Republic of Uzbekistan. The decree stipulates that the Chamber of Commerce and Industry will protect the rights of entrepreneurs, improve the business and investment climate, promote entrepreneurship, cooperate with government agencies, train and train business entities, attract foreign economic activity and investment. In order to increase the welfare of the people, such programs as "Every family is an entrepreneur", "Youth is our future", "Prosperous village", "Prosperous neighborhood", land development were adopted. These programs serve to provide employment and create a source of income for families.

PF-5242 of the President of the Republic of Uzbekistan dated November 17, 2017 "On measures for further development of handicrafts and comprehensive support of artisans", June 27, 2018 "State program" Youth-Our Future " Decree No. PF-5466 of April 26, 2018 "On additional measures to improve the activities of farmers, dehkan farms and landowners" PQ-3680 No. PP-3777 of June 7, 2018 "On the implementation of the program" Every family is an entrepreneur "and No. 14 of July 14, 2018" On measures to improve and increase the efficiency of work to ensure employment " On the basis of the decisions of the Government of the Republic of Uzbekistan No. PP-3856, preferential loans are provided to individuals and businesses wishing to start a family business, engage in certain income-generating activities and expand their activities at a rate of 8% per annum for 3-6 months. lgan imti with a summer period of no more than 3 years. Thus, starting from January 1, 2020, it is possible to allocate loans at the refinancing rate of the Central Bank of the Republic of Uzbekistan through JSC People's Bank, JSCB "Microcreditbank" and JSCB "Agrobank". Five priority areas for development of the Republic of Uzbekistan in 2017-2021 Implementation of the tasks set out in the Action Strategy, including the establishment of effective mechanisms for effective communication and mutually beneficial cooperation between the business community and government agencies, strengthening guarantees of reliable protection of the rights and legitimate interests of private property and entrepreneurship, business environment New effective systems of cooperation between government agencies and business structures, especially in the early stages of entrepreneurship, are being created to ensure the provision of quality public services to businesses, as well as to provide them with quality public services.

In accordance with the Presidential Decree and Resolution of February 18, 2020, the Ministry of Mahalla and Family Support was established to support vulnerable and low-income families and to effectively involve the population in entrepreneurship. At the mahalla-district (city) -region-republican level, a vertical system has been created to create positions responsible for business development and poverty reduction.

Entrepreneurship development depends on many factors, primarily the knowledge, experience and entrepreneurship of the entrepreneur. Today's entrepreneur needs to have knowledge in management, basics of leadership techniques, business planning on economic issues, business analysis, cost reduction and profit maximization, as well as law and psychology. Because modern production is very complex, equipment and technology are constantly improving.

The experience of developed countries shows that entrepreneurship plays a very important role in modernizing and diversifying the national economy, ensuring its sustainable development, technical and technological re-equipment, development of new types of products, providing the domestic market with the necessary goods and services. is a clear indication that it is the main source of replenishment. For Uzbekistan, the role of private entrepreneurship in providing employment or self-employment to the able-bodied population and increasing its income is particularly important.

Young people are also a great force in the development of the country's economy. There are about 230,000 young entrepreneurs and farmers, skilled craftsmen in the country. The state is creating the necessary conditions for their further expansion.

More than 1 trillion 630 billion soums of soft loans have been allocated for about 8,000 business projects of the younger generation within the Youth is Our Future program alone, which has created about 40,000 new jobs.

The Young Entrepreneurs coworking centers and the Youth Labor Guzars, which are being established in the country, play an important role in supporting the entrepreneurship of the younger generation. Young people with entrepreneurial skills are starting their own businesses. In rural areas, more than 54,000 hectares of land have been allocated to about 65,000 young farmers as a result of the One Hectare for Every Age project. Implementation of the tasks set by the President of the Republic of Uzbekistan "On additional measures to improve the system of entrepreneurship and development of entrepreneurship" dated October 13, 2020 No PP-4862, especially for young people and women serves as a key area of support for business representatives. The resolution envisages wide involvement of the population, especially youth and women in entrepreneurship, improvement of the microfinance system, introduction of a system of state support for entrepreneurship and coordination by a single state organization.

Ensuring the implementation of the tasks set out in this resolution In paragraph 5 of the "Control Plan" for individuals with entrepreneurial initiatives, including youth and women, who have received a special certificate from JSCB "Microcreditbank" non-governmental educational organizations to start their own business Microcredits in the amount of up to 33 million soums will be allocated without collateral. The

founders of micro and small enterprises received 225 million soums on the basis of third-party guarantees, insurance policies, collateral for property purchased on credit, guarantees of the State Fund for Entrepreneurship Support and other types of security. microloans in the amount of up to m. Microcreditbank is tasked to take measures to provide microcredits at preferential interest rates to young people who have studied and obtained a certificate in vocational and business education. Such loans are issued for a period of 7 years with a grace period of 3 years. The bank plans to provide $ 45 million in microloans next year.

Now, on the basis of the principle "Every entrepreneur is a supporter of youth", 1 unemployed youth is attached to each entrepreneur. The "Project Factories" of commercial banks operating in the regions prepare project proposals and business plans based on the advanced ideas of our youth. A special fund has been established under the Ministry of Investment and Foreign Trade to finance youth projects. funds will be allocated. The fund provides loans for youth projects on favorable terms and at low interest rates. This will create at least 500,000 jobs a year in 2021 alone. In addition, the tradition of "teacher-apprentice" will be further strengthened in the regions of the country, and a system of financial incentives will be introduced from the Employment Promotion Fund for craftsmen involved in this noble work. "Youth small industrial zones" will be established in all cities and districts. These industrial zones will be equipped with all the necessary infrastructure to support the implementation of youth projects. The "Project Factories" of commercial banks operating in the regions prepare project proposals and business plans based on the advanced ideas of our youth. A special fund will be set up under the Ministry of Investment and Foreign Trade to finance youth projects, which will receive $ 100 million. The fund provides loans to youth projects on favorable terms and at low interest rates. According to the State Statistics Committee, the number of businesses, excluding farms and dehkan farms, has reached about 408,000. 90,161 of them are private enterprises. It is noteworthy that Fergana (11,061), Kashkadarya (9,200) and Namangan (7,188) regions have the highest number of private enterprises after the capital. This gives great hope for significant changes in the employment of young people in these regions. The implementation of such economic projects in the country will help create new jobs and improve the welfare of the population, especially young people.

In accordance with the Decree of the President of the Republic of Uzbekistan "On the State Program" Youth - Our Future ", from July 1, 2018, the implementation of the State Program" Youth - Our Future "in all districts (cities) of the country. It was decided to establish a fund "Youth - our future" under the Youth Union of Uzbekistan, as well as its district and city branches.

Republican and regional working groups set up to carry out the tasks assigned by the decree are going door-to-door to study the problems and proposals of young people. According to reports, the number of young people aged 14 to 30 in the country is 9,922.2 thousand. The Council of Ministers of the Republic of Karakalpakstan, Tashkent city and regional khokimiyats, prosecutor's office, internal affairs, tax, economy, finance, labor , 214 headquarters and district-city commissions, consisting of heads and employees of construction departments, Youth Union and self-government bodies, the Chamber of Commerce and Industry, commercial banks and other departments, 5,108 interdepartmental workers in 8,993 mahallas. groups were formed. In conclusion, it is worthwhile to pay attention to the following in the framework of the implementation of the State Program to date:

 On July 18, the Youth is Our Future Fund was registered with the Ministry of Justice and on July 20, an account was opened with the National Bank for Foreign Economic Activity;

 In order to organize the "Youth Labor Guzar" formed a clear address list of 1,789 vacant buildings and land plots in the country;

 In order to support the entrepreneurial activities of young people in 115 districts, land plots have been allocated for coworking centers "Young Entrepreneurs", 2 of which are now operational;

 Model business plans of youth business initiatives, startups, ideas and projects developed by the Chamber of Commerce and Industry of the Republic of Uzbekistan in cooperation with commercial banks;

 A number of draft regulations and procedures for the implementation of the state program have been developed.

 Work on the State Program "Youth - Our Future" is in full swing.

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MATHEMATICAL DEVELOPMENT OF DECOMPOSITION PROCESS OF PHOSPHORUS CONTAINING RAW MATERIALS

Abstract: *The effects of some components on the process of decomposition of apatite concentrate in the presented study were investigated, and the specificity of the superphosphate obtained from the study was determined by appropriate elements. Based on the lessons studied, a regression model of the degree of intensity and time dependence of the degree of decomposition on the problem using the "Recession" tool in MS Excel was obtained. Thus, based on the evidence obtained, a mathematical model reflecting the regularity of the rate of change of the raw material fragmentation under these conditions was developed, and it was proved that the model adequately describes the process along with the kinetic description of the process. However, the results of the research indicate that the process of phosphate fertilizers can meet the requirements of the technological process, which has a greater advantage in this area by intensifying the process of separating the apatite concentrate and eliminating of other noted deficiencies.*

Key words: *superphosphate, phosphoric flour, fluorides, chamber technology, apatite concentrate, sulfuric acid, silicon oxafluoride, MS Excel, regression equation, Fisher criteria, proxy error, breakdown rate.*

Language: *English*

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Introduction

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Mathematical modeling of the study of the effect of salts of silicon hexafluoric acid on the decomposition of phosphorus concentrate

Abstract

The need for mineral fertilizers of various compositions used to increase productivity and product quality in agriculture continues to grow. Therefore, for this reason, the expansion of the mineral fertilizer industry is an important issue that needs to be addressed. The most needed mineral fertilizers are various phosphorus fertilizers. Improving the quality of phosphorus fertilizers, reducing the cost of their production is a very important issue.

Method

The purpose of this research is to develop a mathematical model that can adequately describe the process, as well as provide a kinetic description of the process, reflecting the regularity of changes in the rate of decomposition of raw materials under these conditions, based on evidence obtained by studying the effect of certain components on the decomposition of phosphorus-containing raw materials.

Problem statement. Studies have shown that certain mixtures have a positive effect on the decomposition of raw materials, which form the basis of the production of phosphorus fertilizers [1-6]. Thus, when the minimum ratio of and to 2.5%, phosphate

decomposes faster than raw apatite concentrate, which does not contain magnesium. It should be noted that the importance of the presence of small amounts of many elements, including magnesium, along with the basic nutrients for the growth and development of plants.

During the process, part of the phosphorus in the raw material and relatively less soluble compounds are transferred to. In addition, difficult-to-resolve and compounds are also formed. Fluorides remain in the product mainly in the form of fluorides, and fluorsilicates of.

At present, the production of phosphorus fertilizers is carried out mainly using camera technology. As it is known, when apatite concentrate is used in the production of superphosphate by camera technology, the rate of decomposition reaches 85-86% during 1.5-2 hours in the chamber. The process of obtaining superphosphate is completed only after a long period of storage (2-3 weeks) of superphosphate. Simple superphosphate is granulated to improve its physical and agrochemical properties. In powdered superphosphate for granulation, free phosphoric acid is first neutralized with chalk, limestone, bone or phosphate flour, then mixed with a small fraction of the granulated product (retur) and granulated in a drum. and dried in a drying drum.

Results of certain studies show that the composition MgO introduction of phosphorite flour into the reaction zone, a weakly acidic mixture of ($H_2SO_4 + HCl$) Decomposition of phosphorus crops allows to shorten the duration of the technological process or completely shorten the ripening stage of the warehouse [2].

Apatite concentrate (from) in the following composition for the described research work (%): $P_2O_5 - 39,4$; $CaO - 54,0$; $F - 3,1$; containing waste from simple superphosphate and aluminum workshops. (consistency 8-12% H_2SiF_6) silicium hexafluoric acid and the resultingsilisium heksaflüorid K_2SiF_6, $(NH_4)_2SiF_6$ salts, dusts formed during the combustion of mixtures of phosphate, coke, silicon oxides in the furnace (%-lə): $P_2O_5 - 25-28$, $K_2O - 15,3-16,2$; $SiO_2 - 16-18$; $CaO - 1-2$; $F - 4-5,9$; Na_2O, Fe_2O_3, density at the same time 75% H_2SO_4 used sulfuric acid.

Qeyd olunduğu kimi, kalium və azotla modifikasiya olunmuş superfosfatın istehsalını çoxaltmaq məqsədilə silisium heksaflüorid turşusundan @ K_2SiF_6 və $(NH_4)_2SiF_6$ @duzlarından istifadə olunmuşdur [7-12]. Bu duzlardan superfosfat istehsalında istifadə edərkən əvvəlcə duzların əlavəsi ilə ApK -nın parçalanma prosesinin kinetikası öyrənilmiş və alınmış nəticələr işlənilmişdir. As noted, silicon hexafluoric acid salts K_2SiF_6 and $(NH_4)_2SiF_6$ have been used to increase the production of potassium and nitrogen modified superphosphate [7-12]. When using these salts in the production of superphosphate, the kinetics of the decomposition process of əvvəl with the addition of salts was first studied and the results obtained were developed.

Results and discussion

K_2SiF_6 və $(NH_4)_2SiF_6$ In the study of the decomposition of s with a mixture of additive, sulfuric and silicon hexafluoric acids, the ratio of waste (IST-1) to H_2SO_4 H_2SiF_6 was 95: 5. The concentration of acid mixtures is between 50-65%, the norm of this mixture is 100 parts by mass, 70 parts by mass, and the initial decomposition temperature of the mixture is 55oC. In all experiments, the conditions were the same and the quantities of K_2SiF_6 and $(NH_4)_2SiF_6$ - were different In certain experiments, the acid mixture was taken from 69 parts per 100 parts by mass and its concentrations (in%) were kept at 50, 55, 60, 63. The results are shown in Figure 1.

In addition to the above, experiments have been carried out to increase the concentration of acid over time in order to clarify the regularities of the decomposition of. Based on the evidence obtained, the process was analyzed and certain results were obtained. These are shown in Table 1 and Figure 2.

decomposition coefficient
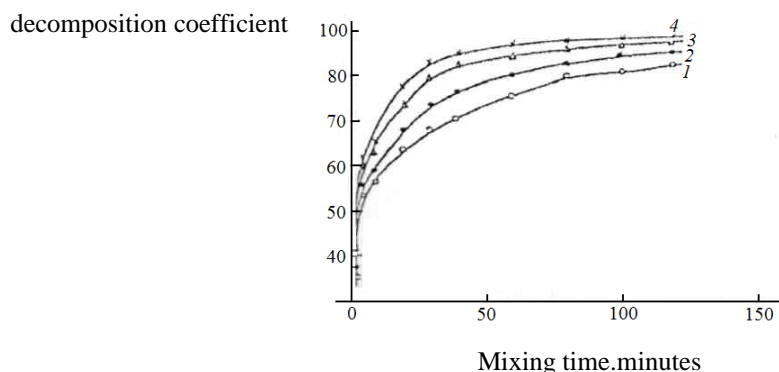

Mixing time.minutes

Figure 1. Processed sulphate (IST-1) in the presence of potassium-containing waste mass and H₂SiF₆ change of decomposition coefficient in different concentrations of acid mixtures: concentrations of acid mixtures (%) 1-50, 2-55, 3-60, 4-63.

Table 1. Change in the decomposition coefficient of

Row №	*Decomposition coefficient K, %*	residue, C, %	time, τ, min.	Row №	*Decomposition coefficient K, %*	residue, C, %	time, τ, min.
1	34	50	2	12	68,6	66,4	21,5
2	36	55,6	2,1	13	69	50,4	30
3	41	60,3	2,2	14	71,2	51	31
4	53	50,4	6	15	74,5	65,7	32
5	54,5	55,6	6,2	16	75	50,3	60
6	57	60,4	6,5	17	78	56,1	62
7	57,4	50,3	10	18	80,3	65,8	62,4
8	58,1	55,7	10,3	19	81	50,5	100
9	59,5	61,2	10,7	20	84	56,6	101
10	61	50,2	20	21	89,6	67,3	102
11	64,5	55,8	21,1				

Regression model of the dependence of the degree of fragmentation on the density and time for the problem under consideration using the tool "Regression" in MS Excel

$$K = 29,53371 + 0,39218C + 0,374854\tau$$
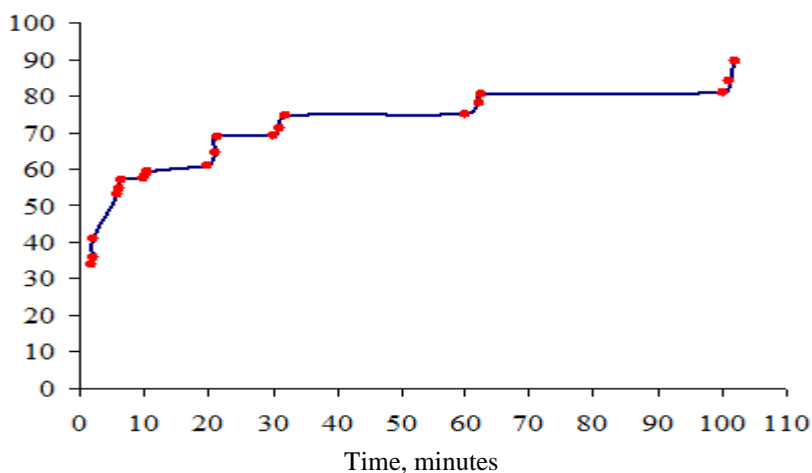
taken in the form.

Time, minutes
Figure.2. The degree of fragmentation depends on time

Estimation of model accuracy. The y actual values of the y_i variables differ by up to $\tilde{y}_i$ quantities from the values of the $e_i = y_i - \tilde{y}_i$ 4 variables calculated on the model. This quantity is an absolute approximation error for each indicator. But these quantities cannot be compared with each other. Thus, if the error in one indicator is 5 and in the other 10, it does not mean that in the latter case, the model gives a bad result. Therefore, in order to make the estimates comparable, A_i relative estimates are considered (ratio of e_i tendencies to y_i actual values (in percent)). If "tendencies can be both negative and positive, then tendencies are definitely taken into account [13-14].

$$A_i = \frac{|y_i - \tilde{y}_i|}{y_i} \cdot 100\% , \quad i = 1,2,\ldots,n \text{ is called the}$$

relative approximation error. To get a general idea of the accuracy of the model, calculate the average relative approximation error:

$$\overline{A} = \frac{1}{n}\sum_{i=1}^{n}\frac{|y_i - \tilde{y}_i|}{y_i} \cdot 100\% = \frac{1}{n}\sum_{i=1}^{n}\frac{|e_i|}{y_i} \cdot 100\%$$

If the value of the average relative approximation error does not exceed 10%, the obtained regression equation is considered good.

The calculations for the issue under consideration are given in Table 2.

Table 2. Relative approximation error

Row №	Experimental estimates of fragmentation	Don't break up prices on the model	Errors	*Relative approximation error*
1	34	49,89244073	-15,89244073	31,85340404
2	36	52,12613629	-16,12613629	30,93675733
3	41	54,0068695	-13,0068695	24,0837316
4	53	51,54872892	1,451271075	2,815338235
5	54,5	53,66303773	0,836962272	1,559662494
6	57	55,65795978	1,342040223	2,411227842
7	57,4	53,00892693	4,391073074	8,2836483
8	58,1	55,23915721	2,860842794	5,179012386
9	59,5	57,54609093	1,953909073	3,395381062
10	61	56,71824899	4,281751014	7,549159382
11	64,5	59,32679855	5,173201449	8,719839221
12	68,6	63,63385223	4,966147767	7,804254484
13	69	60,54522516	8,454774839	13,96439573
14	71,2	61,1553874	10,0446126	16,42473873

15	74,5	67,29529307	7,204706933	10,70610826
16	75	71,75162742	3,248372582	4,527245861
17	78	74,77598167	3,224018331	4,311569383
18	80,3	78,730073	1,569926995	1,994062669
19	81	86,82422389	-5,824223888	6,708063288
20	84	89,59137824	-5,591378245	6,240978043
21	89,6	94,16256237	-4,562562371	4,845410168

Mean relative approximation error

9,729237548

$\overline{A} = 9,73$ % The resulting regression equation is considered good.

Fisher's F-criterion is used to assess the significance (adequacy) of the model.

The actual value of Fisher's F-scale is calculated as follows:

$$F = \frac{R^2}{1-R^2} \cdot \frac{n-k-1}{k},$$

where n is the number of experiments; k is the number of factors (independent variables) in the model.

The table value of the F-criterion on the Fisher distribution tables is found to be F_{cl} To do this, there are α levels of importance (usually take $\alpha = 0,05$ α) and two degrees of freedom

$k_1 = k$ və $k_2 = n-k-1$ is given.

The actual value of the F-criterion is compared with the value of F_ (α, k_1, k_2). $F > Ftab_{cə}$ (α, k_1, k_2) the regression equation is considered important. Actual value of Fisher's F-scale:

The actual value of the F-criterion is compared with the value of $1F_c$ (α, k_1, k_2). $F > F_{tab}$ (α, k_1, k_2), (α, k_1, k_2), the regression equation is considered important. Actual value of Fisher's F-scale: $F = 28,86$

$\alpha = 0,05$; $k_1 = k = 2$; $k_2 = n-k-1 = 21-2-1 = 18$; $F_{tab}(\alpha, k_1, k_2) = 3,55$

$F > F_{tab}$ (α, k_1, k_2), hence, the regression equation adequately describes the process under consideration.

Conclusions

However, it is clear from the results of the research that by intensifying the decomposition process of phosphorus fertilizers and eliminating other shortcomings, the technological process, which has a greater advantage in this area, will be able to meet the requirements. At the same time, environmental problems will be solved by preventing harmful emissions into the environment during the long-term production process.

Result.

In this study, the effect of salts of silicon hexafluoric acid on the decomposition of apatite concentrate was studied and it was found that in the presence of these salts, superphosphate is modified with both potassium and nitrogen, and It was determined that the quality does not lag behind fertilizers.

In addition, on the basis of evidence obtained as a result of research, a model has been developed that reflects the regularities of changes in the degree of decomposition of raw materials under these conditions. This model reflects the dependence of the degree of fragmentation on the density and time of the components, which is important in the process, thus giving a kinetic description of the process, as well as the model obtained has been proven to adequately describe the process and can be applied to appropriate processes

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STRONG POSITION WHEN COMBINED WITH ARTISTIC SKILLS

Abstract: *In this article, the analysis of the works of the famous writer Utkir Hoshimov shows that the emergence of works of high art when the author's civic position is combined with image skills. The article consists of three conditional sections, the first part examines the author's journalism, the second part the narrative, and the third part the peculiarities of the novel, the uniqueness of the image and the reasons for it. It is also evident from the analysis of his works that there are many cases in which the author's prose is dominated by dramatic and tragic tones, which is considered by most literary critics to be lyrical in his work.*

Key words: *Lyricism, drama, tragedy, social position, truthfulness, artistic courage, national honor, genre identity, national pride, battalion scene, public psyche, national psychology.*

Language: *English*

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Introduction

Harmony of talent and social position

Artistic creation is valuable in that it examines the heart of a particular person and is able to describe soul to the extent that others feel it. It is very difficult to achieve authenticity in an image because human emotions are so complex, so subtle, and constantly changing. While human experiences and feelings are infinite, the ability to express them is limited. The level of talent of the creator is measured by the ability to explore the climates of the human heart. One can enter the human heart only through a narrow path called sincerity.

Utkir Hoshimov is a writer with his own artistic path. This trail has not only emerged because of experience or because of the way it has been shaped over the years. The ways to the hearts have always existed in the nature of the writer as the fruits of either fiery love or fiery hatred. And this aspect yields high aesthetic fruits when a firm human position is combined with artistic skill.

The peculiarity of many works of the famous writer Utkir Hoshimov is the leadership of lyricism in the image, the fact that he is a writer who is able to skillfully depict the emotional world of his heroes, is recognized by the people of the pen. Scholars have noted that the expressions in his works are attractive, the language is juicy, the landscapes and portraits are clear and vivid. O' Hoshimov is a talented person who can start the first sentence of each work in a way that captures the reader's attention. Although much has been written about the author's work, research has focused mainly on the manifestation of lyricism in his writings. In fact, the artistic scope of the artist is very rich and diverse, and the more dramatic, even tragic approaches, are no less important in his works [1.231].

U. Hoshimov always takes a firm position in the depiction of the realities of life. He sees the work of art not as a means of entertainment, but as an aesthetic weapon that ensures the triumph of goodness and beauty. It is well known that achieving goodness and creating beauty will not be easy. This requires a difficult and ruthless struggle. This situation requires the writer to heal his heroes in the fire of relentless struggles. That is why the writer is not indifferent to the images he describes with special affection. U.

Hoshimov always hardens the heroes of his works in serious tests. After all, the original image of each image is bright only in dangerous situations and conditions. That is why the writer does not run the images in his works in an easy way.

The firm social position was evident in the first works of Utkir Hoshimov. The writer, who began his career with journalism, firmly raised acute problems in society in his early articles. In 1968, the young writer received his first reprimand for the article "The name is also a sign of beauty" in the newspaper "Toshkent oqshomi", in which most of the names of places in the capital became Russian [2.285]. His articles "White Notebook of the Heart", "Violators of the Oath of Allegiance", "What do we say to generations?", "Where is the logic?", "State Secret" were among the serious achievements of Uzbek journalism [3.84].

In his speeches, articles, and a number of works of art, Hoshimov was one of the first to say that the so-called "Paxta ishi (Cotton Case)" or "O'zbek Ishi (Uzbek Case)" differed from the previous massacres of the Soviet regime in that it was directed against one ethnic grou⁸p. The author has written dozens of articles on the subject, delivered speeches from the rostrums in Tashkent and Moscow, and wrote a separate novel called *"Tushda kechgan umrlar".* The writer conveyed his thoughts to the public through fiery journalistic and influential artistic expression, evoking an attitude in it. U. Hoshimov's publicist speeches on raising the honor of the nation, protecting it from the spiritual aggression of foreigners, introducing itself to the nation have a special place in the development of national thinking.

The writer bravely and courageously fought for the high position of the Uzbek people not only in the USSR, but also in the world. From the rostrums of the XXII Congress of the Communist Party of Uzbekistan in 1990 and the XXVIII Congress of the CPSU, the writer was not afraid to tell the participants of the congresses, the whole world, the truth about the essence and perpetrators of the "Uzbek Case". It was this circumstance that caused the pleasant lyrical tone in his works to turn into a dramatic tone full of fiery hatred. This is reflected in the works of the writer in all genres and takes on the character of legitimacy.

A depiction of a tragic situation in a story

Utkir Hoshimov's "*Dehqonning bir kuni* (One Day of a Farmer)", "*Dehqonning bir tuni* (One Night of a Farmer) ", "*Yanga* (Sister-in-law)", "*Nega*? (Why?) "," *Muhabbat* (Love) "," *Urushning so'nggi qurboni* (The Last Victim of the War) "," *O'zbek ishi* (The Uzbek Case) " works reveal to the most hidden aspects how difficult and cruel problems of life, dangerous social situations leave a deep mark on the human psyche. In these works, the author does not think of social, domestic, moral problems and dangerous situations, but describes in a bubble way in the example of the fate of living people, situations that exist in life but are not seen or noticed by others.

In the story "The Last Victim of the War", the author rightly points out that the social cataclysm, financial hardship and poverty in life have brutally tested human spirituality on the example of an ordinary Uzbek family. At the beginning of the story, *"A dry table covered with a gray bed, stained with molasses, an earthenware plate that had just been emptied, and a wooden spoon with a burnt handle looked ugly to his eyes. But he carelessly waved his hand and threw his cap on the table*". This part draws the reader's attention to the fact that the life of the Shoikroms is unpresentable. It is natural that in the eyes of a man who has not rested for a long time due to the worries of war, the worries of endless life, and who is always in the throes of deprivation, his life, which is in fact poor and worthless, looks even more bleak. Although the play does not say why the household appliances look so ugly to Shoikrom's eyes, it is clear from the background of the text, from the description of every detail, that this is the reason for the lack of interest. Depending on his level, the reader may blame Shoikrom's wife or himself for such mismanagement of the household, or explain the reason in a different way. Importantly, the images in the story do not leave anyone indifferent, they encourage you to react and evaluate them.

Shoikrom's thoughts: *"Immediately he saw the same plate, the spoon with the burning band, and sighed again. "Such a miserly" he thought, cursing his wife. She was scrimpy and got even more scrimpy when life got hard"* mean that in real he is a light-hearted person. The mood in the play is realistic, as if unpleasant things are repeated over and over again when you are under the pressure of difficult thoughts.

The fact that everything looks unpleasant to Shoikrom's eyes is further emphasized in later episodes of the story. It is these places that make the reader think. *"The poor man will not get what he plants, and he will have many children," thought Shoikrom with disgust. "It would be better for me to go to war and die than to die today ..."* is not because he hates his children, but because it is the inner rebellion of a kind, mercy man out of helplessness and hopelessness. In the story, the episode: *"God gave me three girls in a row, wondering if they can be abandoned,"* shows in addition to the depressed mood of the protagonist, the Uzbek man also looks at the girl with some contempt. The endless worries of marriage, the despair that bends a person and makes him unable to see the bright things in life, are clearly reflected in the image of Shoikrom.

The protagonist's anxious thoughts, the turmoil in his spiritual world, and the causes of his uneasiness in nature is understood from such expressions: *"It's midnight, and the environment is quiet. Only in the distance does the dog howl "* or *" He turned around and went under the walnut. When he saw that one end of the wall on the other side had been torn down, and that soil had been poured under it, his heart sank. It was as if someone was staring at the flaw in the wall.*

Both the hissing of the walnut branches in the wind and the dust of the wall spilling under his feet seemed suspicious and frightening, and he immediately turned back. Feeling that Shoikrom is preparing to embark on some risky endeavor makes the reader anxious.

It should be noted that the story is written from beginning to end in a sad tone, the plot of the work is full of not only dramatic, but also tragic situations. Because the destinies reflected in the play, the conditions that gave rise to these destinies, were completely in mourning. The sound of wartime sounds like the sound of bullets. The sound of gunfire, on the other hand, brings no joy, only sorrow and grief. The perfect transfer of this vital fact to the story served to increase the impact of the work [4.93].

The story makes one believe how complex life is, that it is impossible to say an opinion about a person and his actions that would fit all situations. In order to assess the nature of the image of Khadija in the work, it is necessary to look carefully at her attitude to the child in the cradle, her husband, mother-in-law, the places where the behavior of the household is described. Even then she is stubborn, at the same time, kind, gentle to her husband and children, but fortunately, it is impossible to make a firm decision about the good or bad of this woman. Hard life, poverty is a test for everyone, and for some, satiety and prosperity are also a test. Not everyone can pass this test at once. The original human qualities manifest themselves in such situations.

Shoikrom is a man of thought by nature, a thoughtful man. Although this fact is not emphasized anywhere in the story, the general rhythm of the image allows us to draw the same conclusions about it. The image in the play: *"Shoikrom turned his face and gritted his teeth so as not to slap his wife"* vividly reflects the mood of the protagonist. The impossibility, the invisibility of the way of salvation, makes one savage. Shoikrom hates himself for not knowing about his sick brother for ten days, and at the same time tries to understand his wife, who is jealous of food from his mother: *"Who knows, she maybe wanted to give it to himself in the morning".* The young man's anger is neither harsh, nor merciless, nor evil. But the texture of his spiritual world is much more trustworthy because it is not from the requirements of faith, but from the possibilities of circumstances. Therefore, when his mind trembles when he thinks of revenge on the thief, he does not break his promise.

The story is very impressive about the mood of the protagonist in this situation: "He was doing very fast, his body was sweating, but he did not notice it, he just repeated one word: *"I don't care, if will be shooted".* Shoikrom does not understand that it is not necessary to fight evil in an ugly way. Man cannot serve good without forming a position higher than evil and wickedness in himself. That is why the young man, who was a master, a kind son, a sincere brother, a father

like in the brochure, became a murderer without knowing it, without wanting it, without even thinking about it. Again ... to the murderer of his mother ... It is better, readers think, contemplate, and look for ways out of the complexity, confusion, and incomprehensibility of human relationships. Because in this way a vital point of view, a moral point of view is formed in a person.

In the story, the words told by Aunt Umri: *"On Thursday I went to Kamil powwow's house. He said: If you drink a cup of sheep's milk for breakfast every day, it will be as if you are not in pain".* served as a litmus test that clearly showed the spiritual world of the mother and son. The mother expects a self-supporting idea from Shoikrom. But what kind of idea can come out of a helpless boy who looks dark in the eyes of the world? Thinking about why Aunt Umri couldn't ask her son for strawberries makes one react.

Poverty, deprivation hardens a person's heart, deprives him of love. One has to think about whether one can ask for strawberries for Shone'mat from a son who can't give his mother the food he knows he has. It is necessary to try to evaluate the behavior of Aunt Umri in this regard. At the same time, there is an ethical view that theft is bad in any situation. Aunt Umri stole. Well, even for a sick son. Everyone who tries to evaluate a mother's behavior deeply feels how difficult it is to judge someone's actions, how difficult it is to understand a human being and evaluate his or her actions. Is Aunt Umri a sinful thief or a selfless hero? Perhaps someone points to war as the cause of misfortunes in the work and its consequences, such as poverty, misery. Perhaps some accuse Shoikrom of greed and revenge, while others blame Khadijah for the tragedy. The important thing is not to identify the killer, but to understand the feelings of the people portrayed in the play, not to be indifferent to the human destinies portrayed in the story, to treat them reasonably.

From the title of the work, the author seems inclined to convey in the story the idea that war is to blame for the death of the mother. But in reality it is not. The story is valuable in that it provides a basis for different approaches. Today's ethics, the possibility of a new approach to the literary text, the fact that the analysis is based on aesthetic and moral principles rather than the social direction, allows us to draw other conclusions. It is also possible to draw unusual conclusions in the present period, when it is understood that the real life of a true work of art begins after the writer has left it. From the work, the reader can also objectively find artistic meanings that the writer did not impose on him at all. The story of "The Last Victim of the War" makes it possible.

The story serves to reach of the notion that war is not only on the fronts, it does not only kill with bullets, but also thousands of miles away from the battlefields, in an unexpected way that can kill a person in an unimaginable way, there is no trace of justice and

humanity in its image. From the book, it becomes clear that the so-called war, invented by mankind, can kill a person. When these feelings and conclusions are transferred to the reader, when they become the property of his heart, the writer achieves his goal.

U. Hoshimov's story, called "The Uzbek Case", is characterized by a sharp spirit and inner intensity. As the name suggests, the story describes the repressions against the Uzbek people in the last years of the Soviet era. It was noted that Utkir Hoshimov's works that reflect the attitude to such an unfair approach to the Uzbek people are great in number.

The author's story "The Uzbek case" was the result of such a state of mind and mood. This story differs from other works of the author in this genre in terms of style, in which the stage, the show is the leading feature. The author gives very little space to the author's speech. From the beginning to the end of the events, the artistic intention of the artist is absorbed into the speech, behavior and spiritual experiences of the characters. The work gives the reader the impression that he is sitting in the auditorium and watching the events with his own eyes. The author behaves very objectively in the process of depiction, restrains the emotions that are stirring his heart, presents the mood of the protagonists in a natural way. Even in the interpretation, the author's coldness and impartiality seem to bore the reader.

The story is given through the eyes of Koryagin, an "investigator on special cases" sent to repress the Uzbek people. Literary experience shows that this is a very cunning and very subtle method. Because how can a person who came with completely bad intentions think objectively about the life of the Uzbek people? The action and circumstances reflected in the plot of the story due to the skill of the writer, the conclusions drawn are presented in the form of Koryagin's views, attitudes, through affirmation through denial. While depicting the lifestyle, customs and spiritual world of the Uzbek people through the eyes of Koryagin, the writer allows the reader to look at the life of the hero through his own mediation. The writer uses such a method that Koryagin reveals the image of himself and the nation to which he belongs by memorizing secrets concerning both himself and his family and wife. This work is done so naturally that as a result, from the beginning to the end of the work, an important inner tone is preserved in the image, in which the integrity, the artistic consistency, continues in unison. Artificiality and violence are not allowed.

Novel-scale interpretation of socio-ethical issues

Utkir Hoshimov's short stories, such as "Cho'l havosi", "Shamol esaveradi", "Bahor qaytmaydi", Kvazarlar", "Ikki karra ikki -besh", "Dunuoning ishlari", and novels "Nur borki, soya bor", 'Ikki eshik orasi", "Tushda kechgan umrlar" are tend to be motivational, dramatic and even tragic tones. The writer did not try to confuse the readers with light-hearted events and lie about life, because he always remembered his high responsibility to the readers. The writer treats the characters in his works harshly. His writings reflect that everyone has a destiny according to what they actually deserve in life. For example, the writer could have saved the hero of the story "Bahor qaytmaydi" Alimardon Turaev. But then this work would have lost much of its influence. Because the writer has shown the domestic and spiritual-moral world of this image so deeply that the reader perceives the image of the hero's destruction as the only logical conclusion.

A similar approach is observed in the image of Ran in the novel "Ikki eshik orasi". The fact that this woman, who reluctantly betrayed herself, her husband, and her child Muzaffar during the war, will be punished according to her deeds, is brutally shown by the fact that she died waiting to hear for a word from her son.

In a number of his works in later years, the author has had a creative experience in covering a story from different angles, reflecting the different attitudes of different people, thus achieving a deeper understanding of his artistic intent by different readers. This image was used in the author's famous works, such as "Dunyoning ishlari", Ikki eshik orasi", and continued in the novel "Tushda kechgan umrlar".

The author's novel "Tushda kechgan umrlar" is the result of such an approach that combines such a huge love and innumerable hatred. The writer seeks to illuminate from the inside every image depicted in the novel, or to effectively reflect how deeply their psyche is plunged into darkness. The characters in the work are not just labor or war heroes, but artistic heroes. That is, they are living people. They are individuals who have their own religion, worldview, character, lifestyle and destiny. In the novel "Tushda kechgan umrlar", the writer, when bringing an image into the realm of the image, first of all, he tries to make the reader feel his inner essence. Every event, big or small, is represented by the inner experiences of the heroes.

Its tragic essence is evident from the first images in the novel. Novel starts with such expressions: ***"Autumn is like a patient on his deathbed. The sick leaves groan underfoot".*** Words like "death", "sick", "patient" in this sentence - a sign that there will be many unpleasant situations in the course of events. In the first image, the word "shroud" is also mentioned twice. In one place, in the form of an analogy, it is said, ***"The earth is covered with a white mist like a shroud",*** and in another place, it is used as, ***"as if the snow was trying to wrap the sky in a shroud"***. It is natural that these expressions have a strong effect on the reader's emotion, arousing an unpleasant mood in him.

The characters of Rustam, Khayriddin, Temur, Shahnoza, Dilya, Sanjar in the novel "Tushda kechgan umrlar" are people who can attract the reader's attention, even the episodic characters who are always involved in the image. These images are remembered and attracted attention not because of their labor

courage, scientific achievements, wise words, but because of their personality traits [6.326].

The actions and experiences of Rustam, who is pure in thought, truthful and virtuous, captivate the reader. There is a great human sincerity in his relationship with his comrades-in-arms Temur and Khayriddin, in his love for Shahnoza, in his pity for his mother, in his grief for his father, who was a victim of injustice. His nature is enlightened. Rustam is a person who feels the feelings of others and tries to understand someone. It can be said that the play depicts all the painful aspects of the world through the fate of Rustam. This noble young man, who hates such vices as indifference, indifference, turning away from the truth for the sake of self-interest, is portrayed in a whirlpool of suffering throughout the work.

The novel depicts the hero's psyche especially during the Afghan war, convincingly. Utkir Hoshimov has long been known for his unique approach to the image of war. In the story "The Last Victim of the War", the author had a psychological approach to war and human destiny, its manifestation in the concrete human psyche and destiny. He focuses more on drawing the process of mental vibrations that occur in human nature as a result of war than on the battalist scenes in fight. That is why Rustam's painful thoughts about the Afghan war are portrayed, especially vividly and memorably. The fact that war, in essence, serves evil, in fact can turn even the most just, compassionate, and honest person into a ruthless and evil person, is very impressively expressed in the example of the image of Rustam. When reading some images of the protagonist's life related to the Afghan war, the reader is amazed that the writer's reality is clearer and more impressive than the reality of life.

The writer tries not to make the protagonist behave in a way that is not in keeping with his nature, as he sees each character he captures as a living person with his own destiny, not an artistic image. In the works of the author, he shows the emotional lines of the heroes, who are by nature an emotional and impressionable nation - the Uzbeks, often through subtle gestures, imperceptible signs. In this way, without interfering, it allows the reader to independently evaluate the thoughts, experiences, and behaviors of the images [7.265].

In the novel "Tushda kechgan umrlar", when Rustam visits Shahnoza's house, a delicate point is described in the scene of her mother's meeting with her daughter-in-law: "*I could see at her eyes staring at Shahnoza, "Is there any news?" "*. Anyone familiar with the work can feel the question in the mother-in-law's eyes and how difficult it is for a young couple who have not been able to find the answer to this question for a long time. The author manages to sympathize the reader with the rhythm of the image without stopping on this topic .

The experience of being able to give a concise, memorable picture of the nation's psyche has not yet been sufficiently formed in Uzbek literature. Probably, this is due to the fact that the nature of our compatriots is shy, timid, prone to loneliness, the desire to hide the inner essence from prying eyes. In any case, in Uzbek literature there are not any works such as E.Zolya's "Hamal", M.Sholokhov's "Peaceful Don", A.Nurpeisov's novels "Blood and Sweat" that vividly reflect the most important aspects of the psychology of the nation, showing the mood of the masses. There are many works in our national literature that deeply describe various aspects of the individual human psyche, and research in this direction is becoming increasingly effective.

But there is a lack of experience in being able to give the image of the masses, or in the attitude of the masses, to find and depict the most characteristic, the most universal, the brightest lines in the spirituality of the members of the nation. For the first time in the novel "Ikki eshik orasi", Utkir Hoshimov was able to convey the aspects of the national spirit in a vivid way. In the image of the Oqsoqol (an elder man of the district)marrying his daughter-in-law Zuhra to a man she liked, the original characters of the nation, first in the image of the Oqsoqol and then in the image of many participants of the same situation, were brightly illuminated in a trembling state that overwhelmed the human psyche [5.289].

A similar situation exists in the novel "Tushda kechgan umrlar". In fact, this scene is not as bright and embossed as in the previous novel. However, the wedding scene in Qatortal in "Tushda kechgan umrlar" is no different from the previous novel in terms of the scale of manifestation of the spiritual qualities of the Uzbek nation. If in "Ikki eshik orasi" the psychology of the masses is astonishingly bright with its height, nobility, and glory, and proud enough to fill the soul, in the wedding episode of his novel, it is reflected with all disgust that lowly spiritual qualities such as rudeness, cowardice, and submissiveness are becoming a national symbol. Hundreds of people remained silent in the face of the carelessness of a single drunk Russian, and the image of cowardness was a vivid example of the "high" results that Uzbeks can be educated like "sheep" [5. 286].

The language of the work is also very distinctive, juicy, impressive and musical. The writer was able to convey the language of each character in the novel with very subtle distinctions. Although the work was written in everyday form and the author's participation was indirect, U. Hoshimov managed to speak all the heroes in their own language, to express their feelings in a unique way [10. 258].

The novel "Tushda kechgan umrlar" is a work rich in dramatic, more precisely, tragic scenes. The tragedy is evident in the interpretation of all the main characters of the work. In fact, the tragedy in the work has a unique look and meaning in each image. They can never be equated. For example, the tragedy in the interpretation of some heroes can be attributed to social

conditions, political situation and system. As for the image of the Commissar, he is portrayed by nature as a man doomed to live a disgusting life. His tragedy is that he doesn't know how low he is, he doesn't even want to know. The writer thus reveals the tragedy of such a person who put dark days on the heads of dozens of people. In general, such a direction, where dramatic interpretation is combined with tragedy, occupies a leading place in the work of one of the most mature writers of our time, Utkir Hoshimov. The works of Utkir Hoshimov, who was able to combine his responsibility to the people and the country with high artistic skills, play a special role in the formation of national thinking.

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QR – Issue   QR – Article

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THE NEED TO DEVELOP AN INNOVATIVE DEVELOPMENT STRATEGY OF THE ENTERPRISE AND ITS COMPONENTS

Abstract: This article discusses the need to develop an innovative development strategy of the enterprise and its components, the strategy is grouped according to the influence of external factors, the structure of the components of the strategy is developed. The PDCA method was proposed in the organization of enterprise management, and a three-tier model of development strategy based on the PDCA management method was developed.

Key words: Innovative development, strategy, innovative potential, components of strategy, "PDCA" management method, innovative protection, innovative imitation, innovative expectation.

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Introduction

Today, the organization of innovative processes in manufacturing enterprises, the level of their implementation and development, the role of innovative products produced by the country's residents in the national and global markets, the perfect development of the company's innovative development strategy are important conditions for stable economic development of the countries in the world. In addition, the company's innovative development management strategy directly lays the groundwork for further strengthening its national and international competitiveness.

Enterprises operating in various sectors and industries of the economy, including small, medium and large types of industrial enterprises, have developed innovative development strategies based on their levels of economic development and the specifics of the organization of production processes [1].

Taking into consideration this situation, it is necessary to develop an innovative development strategy to address existing problems, ensure sustainable innovative development of the industrial enterprise in the long run, to achieve the goals and objectives of innovative activities.

Research methods. Systematic analysis, induction and deduction, analysis and synthesis, comparative and econometric analysis and forecasting methods were used in the research process.

Analysis and results.

The results of research in the economic literature on the need to develop innovative development strategies of industrial enterprises and the mechanism of its implementation show that the implementation of this type of development program in the enterprise is characterized by long-term sustainability of enterprise management and innovation efficiency. In particular, the analysis shows that the innovative development strategies of industrial enterprises are based on the following principles [2]:

- priority of innovative activity; continuous improvement; management flexibility; proportionality (balanced); structural; integration; the presence of a desire to develop innovative potential; risk management; completeness and reliability of information; production and technological cooperation.

Based on the above principles, the development of innovative development strategy in the enterprise will increase the efficiency of management of

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innovative activities of the enterprise and lay the foundation for the transition of the economy of the country and its sectors to the path of innovative development. The following factors that affect innovation should be taken into account in the process of developing an innovative development strategy in the enterprise: the level of macroeconomic development of the country and the state of the industry; local market conditions, consumer behavior; world market conditions; economic policy pursued in the country, including the conditions created for the development of innovative activities; the investment attractiveness of the country, in particular, the sector in which the enterprise operates, etc.

Based on the results of our research, we consider it appropriate to divide the innovative development strategy into "offensive" or "defensive" types (see Figure 1).
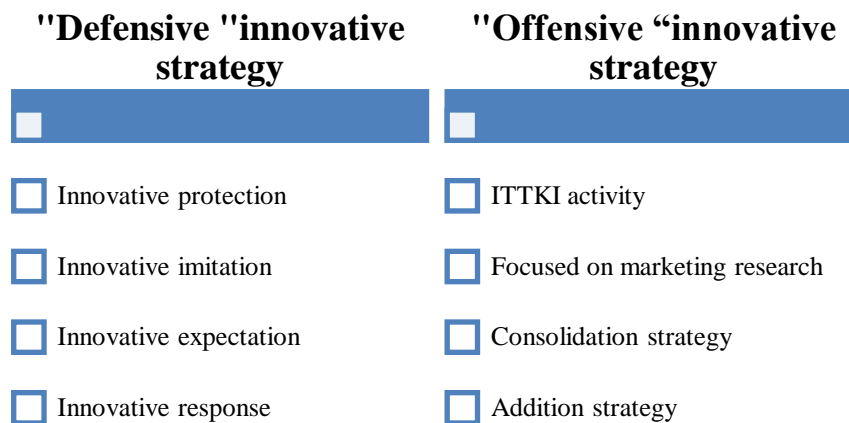

"Defensive "innovative strategy

☐ Innovative protection

☐ Innovative imitation

☐ Innovative expectation

☐ Innovative response

"Offensive "innovative strategy

☐ ITTKI activity

☐ Focused on marketing research

☐ Consolidation strategy

☐ Addition strategy

Figure 1. Grouping of innovative development strategies based on the influence of external factors [7]

The following can be included in the "protective" innovative development strategy:[7]

- "Innovation protection" strategy. This type of strategy is usually manifested in industries where protectionist policies are used to support local producers in emerging and developing market economies. Under such conditions, it provides protection from relatively high-quality products that are imported, similar to the product produced by a local manufacturer. That is, it seeks to make extensive use of spiritually outdated innovations in developed countries;

"Innovative imitation strategy"; "Innovative expectation strategy"; "Innovative response strategy". Innovative strategies "offensive" are common in the practice of large enterprises, which are grouped as follows [5]: "ITTKI activity" strategy; Innovative development strategy "Market-oriented research"; "Consolidation" strategy; "Inclusion" strategy. The results of our research show that the development of any innovative development strategy is carried out in the following stages [6]:

- modeling the current situation;
- identify changes that need to be made;
- implementation of measures aimed at solving the goals and objectives;
- make appropriate changes to the strategy of innovative development based on the results achieved.

Also, any innovative development strategy consists of the following components [7]:

- problem identification;
- setting goals and objectives;
- implementation of innovation strategy;
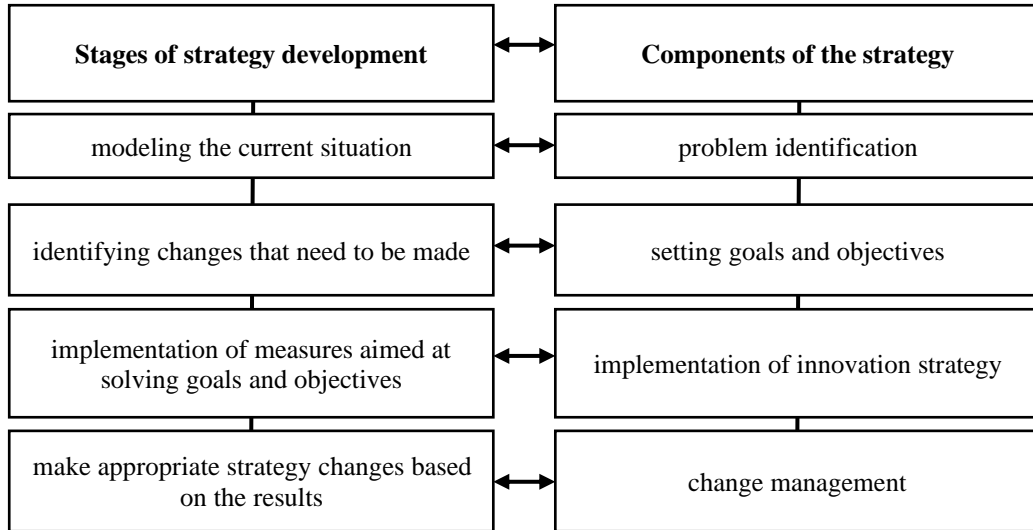- change management.

Figure 2. Correlation of the stages of strategy development with the components of the innovative development strategy [8]

The analysis shows that the stages of development of the innovative development strategy of the enterprise and its components should be in proportion to the order shown in Figure 2. We believe that this will increase the level of perfection of the enterprise's innovative development strategy.

The PDCA (Plan-Do-Check-Act) method is one of the most effective ways to reduce barriers to the performance of their functions by interconnected enterprises in the organization of management as a result of the formation of modern theories in the field of management in the economic literature. (Figure 3). This method of organizing the management of the enterprise serves to increase the efficiency of its internal environmental management. In the PDCA method, the management of the internal environment of the enterprise is carried out by dividing the production process into the following four periods (cycles) [9]:
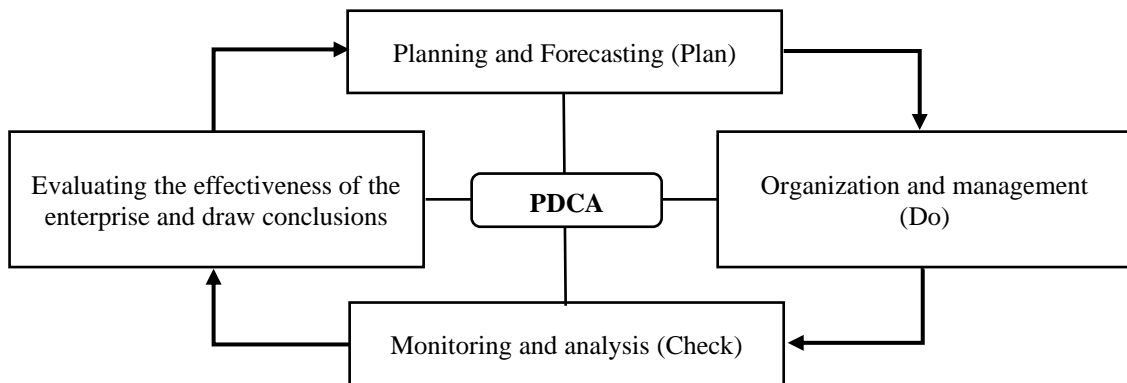

Figure 3. "PDCA" method of enterprise management [11]

- planning and forecasting (Plan);
- organization and management (Do);
- control and analysis.
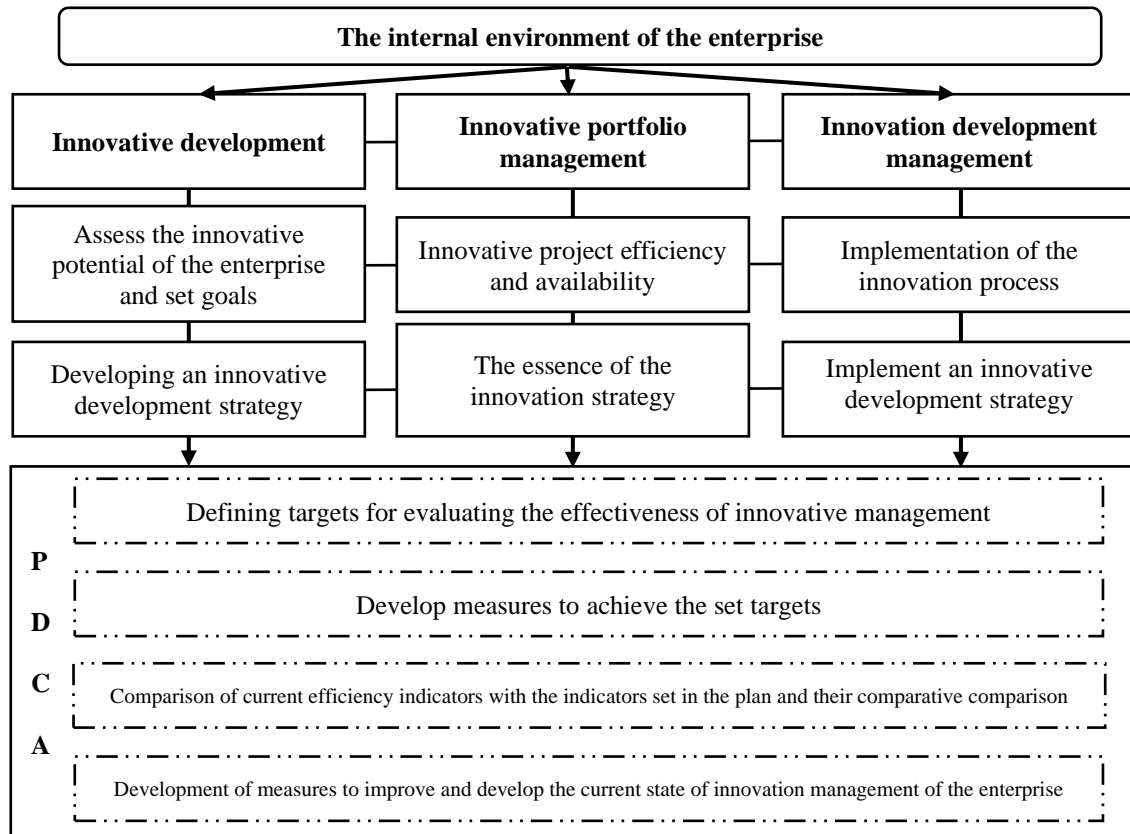- evaluate the effectiveness of the enterprise and draw conclusions (Act).

Figure 4. A three-tier model of industrial enterprise innovation development strategy based on the PDCA (Plan - Do - Check - Act) management approach

Created by the author

In developing a strategy for innovative development of the enterprise, we propose to use the method of "PDCA" (Plan - Do - Check - Act) in the organization of the management of the internal environment of the firm. At the same time, a three-tier model (Figure 4) was formed, in which the goals of the enterprise's innovative development strategy are directly related to the internal environment.

Conclusion

Development of an innovative development strategy of the enterprise on the basis of the proposed method allows to achieve the following results: organizational divisions of the enterprise; innovative development strategy of the enterprise; increase the efficiency of innovative activities; ensuring timely and quality implementation of the goals and objectives set in the innovative development strategy of the enterprise; increase the level of competitiveness of the enterprise, including the strengthening of its position and position in the market; sustainable development of the innovative potential of the enterprise; The effectiveness of the implementation of innovative projects in the enterprise improves.

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THE IMPORTANCE OF A NEW PROFESSIONAL EDUCATION SYSTEM IN SMALL BUSINESS DEVELOPMENT IN UZBEKISTAN

Abstract: In this article, the importance of the vocational education system in the development of small business, the issue of training mature personnel for this field is also considered as one of the key factors. They also studied the current challenges and problems facing the newly established system of vocational education in Uzbekistan and made recommendations.

Key words: vocational education system, vocational schools, colleges, technical schools, gross domestic product, national income, profits, small business entities.

Language: English

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Introduction

Decree PF-5313 "On measures to radically improve the system of general secondary, secondary special and vocational education" adopted on January 25, 2018, identified a number of problems and shortcomings in the system of secondary special vocational education. the need for radical reform was justifiably criticized. In most vocational colleges, without the law of supply and demand of the labor market, the trained personnel did not meet the requirements of the respective employers, and the training process was completely different from the modern technologies used by employers in the current production process.

The National Qualifications Framework, which operates in more than 130 countries around the world, has not been introduced into the system of secondary special and vocational education, and educational programs for junior specialists have been adopted by UNESCO, due to non-compliance with the "International Standards of Education", the training of local staff prevented them from finding their place in the international labor market.

For this reason, the successful experience of developed foreign countries was studied in cooperation with 14 international organizations.

214 leading international experts from Germany, Switzerland, Korea, Turkey and China and a number of foreign countries and organizations such as UNESCO, British Council, German International Cooperation Agency, Asian Developmennt Bank, European Education Fund, Turkish Cooperation Agency, China University Association were involved. the necessary conclusions were drawn.

After that, the Decree of the President of the Republic of Uzbekistan dated September 6, 2019 No PF5812 "On further improvement of the system of vocational education" was adopted, which set the transition to a completely new, continuous system of vocational education in Uzbekistan.

"In the new vocational education system from the 2020-2021 academic year 340 vocational schools, 147 colleges and 143 technical schools have been established". Vocational education institutions are divided into 3 categories based on their goals and objectives[1].

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[1] Decree of the President of the Republic of Uzbekistan dated January 25, 2018 No PF-5313.

The first category - 340 vocational schools, provides primary vocational education to young people from 9th grade graduates on the basis of programs that meet the 3rd level of the International Standard Classification of Education. At the same time, 9th grade graduates are accepted and trained on the basis of 2-year educational programs. Vocational schools train personnel in simple occupations such as family business, gardening, construction, services, animal husbandry, poultry, beekeeping, fishing. Three meals a day and scholarships for students provide social support to children from low-income families, as well as help them focus on vocational training.

The second category - 147 colleges, which train secondary vocational education professionals on the basis of programs corresponding to the 4th level of the international standard classification of education. These colleges, which operate in the system of ministries, departments and organizations, accept students from the 11th grade graduates of secondary schools and train specialists for specific jobs for up to 2 years, depending on the level of complexity of the profession.

This system is a "dual" system of education, which has a good effect in the German experience.

The third category - 143 technical schools, integrated with the higher education system on the basis of educational programs corresponding to the 5th level of the International Standard Classification of Education, operates in the system of ministries, departments, organizations.

At the same time, educational programs for at least 2 years in full-time, part-time and part-time forms of education for junior bachelors, integrated with the bachelor's degree programs of higher education, will be introduced. Most importantly, after 2 years of study, college graduates can be admitted to study on the basis of an interview in the profession they studied at the relevant higher education institution. This system will serve to further increase the coverage of school graduates with higher education.

The introduction of new continuing professional education in Uzbekistan imposes a huge, large-scale, complex tasks on the representatives of the industry. In particular, the competent state bodies responsible for education will have to perform the following tasks:

- Development of a number of legal documents governing the organization and management of the process of vocational education, amendments to existing legislation, in particular, the development of legal and regulatory documents governing the methodology of management of technical colleges;

- Development of updated forms of standards at the request of employers, development of new teaching methodologies, new textbooks and literature, modern innovative educational technologies and assessment systems, complete updating of textbooks, books and textbooks, e-learning resources, innovative, digital educational technologies, connection to the network of open electronic resources, processing, publication and distribution of educational literature;

- full training of managers and teachers working in the new system of vocational education, specialists, managers with extensive experience in the field of production, services, agriculture, small business and entrepreneurship, information and communication technologies, the needs of masters of industrial education , replenishment through the involvement of engineers-technologists, agronomists and masters.

It should be noted that the organization and development of vocational education is directly related to the development of small business in the country. Small business provides about 60% of the country's GDP, a third of industrial output, 98% of agricultural output and half of investments. In many regions, 70-90 percent of exports are to small businesses. In the first 6 months of 2019, the number of business entities increased by 60,000[2].

Therefore, the main focus of the newly established vocational education system should be on the training of qualified junior specialists in the small business sector.

As of June 1, 2019, the number of small businesses operating in the country amounted to 304.2 thousand, an increase of 24.1% over the previous year. In the first 6 months of 2019, 54,259 small businesses were registered, an increase of 28,628 or 2.1 times compared to the same period in 2018. (In the first six months of 2018, a total of 25,631 small businesses were established). Of the 54,259 newly established small businesses, 64.8% were LLCs, 22.6% were private enterprises, 12.3% were family enterprises, and 0.3% were unitary enterprises.

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[2] From the materials of the video conference chaired by the President of the Republic of Uzbekistan on 23.07.2019 on the issues of further development of small business and entrepreneurship: http://uza.uz/posts/58574

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Number of small business entities (2019)

Other activities 43200
Health 5800
Information and communication 7200
Transportation and storage 14500
Accommodation and meals 22900
Agriculture, forestry and fisheries 26000
Construction 31600
Industry 64700
Trade 88300

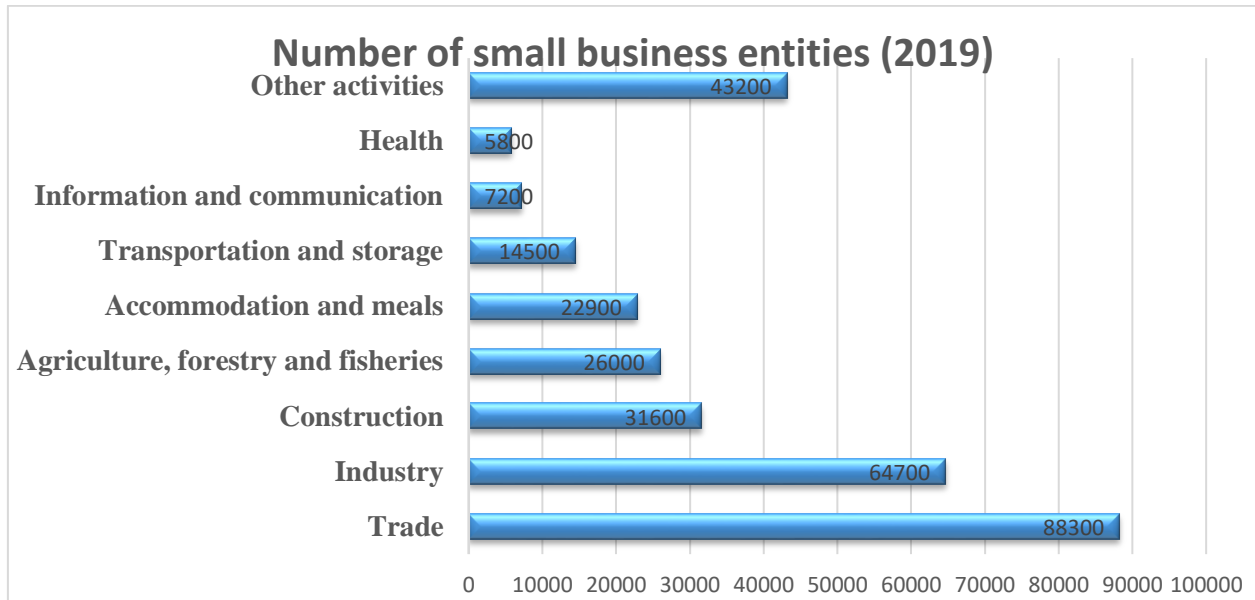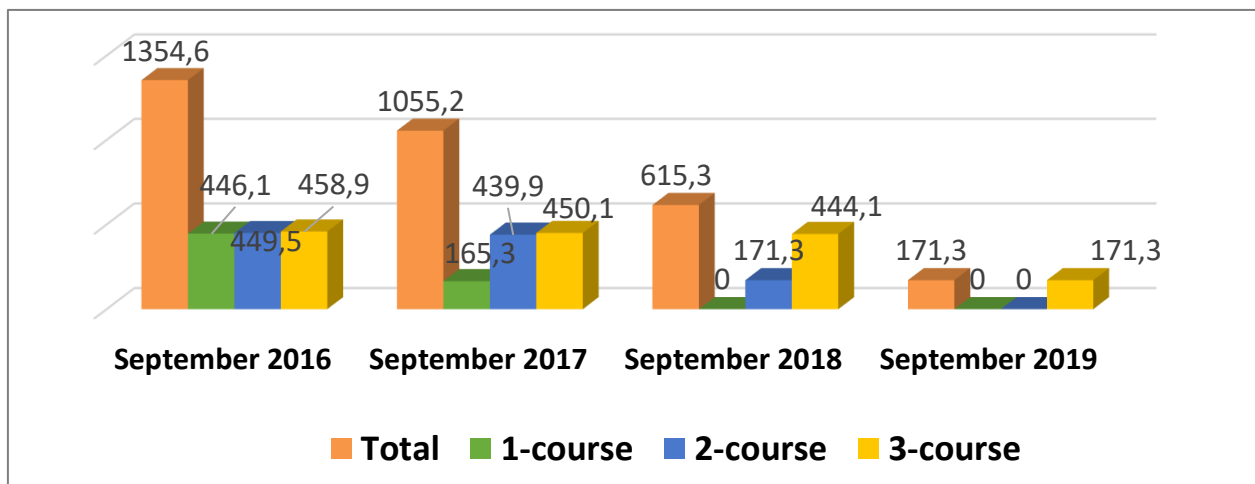0 10000 20000 30000 40000 50000 60000 70000 80000 90000 100000

Figure 1. Sectoral indicators of 304.2 thousand small businesses operating.

As a result of the analysis, we can see that out of a total of 304.2 thousand small businesses, 88.3 thousand (29%) are in trade, 64.7 thousand (21.2%) in industry, 31.6 thousand (10.3%) in construction. 26.0 thousand (8.5%) agriculture, forestry and fisheries, 22.9 thousand (7.5%) habitat and food, 14.5 thousand (7.5%) transportation and storage, 7.2 thousand (2.3%) in information and communication, 5.8 thousand (1.9%) in healthcare, 43.2 thousand (14.2%) in other sectors[3].

In this regard, when comparing the staff of the Republican system of secondary special, vocational education, we will be able to assess the supply and demand for junior specialists in the labor market.

Figure 2. The contingent of personnel trained in professional colleges in the 2016-2019 academic year (thousand people)

September 2016: 1354,6 (Total), 446,1 (1-course), 449,5 (2-course), 458,9 (3-course)
September 2017: 1055,2 (Total), 165,3 (1-course), 439,9 (2-course), 450,1 (3-course)
September 2018: 615,3 (Total), 0 (1-course), 171,3 (2-course), 444,1 (3-course)
September 2019: 171,3 (Total), 0 (1-course), 0 (2-course), 171,3 (3-course)

■ **Total**   ■ **1-course**   ■ **2-course**   ■ **3-course**

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[3] Report of the Chamber of Commerce and Industry of the Republic of Uzbekistan for the first half of 2019: https://chamber.uz/uzk/news/4789

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Table-3. Sectoral analysis of the contingent admitted to the 1st course in 2016[4]

№	Name of fields	Number of students	Percent
1	Transport	63 344	14,3
2	Light industry	55 403	12,5
3	Information technology and communication	52 718	11,9
4	Agriculture	47 412	10,7
5	Business and economics	41 862	9,5
6	Services	38 382	8,7
7	Health	34 588	7,8
8	Construction and utilities	30 673	6,9
9	Education	26 289	5,9
10	Other industries	15 667	3,5
11	Energy	9 122	2,1
12	The art of acting and acting	8 184	1,8
13	Food industry	7 636	1,7
14	Water management	4 360	1
15	Legal proceedings	7 337	1,7
	Total:	**442977**	**100**

From the analysis of the above data, it can be seen that the secondary special.

The number of vocational colleges where the system of vocational education is fully operational is more than 1,450, and the number of students is 1 million. More than 300 thousand. In 2016-2017, about 443 thousand students were admitted to the 1st stage of professional colleges from the same academic year.

In particular, 88,300 (29%) enterprises operate in the trade sector, which is the largest branch of small business in the country, while only 3,377 (0.7%) students are enrolled in the trade of Commodity. Conversely, a maximum of 52,700 (12%) students were admitted to the vocational education system in the field of information technology per year, but the number of small businesses in the field of information and communication, which are consumers of trained personnel, was only 7,200 (1.9%).

From the above, it can be concluded that the system of training for small business is formed disproportionately. It does not take into account the real need for staff and its composition. In addition, there are serious problems with the provision of modern material and technical base and quality raw materials to academic groups consisting of compulsory secondary special, vocational education and the growing number of students.

At a time when small business occupies an invaluable place in the world economy, it is important to take appropriate measures to develop it in Uzbekistan. This is because there is almost no industry in the world that does not use goods and services developed by small businesses. In Spain, for example, the share of small business is 30 percent in the construction industry, 31 percent in industry, and 80 percent in agriculture. In Germany, the dominant sector of the economy is the automotive industry, not large chemical or metallurgical concerns, but small and medium-sized businesses. They account for 99.7% of all commercial enterprises.

In developed developed countries, small business income is analyzed, while in the United States, 35 percent of net income and 30 percent of exports come from small businesses. In France and Germany, almost 50 percent of GDP comes from small businesses, while in Italy, about 95 percent of national income[5].

Extensive reforms are being carried out in Uzbekistan to support entrepreneurship. In particular, based on the tasks set by decrees and resolutions of the President of the Republic of Uzbekistan, government decrees and other legal acts, further increase of entrepreneurial activity of the population, unimpeded

[4] Based on data from the Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan.
[5] PROSTOBIZ.UA "Развитие малого и среднего бизнеса в мире" https://www.prostobiz.ua/biznes/razvitie_biznesa/vse_novosti

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solution of problems at all stages of entrepreneurial activity, legal protection of legitimate interests of entrepreneurs A number of systematic measures are being taken to promote their activities, train them in the basics of business, increase the legal awareness of business entities, fight corruption in business and other areas.

The third priority of the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021 provides for the continuation of institutional and structural reforms aimed at reducing state participation in the economy, protecting and strengthening the rights of private property, stimulating the development of small business and private entrepreneurship. In particular, the reduction of state participation in the regulation of socio-economic development, decentralization and democratization of public administration, expansion of public-private partnerships, increasing the role of non-governmental, public organizations and local governments are also among the priorities.

In Uzbekistan, as in many Western countries, the creation of new jobs is considered an important factor in the economy. According to media reports, 3/2 of new jobs are created by small businesses. This, in turn, is important in times of crisis as well as in depressive zones. In this way, small business serves to reduce social tensions in society by helping millions of people survive in difficult situations.

Uzbekistan's economic reforms are focused on reducing the number of unemployed, so businesses will be encouraged to create more jobs. About the fact that 50% of new small businesses will remain in operation for up to 3 years will serve to reward the deputy mayor in charge of this area.

It also shows that during 2010-2019, the dynamics of indicators on the management of the business environment and the creation of favorable conditions for small business is moving in a positive direction. In recent years, Uzbekistan has risen from 138th to 69th place in the World Bank's Doing Business ranking, which measures ease of doing business based on 10 indicators in 190 countries. The relevant resolution of the President of the Republic of Uzbekistan, adopted on February 5, 2019, sets the task to rise to 20th place in the ranking in 2022[6].

Today, there are a number of systemic and rigid problems that hinder the development of small business, and in a sense, efforts are being made to overcome them. In such an environment, small business managers are required to be very strong entrepreneurs, lawyers, economists, marketers and analysts in order to operate at a high profit without becoming a prey to the tax burden or bank loans.

Problems include; lack of funds for the purchase of modern and high-tech equipment, acquisition of land plots for business activities, the complexity of connection to engineering and communication networks, low access to long-term credit for small innovative manufacturing industries, production of products by small businesses lack of an effective mechanism for export to national and global markets, information systems, marketing, management, logistics, insurance company,. auditing firms, trading houses, consulting services, business centers and business incubators are still underdeveloped and still hinder the development of small businesses.

What we want to highlight through this article is another problem, which is the low level or lack of professional training of small professionals working in the small business sector.

The main consumers of personnel trained by the newly established vocational schools are small businesses. Therefore, the development of small businesses increases the need for quality personnel. Competition in the creation of jobs will serve to increase the quality of education and the development of partnerships.

Speaking at a meeting with young people in July 2021, the President said that in order to receive a school certificate, one must know a profession or occupation, henceforth it will be mandatory to have at least one profession or profession that is in high demand in the labor market. The list of such professions will be approved by the district and city governors, and students in grades 10-11 will be trained in the professions on the list. If these words become a legal force, all district and city mayors will have to worry about the development of small business, its analysis by sectors and its integration with education, and get into its problems and shortcomings. This requires marketing research on professional education services.

At the same time, the lack of integration of small business and educational institutions in Uzbekistan hinders the development of both enterprises and educational institutions. This, in turn, is reflected in the lack of good professionals in enterprises and the lack of modern material and technical base in educational institutions or their failure to improve on the basis of market requirements.

In conclusion, we answer the question "Should we develop a system of vocational education for the development of small business in Uzbekistan, or should we develop a small business to strengthen vocational education?"These two areas are closely intertwined, and the strengthening of one leads to the development of the other:

[6] А.Шовкатов, А.Акрамов, Д.Курбанова. "Малый бизнес как основной драйвер экономики: состояние, проблемы развития и предлагаемые меры стимулирования": http://uza.uz/posts/37987

- the development of a vocational education system is a much easier task at a time when structural reforms aimed at small business development are going through a very difficult process. Training of personnel with entrepreneurial skills can serve as a catalyst for the development of small business and individual entrepreneurship. For this reason, it is advisable to evaluate the performance of vocational education institutions through the indicators of economic benefits, applying to the system the experience of advanced European countries. In this case, the estimated professional staff and the amount of proceeds from the sale of developed goods and services should serve as an assessment indicator;

- marketing of educational services is not equally important in all regions of Uzbekistan. But the opportunities created for the gradual development of private ownership of educational institutions can serve to integrate education and production;

- based on world experience, it is necessary to strengthen the competitive environment in the market of educational services by privatizing the bulk of newly established vocational education institutions, as well as providing them with long-term, low-interest, sufficient targeted loans;

- vocational education should be given full freedom. Based on the analysis of the structure of demand for services in the field of education, it is possible to assess which professions should be trained in the future and to formulate curricula accordingly;

- in addition, special attention should be paid to the development of production and service sectors in each vocational education institution, based on its characteristics.

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THE COVID-19 PANDEMIC DOES NOT HAVE A DIFFUSION INDEX

Abstract: A simulation model of a model survey of respondents has been developed, the answers (in the form of numbers, that is, in the richest scale of relations) are modeled in the article [1] for a large number of participants, each of whom answers one of 5 questions about the state of physical and mental health during a session. pandemic COVID 19. As the response of the respondent, a number corresponding to one of 5 gradations of risks, equal to the model subjective response number from article [1], was used. We used the digital results of modeling according to the cognitive model from the article [1]. The analysis of model subjective responses in model surveys of individuals with COVID-19 has been carried out. 5 degrees of risk were identified and the stability of the corresponding average number of responses was found. The COVID-19 pandemic, as a process, does not have a diffusion index: it is shown that there is no expectation of a decline or an increase in the incidence in the respondents' answers.

Key words: COVID 19 pandemic, simulation model, imitation poll, diffusion index.
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ПАНДЕМИЯ COVID-19 НЕ ИМЕЕТ ДИФФУЗИОННОГО ИНДЕКСА

Аннотация: Разработана имитационная модель модельного опроса респондентов, ответы (в виде чисел, т е в наиболее богатой шкале отношений) смоделированы в статье [1] для большого количества участников, каждый из которых отвечает на один из 5 вопросов о состоянии телесного и душевного здоровья во время с пандемией COVID 19. В качестве ответа респондента использовалось число, соответствующее одному из 5 градаций рисков, равное модельному субъективному ответу-числу из статьи [1]. Использовались цифровые результаты моделирования по когнитивной модели из статьи [1]. Проведен анализ модельных субъективных ответов в модельных опросах индивидов, заболевших COVID-19. Выделены 5 степеней риска и обнаружена стабильность соответствующих им средних количеств ответов. Пандемия covid-19, как процесс, не имеет диффузионного индекса: показано отсутствие в ответах респондентов ожиданий спада или роста заболеваемости.

Ключевые слова: пандемия COVID 19 ,вакцинация, имитационная модель, имитация опроса, диффузионный индекс.

Введение

Пандеми́я COVID-19 — текущая пандемия, вызванная распространением коронавируса SARS-CoV-2. Вспышка заболеваемости вирусом впервые была зафиксирована в Ухане, Китай, в декабре 2019 года. 30 января 2020 года Всемирная организация здравоохранения объявила эту вспышку чрезвычайной ситуацией в области общественного здравоохранения, имеющей международное значение, а 11 марта - пандемией. Пандеми́я - необычайно сильная эпидемия, распространившаяся на территории стран, континентов; высшая степень развития эпидемического процесса. Пандемия является

наиболее опасной формой, то есть эпидемия, охватывающая подавляющую часть мира.

Для оценки текущего состояния пандемии COVID-19, результатов применяемых мер против роста заболеваемости используют опросы общественного мнения, необходимые в первую очередь для исследования динамики изменения показателей заболевших и выздоровевших. Для анализа динамики процессов эпидемии, а также для утверждения решений в сфере управления мерами борьбы с эпидемией используют субъективные ответы респондентов и вычисленные на данных ответов значения диффузионного индекса

ОПРЕДЕЛЕНИЕ. Диффузионный индекс - это показатель, отражающий восприятие отдельными участниками происходящих в экономике процессов тех изменений, которые носят как позитивный, так и негативный характер.

Основным свойством диффузионного индекс является возможность его применения в качестве опережающего индикатора делового или иного цикла. Мы ниже приведем вид диффузионного индекса, удовлетворяющий данному определению, но диффузионный индекс отклонений здоровья индивидов, не применимого в качестве опережающего индикатора будущих отклонений здоровья индивидов в худшую или в лучшую сторону. Пандемия дает такие ситуации, когда внутренняя информация не дает прогноза на будущее развитие пандемии. Наш индекс отклонений здоровья индивидов формально является диффузионным индексом, но не может быть применен для предсказания будущего развития пандемии. Такова реальная ситуация во многих странах, где принимаемые ими меры не дают эффекта, кроме вакцинации 70% населения. на примере из статьи [1] покажем вычислим индексы отклонений здоровья индивидов и отсутствие доводов о будущих отклонениях здоровья индивидов в худшую или в лучшую сторону.

С учетом субъективности ответов подобные индексы имеют чрезвычайно сильные предсказывающие свойства, выступают в качестве опережающих индикаторов, сильно коррелирующих с ключевыми параметрами цикла развития процесса. В основе построения диффузионного индекса - результаты опросов большого количества участников. Если диффузионный индекс разворачивается вниз после периодов роста, то динамика цикла процесса может вскоре тоже развернуться вниз. В обратной ситуации, достижение диффузионным индексом минимума после падения с последующим разворотом наверх, является одним

из признаков предстоящего восстановления процесса. По опыту статистики американской экономики, диффузионный индекс позволяет предсказать максимум цикла роста за 7 месяцев и минимум цикла роста — в среднем за 3 месяца. Он достаточно эффективно отслеживает динамику экономических циклов, выступая опережающим показателем: если индекс начинает падать после периода прироста, скорее всего бизнес-цикл из стадии роста переходит к стадии спада. Разворот диффузионного индекс вверх после снижения может предсказать начало этапа восстановления. Благодаря тесной корреляции диффузионного индекса с экономической динамикой многолетних статистических данных, его можно использовать даже с целью прогнозирования значения валового внутреннего продукта»[1].

Перечень ключевых факторов экономики, субъективное отношение к которым изучают в ответах респондентов в США, приведен в статье[1].

Исходные данные

Исходными данными служат модельные матрицы значений отклонений 3-х z–переменных $Z^{(t)}_{m3}=Y^{(t)}_{m3}C_{33}$ [1], t=1,…,5. отклонения $z^{(t)}_{ij}=z^{(t)}_{ij}$ - 0 интерпретируется как субъективная оценка телесного состояния здоровья опрашиваемого из группы респондентов №t от нормального состояния (когда отклонение равно 0). Модельные матрицы значений отклонений получены в примере применения Когнитивной модели цифровизации формулы жизни индивида [1], они отличаются от матриц значений отклонений, полученных в статьях. [2-13]. Интервал отклонений делится на 5 подинтервалов. Каждому подинтервалу поставлена степень риска (шанс не заболеть, риск не выздороветь) и количество индивидов, не заболевших или заболевших с риском не выздороветь. Кроме одного шанса не заболеть индивид имеет 4 градации степени риска не выздороветь. Этим мы фиксируем 1 **шанс не заболеть** и риски заболеть COVID-19 в легкой, средней, тяжелой и крайне тяжелой степени тяжести (Таблица 1). Этим понятным степеням тяжести больного тела соответствуют 4 степени риска, в терминах которых проделан анализ данных в 5 группах модельных числовых ответов. На практике такие числа не определяются респондентами, но оценить свое телесное здоровье в шкале из 5 градаций он может.

Ниже будут подсчитаны изменения количеств заразившихся коронавирусом (заболевших от коронавирусной инфекции в разной степени риска не выздороветь) в Республике Казахстан [1].

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[1] https://spravochnick.ru/ekonomika/ diffuzionnyy_indeks/

В отличие от традиционных 3-х вопросов в наших модельных данных содержатся цифровые данные, являющиеся ответами на 5 вопросов. Они соответствуют 5 степеням риска (смотрите ниже).

Анализ модельных субъективных ответов в модельных опросах индивидов, заболевших COVID-19

Мы ниже рассматриваем новый фактор – изменение количества заразившихся коронавирусом (заболевших от коронавирусной инфекции) в Республике Казахстан [1].

В отличие от 3-х вопросов в наших модельных данных содержатся цифровые данные, являющиеся ответами на 5 вопросов. Они соответствуют 5 степеням риска (смотрите ниже).

Кроме шанса не заболеть различают риски заболеть COVID-19 в легкой, средней, тяжелой и крайне тяжелой степени тяжести (Таблица 1). Этим степеням тяжести соответствуют степени риска кроме индивидов, заболевших COVID-19 (с ухудшающими телесным и духовным здоровьем таблица 6 ($t=1$)), имеются здоровые индивиды, имеющие разные z-отклонения от нормального состояния $z=0$.

Все индивиды 1-ой группы (здоровее +заболевшие участвуют в модельном опрсе) имеют 5 разных степеней риска не заболеть, выздороветь или не выздороветь:

Высокий шанс не заболеть (1 из 3) 11($z \in (+0,1072;+ 1,7274)$)

Низкий риск не выздороветь: (1 из 24) 1 ($z \in (-0,1025;0)$)

Высокий риск не выздороветь (1 из 12) 2 ($z \in (-0,3;-0.1025)$)

Средний риск не выздороветь (1 из 3) 10 ($z \in (-2.5;-0.3)$)

Очень высокий риск не выздороветь – 0 ($z \in (-3.0;-3.5)$)

Эта наша шкала рисков составлена для Таблиц 2 и 3 результатов модельных данных ([1],Таблицы 6 и 7), интерпретируемых нами как результаты субъективных ответов модельных опросов всех индивидов: как здоровых, так и заболевших. Происходит имитация большого количества участников, каждый из которых отвечает на 5 вопросов о состоянии телесного и душевного здоровья. В качестве ответа используется один из 5 вариантов модельных субъективных ответов наших модельных «опросов». Результаты моделирования по когнитивной модели из статьи [7] мы интерпретируем как моделирование субъективных количественных ответов наших индивидов при модельных опросах. Результаты моделирования по когнитивной модели [7].

Наша шкала идентична шкале рисков SMRT-CO из методической рекомендации[1]

https://www.vmeda.org/wp-content/uploads/2020/04/covid-190406.pdf

В нашей шкале рисков выделены 5 интервалов значений z–отклонений: ($z \in (+0,1072;+ 1,7274)$), ($z \in (-0,1025;0)$) , ($z \in (-0,3;-0.1025)$), ($z \in (-2.5;-0.3)$), ($z \in (-3.0;-3.5)$), соответствующие 4 градациям из шкалы рисков SMRT-CO: высокий шанс не заболеть, низкий риск не выздороветь, высокий риск не выздороветь, средний риск не выздороветь, очень высокий риск не выздороветь.

С учетом такой субъективности (при $t=1$) шанс не заболеть равен 11, а средний риск не выздороветь равен 10 и только 1 равен высокий риск не выздороветь. Соотношение субъективных оценок равно 11:11, т е ответы индивидов не отражают единое восприятие как позитивного, так и негативного характера их здоровья. Это – отражение существования факторов, знание о которых недоступно населению. Хотя в СМИ имеются множество сообщений, комментариев о таких факторах. Мы не приводим формулу диффузионного индекса, ибо его значение не дает индивиду как позитивного, так и негативного про свое здоровье. Такой индекс стал бы наиважнейшим среди всех существующих индексов.

Во 2-ой группе модельного опроса индивиды (здоровее+заболевшие) имеют 5 разных степеней риска не заболеть,выздороветь или не выздороветь:

Высокий шанс не заболеть (1 из 3) 11 ($z \in (+0,0993;+ 1,4592)$)

Низкий риск не выздороветь: (1 из 24) 0 ($z \in (-0,0011;0)$)

Высокий риск не выздороветь (1 из 12) 2 ($z \in (-0,2599; -0,0012)$)

Средний риск не выздороветь (1 из 3) 11 ($z \in (-0,4016; -1,5702)$)

Очень высокий риск не выздороветь – 0 ($z \in (-2.0;-2.5)$)

В 3-ей группе модельного опрса индивиды (здоровее+заболевшие) имеют 5 разных степеней риска не заболеть, выздороветь или не выздороветь:

Высокий шанс не заболеть (1 из 3) 12 ($z \in (+0,2131;+ 1,6270)$)

Низкий риск не выздороветь: (1 из 24) 0 ($z \in (-0,0011;0)$)

Высокий риск не выздороветь (1 из 12) 2 ($z \in (-0,2167; +0,2342)$)

Средний риск не выздороветь (1 из 3) 10 ($z \in (-0,4016; -1,5702)$)

Очень высокий риск не выздороветь – 0 ($z \in (-2.0;-2.5)$)

В 4-ой группе модельного опроса индивиды (здоровее+заболевшие) имеют 5 разных степеней

риска не заболеть, выздороветь или не выздороветь:

Высокий шанс не заболеть (1 из 3) 11 (z ∈(+0,2342;+1,9928)

Низкий риск не выздороветь: (1 из 24) 1 (z∈(-0; 0,0659))

Высокий риск не выздороветь (1 из 12) 2 (z∈(-0,0775; +0,2076)

Средний риск не выздороветь (1 из 3) 10 (z ∈ (-0,4016; -1,5702)

Очень высокий риск не выздороветь – 0 (z ∈(-2.0;-2.5))

В 5-ой группе модельного опрса индивиды (здоровее+заболевшие) имеют 5 разных степеней риска не заболеть, выздороветь или не выздороветь:

Высокий шанс не заболеть (1 из 3) 11 (z ∈(+0,2342;+1,9928)

Низкий риск не выздороветь: (1 из 24) 2 (z∈(+0,2701; +0,2704)

Высокий риск не выздороветь (1 из 12) 1 (z∈(-0,1337; +0,0000)

Средний риск не выздороветь (1 из 3) 10 (z ∈ (-0,4016; -1,5702)

Очень высокий риск не выздороветь – 0 (z ∈(-2.0;-2.5)

Средние числа ответов (11,1,2,10,0), соответствующие 5 степеням риска, имеют субъективные нечеткие левые, правые границы своих интервалов значений ответов (Таблица 1), что является следствием наличия естественных различий субъективных ответов индивидов-респондентов.

Доминирующими по количеству ответов являются 2 степени рисков – 11 и 10, остальные не репрезентабельны: (11,1,2,10,0). Соотношение между количествами ответов 2-х степени рисков «высокий шанс не заболеть» и «средний риск не выздороветь» равно 11:10. Практическое равенство 11≈10 показывает наличие факта: ответы индивидов не отражают восприятие респондентами как позитивного, так и негативного развития их здоровья. Значит существуют факторы, знание о которых недоступно респондентам, т.е. населению. Пандемия Covid-19 (высшая степень развития эпидемического процесса) управляется извне популяции респондентов и их управляющих. Результаты субъективных ответов модельных опросов всех индивидов: как здоровых, так и заболевших нельзя использовать для вычисления значения диффузионного индекса пандемии Covid-19. Здесь выполняются все условия приведенного выше определения диффузионного индекса, но нет различия в количествах позитивных и негативных ответов об телесном здоровьи индивида.

Степени риска и стабильность соответствующих им средних количеств ответов

Обычно в других типах диффузионного индекса отличается существенно Обычно ответы на вопросы отражают изменения, имевшие место по сравнению с предыдущим состоянием, и основываются на показателях, имеющих заметные отличия. В статье отмечено существенное отличие двух сценариев. «Случай многомерного уравнения когнитивных смыслов изменчивостей z-переменных без правой части (соответствует варианту, когда все значения изменчивости y–переменной с дисперсией λ_1, равной 0.000) отличается существенно».

Наш тип диффузионного индекса основан на ответах индивидов, не отражающих как позитивного, так и негативного развития их здоровья. Поэтому нами не может быть выведена формула диффузионного индекса, но нами показано существование неизвестных факторов знание о которых недоступно респондентам, т е населению.

Таблица 1

Степени риска	Среднее число ответов	Границы (a;b) интервала субъективных оценок отклонения телесного здоровья от 0				
Номера групп =>		t=1	t=2	t=3	t=4	t=5
Высокий шанс ++	11	(+0,1072; + 1,7274)	(+0,0993; + 1,4592)	(+0,2131; + 1,6270)	(+0,2342; +1,9928)	(+0,2342; +1,9928)
Низкий риск +	1	(-0,1025; 0.0000)	(-0,0011; 0.0000)	(-0,0011; 0.0000)	(-0.0000; +0,0659)	(+0,2701; +0,2704)
Низкий риск -	2	(-0,3000; -0.1025)	(-0,2599; -0,0012)	(-0,2167; +0,2342)	(-0,0775; +0,2076)	(-0,1337; +0,0000)
Средний риск - -	10	(-2.5000; -0.3000))	(-0,4016; -1,5702)	(-0,4016; -1,5702)	(-0,4016; -1,5702)	(-0,4016; -1,5702)
высокий риск - - -	0	(-3.0000; -3.5000))	(-2.0000; -2.5000))	(-2.0000; -2.5000)	(-2.0000; -2.5000))	(-2.0000; -2.5000)

Таблица 2

	t=1			t=2			t=3		
	z 1	z 2	z 3	z 1	z 2	z 3	z 1	z 2	z 3
1	1,0154	1,5157	2,2492	-1,4668	-1,0439	0,1619	0,5480	0,4892	0,2349
2	0,2582	-0,0559	-0,7421	**-0,0011**	**-0,3095**	**-0,9191**	-0,9279	-0,7237	-0,0861
3	0,7469	0,5966	0,1114	-0,7973	-0,9985	-1,1956	1,3521	1,5575	1,6232
4	**-1,6929**	**-1,4792**	**-0,6301**	1,5870	1,4631	0,8183	-0,8904	-0,8952	-0,6804
5	**-0,5224**	**-0,8157**	**-1,2640**	-0,6249	-0,4295	0,1144	1,5421	1,2451	0,2692
6	**-0,7320**	**-0,5791**	**-0,0922**	0,0993	-0,0173	-0,2729	1,3581	1,2193	0,6026
7	**-1,4377**	**-1,2148**	**-0,4119**	-1,1479	-1,4672	-1,8096	0,2131	0,4310	0,8081
8	0,6244	0,9176	1,3400	-0,4958	-0,6588	-0,8560	-1,0040	-1,3990	-1,9273
9	**-1,5672**	**-1,4632**	**-0,8626**	-0,9811	-0,4801	0,7576	0,3220	0,3557	0,3411
10	0,5410	0,8677	1,3775	**-0,4016**	-0,2986	0,0062	-1,5787	-1,3065	-0,3704
11	**-0,8603**	**-0,8287**	**-0,5494**	1,3443	1,4663	1,3690	0,9795	0,5285	-0,6101
12	**-0,3652**	**-0,0102**	**0,7836**	**1,4592**	1,5399	1,3319	**-0,2167**	**0,3281**	**1,4600**
13	**-0,2474**	**-0,3001**	**-0,3418**	1,2035	1,3192	1,2451	-0,5982	-1,1395	-2,0592
14	1,4771	1,3138	0,6188	1,0529	1,2062	1,2440	-0,5460	-0,5180	-0,3249
15	**-0,7767**	**-1,0377**	**-1,3582**	0,8823	1,0555	1,1756	-1,6438	-1,6252	-1,1742
16	**-0,1025**	**-0,3338**	**-0,7654**	1,1699	1,1871	0,9264	-1,3533	-1,5660	-1,6458
17	**-0,2844**	**-0,5519**	**-1,0092**	0,0882	-0,4761	-1,6141	0,3488	0,4631	0,6012
18	1,6317	1,7029	1,4327	-0,8300	-0,9263	-0,9077	0,5606	0,7382	0,9482
19	0,1072	-0,0705	-0,4490	**-1,5702**	-1,0999	0,2258	-0,4934	-0,2183	0,4500
20	1,2530	1,2732	0,9976	0,8807	0,7038	0,1321	0,2342	0,0871	-0,2627
21	**-1,1626**	**-0,8986**	**-0,0836**	-0,2599	-0,6038	-1,2184	0,7351	1,0297	1,4271
22	0,9116	1,0635	1,1343	-0,8561	-0,9344	-0,8735	0,7451	0,6362	0,2332
23	**-0,5426**	**-0,9231**	**-1,5386**	-1,2219	-1,1912	-0,8227	**1,6270**	1,5047	0,8531
24	1,7274	1,3113	0,0531	0,8871	0,9938	0,9813	-1,3132	-1,2220	-0,7107
	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000

Таблица 3

	t=4			t=5		
№	z 1	z 2	z 3	z 1	z 2	z 3
1	-0,8582	-0,6149	0,0824	-1,6080	-1,4584	-0,7575
2	-0,6500	-0,3732	0,3379	-1,1196	-1,4235	-1,7423
3	1,3681	1,2520	0,6777	1,8692	1,6417	0,7210
4	0,1060	0,0221	-0,1704	1,1062	0,7356	-0,2760
5	0,4296	0,7590	1,3022	-1,0630	-0,9117	-0,3447
6	1,1989	1,4152	1,5411	**-0,1337**	**-0,5312**	**-1,2835**
7	-0,8706	-0,6515	0,0013	0,4234	0,5080	0,5684
8	-0,8543	-0,8743	-0,6986	0,6643	0,5529	0,1653
9	0,4571	0,0398	-0,9004	0,6251	0,1980	-0,8041
10	-1,0774	-1,1215	-0,9372	0,9305	0,9776	0,8364

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11	-1,0102	-1,4656	-2,1117	1,1465	1,2515	1,1704
12	1,5023	1,5212	1,1800	**0,2701**	0,5569	1,0560
13	-0,9534	-1,1117	-1,1846	0,3591	0,8403	1,7016
14	-1,0634	-0,5832	0,6345	0,3879	0,5849	0,8767
15	-1,5442	-1,8012	-1,9203	1,2997	1,4586	1,4454
16	1,8693	1,5979	0,5902	0,3618	0,4963	0,6712
17	**1,9928**	1,8957	1,2017	-1,6975	-1,5465	-0,8201
18	0,2209	0,3288	0,4864	-1,9859	-1,7327	-0,7318
19	**0,0659**	-0,0207	-0,2085	0,3633	0,4037	0,3920
20	0,7341	0,9083	1,0680	**0,2704**	0,2248	0,0663
21	-0,5253	-0,2023	0,5688	-0,2502	-0,5240	**-1,0025**
22	-0,6679	-0,4874	0,0376	-0,4659	-0,3328	0,0479
23	**-0,0775**	**-0,5635**	**-1,5048**	-0,6166	-0,3544	0,3195
24	0,2076	0,1309	-0,0733	-1,1369	-1,6154	-2,2754
	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
	1,0000	1,0000	1,0000	1,0000	1,0000	1,0000

Отсутствие в ответах ожиданий спада заболеваемости

По этим субъективным данным нельзя выявить никакого ожидаемого увеличения\уменьшения числа заболевших (не заболевших). Шансы равны 50% на 50%. Население субъективно не может оценить ситуацию в будущем: новости настолько часто меняюся (в СМИ, в YouTube, от органов местной власти, от работодателей).

Огромное влияние на текущую ситуацию оказывают внешние неуправляемые факторы. А неизвестные управляющие процессом заражения факторы (по некоторым сведеним) не восприняты большинством населения при наличии множеств разнородной информации (в СМИ, в YouTube, от органов местной власти, от работодателей) как за вакцинацию, так и против вакцинации индивидов с разными степенями телесного здоровья.

Прогнозное соотношение здоровые: выздоровевшие 11:11 принуждает всех к сильным методам профилактики среди населения.

Наши значения отклонений здоровья не имеют предсказывающих свойств, не выступают в качестве опережающих индикаторов, сильно коррелированных с ключевыми параметрами вакцинации населения РК.

Заключение

Во 2-ой ситуации с ковидом модель выявила меньшее количество индивидов 14+9+10+9+10=52 с ухудшившими телесным и духовным здоровьем и 14+9+11+10+14=58 выявила с улучшаюшимися телесным Две ситуации с пандемией COVID 19 можно интерпретировать как фазы, когда фаза роста заражения вирусом переходит в фазу вакцинации

индивидов, количество выздоровившихся индивидов медленно увеличивается и появляются сильные проявления бодрости духа и тела [1].

Мы провели имитацию ответов (в виде чисел, т.е. в наиболее богатой шкале отношений) большого количества участников, каждый из которых отвечает на 5 вопросов о состоянии телесного и душевного здоровья. В качестве ответа использовался один из 5 вариантов модельных субъективных ответов наших модельных «опросов». Использовались цифровые результаты моделирования по когнитивной модели из статьи [7]. Мы интерпретируем как моделирование субъективных количественных ответов наших индивидов при модельных опросах.

Мы рассмотрели разные степени субъективной оценки индивидом тяжести своего заболевания и соответствующее этим степеням количества заразившихся коронавирусом (заболевших от коронавирусной инфекции) в Республике Казахстан [1]. Нашли все надлежащие определению диффузионного индекса, но не нашли тренда как позитивного, так и негативного развития степени заболеваемости респондентов.

Пандемия Covid-19, наверное, управляется извне популяции респондентов. Результаты субъективных ответов модельных опросов всех индивидов: как здоровых, так и заболевших нельзя использовать для вычисления значения диффузионного индекса. Пандемия covid-19, как процесс, не имеет диффузионного индекса. На текущую ситуацию оказывают сильные внешние неуправляемые факторы. При этом неизвестные управляющие процессом заражения факторы не восприняты большинством населения при

наличии множеств разнородной информации (в СМИ, в YouTube, от органов местной власти, от работодателей) как за вакцинацию, так и против вакцинации индивидов с разными степенями телесного здоровья. Прогнозное соотношение здоровые: выздоровевшие 11:11 принуждает всех к сильным методам профилактики среди населения.

Наши индексы отклонений здоровья не имеют сильных предсказывающих свойств, не выступают в качестве опережающих индикаторов, а пандемия covid-19 – серьезный вызов.

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CONTEMPORARY CONSTITUTIONAL PRINCIPLES AND MECHANISMS OF REALIZATION OF HUMAN RIGHTS AND FREEDOMS IN THE INFORMATION REALM IN UKRAINE

Abstract: The article draws an attention to the analysis of specific juridical mechanisms that exist in the Ukrainian legislation, in relation to different types of information rights and freedoms, and the possibilities of their realization. The spectrum of informational rights and freedoms in Ukraine, and their fixation features in the Ukrainian legislation are studied. There are contradictory aspects in the mechanisms of realization of informational rights, and such contradictions may arise at the intersection of liberal freedoms and national security issues. The general conclusion is that it's not enough to make a list of rights and freedoms regarding information, its circulation, use, consumption, managing, protection, and so on. There's an obvious need to provide a set of appropriate mechanisms, in order to make all these rights available. Judicial protection is defined in the constitutional legislation of Ukraine as a self-sufficient mechanism for ensuring human rights and freedoms. Simultaneously, it is only one of the elements in the system for ensuring these rights. Taking into account the need of implementation of constitutional guarantees, it's impossible to ignore the primary role of the state executive bodies and local self-government. Everyday activities of these bodies must create necessary conditions for citizens to fulfill their rights and legal interests in the information realm. The realization of human and civil rights and freedoms takes place through the channels of executive power, in cooperation with civil institutions. And the judicial protection is applied in cases where a violation of the law has already occurred, while the main task of the executive branch of state power is to create conditions under which such violations will not occur, or will be minimized.

Key words: information, law, Ukraine, constitutional principles, human rights and freedoms, legal mechanisms.
Language: English

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Introduction

The Constitution of Ukraine, defining a set of human rights in the field of information, is based on international legal standards in this field and reproduces relevant provisions conceptually and substantively. The Constitutional provisions of Clauses 32 and 34 are key points to defining human rights and freedoms in the field of information in Ukraine. Particularly, the Constitution of Ukraine defines the right to freedom of beliefs, freedom of speech, and the right to information itself, according to which everyone is guaranteed the right to freedom of thought and speech, to free expression of their views and beliefs. Everyone has the right to freely collect, store, use and disseminate information orally, in writing or otherwise at their discretion. Part 3 of Clause 34 of the Constitution contains an exhaustive list of grounds for restriction of this right.

Abovementioned right, which is established by the Clause 34 of the Constitution, may be deemed as "active" in its content, as it determines a certain degree of behavior. To implement it, a person should take an active action. This human right can be understood as an opportunity to act in any way, and in any form, to become a participant in the realm of information relations, except when there are direct prohibitions by law. Another group of human rights in the field of information, established by the Constitution, are aimed at limiting information interference in the private affairs of a person by the state or third parties. These norms are mainly protective in relation to specific legal relations in the information sphere.

Along with that, in any state there should be provided all the necessary legal mechanisms to make all these rights and freedoms real enough, to make them workable and available. The term "ensuring the constitutional rights and freedoms of man and citizen" implies the existence of a certain system of their guarantee by state institutions. I.e. it is a question of existence: officially defined legal statuses of subjects of civil and administrative relations (including relations in the information sphere), competences of the corresponding power structures, institutions of public influence on the state power and other subjects, as well as tools of securing and protection, and other conditions for the actual realization of human rights and freedoms. In this aspect, all such means and institutions should be divided into so-called 'jurisdictional' (including law enforcement, administrative, judicial - all those, which should be directly involved in protection and defense on the basis of substantive and procedural law), and 'organizational' - aimed at creating the necessary

conditions in the working process of public authorities, to be able to perform the functions assigned to them.

The purpose of the study

The main objective of this research article is to achieve an understanding of the content of 'information rights and freedoms', which are declared by the Constitution of Ukraine, and to study what kind of legal mechanisms are existing to make these freedoms real in Ukraine, what features do they have in the information realm nowadays.

Theoretical and methodological framework

Methodology of the research is based on formal logical methods of analysis and synthesis, on a legal-comparative method, and an axiological approach. Also it's widely used a juridical-dogmatical method in the analysis of main categories of the information law.

Methodologically important, to clarify the common and different in the functioning of information relations in various societies and legal systems, is to draw some attention to previously published works dedicated to issues of 'new information order' inherent to current technological era. Among them it could be mentioned the works, which focused on contemporary social technologies of making consent (Bernays & Cutler, 1969), and the conscious and intelligent manipulation of the organized habits and opinions of the masses as an important element in democratic society (Bernays, 2005), (Lippmann, 2019). Among classical works we also find some approaches useful for this research, for instance, the reflections on state's nature (Hobbes, 2010) and basic human freedoms (Locke, 2006). The works of mentioned authors have found further reconsidering in such aspects as 'frontiers of justice' (Nussbaum, 2006), stability and social contract theory (Moehler, 2019), the status of Civil Society in the context of extraordinary powers implemented by the State (Stovpets, 2021), phenomena of freedom and justice in classical conservative and liberal interpretations (Borinshtein, Stovpets et al., 2021).

It's also important to take into consideration an experience of some countries and societies with a long history of building mass communications from ancient times to nowadays (Stovpets, 2019), their success in integrating the state into the complex of social relations (Stovpets, 2020), and accelerating effect of such integration on the way to global scientific and technological leadership (Svyrydenko & Stovpets, 2020). Another side of this research is connected with the analysis of important legal

sources, which contain profound principles and mechanisms of realization of human rights and freedoms in the information realm in Ukraine (Constitution, 1996), and gives a juridical classification of information itself (On Information, 1992), and defines the principles of international relations between Ukraine and European Union members on various matters of cooperation, including modern information sphere (Association Agreement, 2014). In this relation, as methodologically important there could be considered also those works, which pay attention to organizational and legal bases of Information security policy of Ukraine (Kormych, 2003), to the legal regulation of access to 'open information' (Kukshynova, 2012), to the legal-philosophic problems of state policy in respect of information society in Ukraine (Stovpets, 2012), to constitutional mechanisms of regulation of information relations that existed a decade ago (Kormych, 2013), to the bright and the dark sides of a new Information Reality (Stovpets & Stovpets, 2020).

The presentation of main ideas, results and discussion

Guarantees of the human right to non-interference in private life are based on Constitutional provisions, which in particular stipulate that: no one may be interfered with in his personal and family life, except in cases provided by the Constitution of Ukraine. The collection, storage, use and dissemination of confidential information about a person without his / her consent is not permitted, except as provided by law, and only in the interests of national security, economic well-being & human rights protection (Constitution, 1996: clause 32). The same article's norms determine the basic mechanisms for ensuring this right. The first of them is the right of a citizen to get acquainted in public authorities, local governments, institutions and organizations with information about himself, in case it's not a state or other secret protected by law. This right makes it possible to establish the very fact of collecting information about a person by public authorities and their officials, to determine their content, and to establish on this basis the degree of legality of such actions. Another mechanism is to guarantee judicial protection of informational rights: to refute inaccurate information about yourself and your family members; to claim the removal of any information about yourself and your family members; to demand compensation for material and moral damage caused by the collection, storage, use and dissemination of such inaccurate information.

Derived from the right to privacy is the right to secrecy of correspondence, as in fact this right establishes an additional guarantee of non-interference. In the Constitution of Ukraine this right is defined by a separate article, according to which everyone is guaranteed the secrecy of correspondence,

telephone conversations, other correspondence (Constitution, 1996: clause 31). The main mechanism for ensuring this right is the rule that exceptions to the right to privacy, telephone conversations, correspondence can be established only by the court in order to prevent crime or find out the truth during a criminal investigation, if otherwise impossible to obtain information. In other cases, public authorities may not violate the human right to respect for private and family life. The above-mentioned basic human rights in the information sphere are supported and extended by a number of other constitutional provisions. In particular, the political and ideological diversity of public life is guaranteed, and a censorship is prohibited (Constitution, 1996: clause 15). The inalienability and inviolability of human rights and freedoms in Ukraine are guaranteed (Constitution, 1996: cl. 21); the human right to respect for one's dignity is enshrined (Constitution, 1996: cl. 28).

However, certain preconditions for the emergence of contradictions are laid down in Section II of the Constitution, in its terminology. This is due to the fact that Ukrainian legal science practically does not accept the existing classification of terms in Western constitutional law to define "human rights". Thus, in English terminology the following concepts are used: 'rights' - to define the inalienable human rights (to life, liberty, etc.); 'freedoms' or 'liberties' - to define civil and political rights and freedoms; the term 'entitlements' - covers the economic and social rights granted by the state. In Ukrainian law, a single term "human rights" is used to cover all these notions (Kormych, 2003: 117). Thus, together with the already mentioned information rights and freedoms, the Constitution of Ukraine defines a number of rights that are informational in their object, but economic or social in their content. Above all, this is the rules, which guarantee the freedom of literary, artistic, scientific and technical creativity, protection of intellectual property, copyright, moral and material interests arising in connection with various types of intellectual activity (Constitution, 1996: clause 54). Every citizen has the right to the results of his / her intellectual and creative activity; no one may use or distribute them without his consent, except as provided by law.

Unlike many other categories of human and civil rights, the implementation of human information rights may well be ensured by the judiciary (Constitution, 1996: cl. 55). Information rights mostly belong to civil and political rights and freedoms (i.e. freedom of speech, right to receive information, right to privacy, right to secrecy of correspondence, prohibition of censorship). For the realization of civil and political rights it is sufficient to use only such legal mechanisms, as the correct application of constitutional norms by the courts, and well-developed sectoral legislation, combined with the adoption of a lawful court decision and its timely

implementation. Moreover, according to Part 3 of Clause 8 of the Constitution of Ukraine, constitutional norms are the norms of direct action. That means everyone is guaranteed to go to the court to protect the constitutional rights and freedoms of man and citizen directly on the basis of the Constitution of Ukraine.

Instead, the realization of many social and economic rights depends not only on legal regulations, but also on the provision of appropriate material conditions. The latter is not the competence of the judiciary, but primarily of the executive branch of government and local self-government. For example, a court decision is not enough to ensure the development of science or the preservation of cultural heritage, including the preservation of historical monuments and other objects of cultural value (as mentioned in Clause 54 of the Constitution), because such tasks require specific material support.

What is the real danger caused by the lack of a clear division of civil rights and freedoms, and socio-economic human rights, in the Constitution? There are two danger factors here: in the field of legal consciousness, and in the field of law enforcement practice. Both of these factors are interrelated. The content of the first dangerous factor is an attempt to replace political problems with socio-economic and, accordingly, reduce public attention to the protection of inalienable rights and freedoms. The results of many sociological studies show that the attention of the population to socio-economic aspects - as living standards, employment, wages level, economic status in general - significantly outweighs people's attention to political ones, in particular, to freedom of speech, the problems of transparency of government. This state of affairs has its negative consequences. In fact, it shuts down such an important tool of democracy as public control over power, which is the main possible mechanism for overcoming most problems in the relationship between government and society.

Now it is necessary to pay attention to the analysis of separate legal mechanisms existing in the Ukrainian legislation concerning possibilities of realization of various types of information rights. It is about directly obtaining information on the initiative and in the interests of a particular person through his independent actions, and the obligation of the state to bring information to society, make it accessible and widely known (first of all, we mean such types of information as legal, environmental, political - during the election process, statistical, and others). The Constitution of Ukraine defines 'the right to make applications' as a mechanism by which a person can fulfill his / her rights and legitimate interests in relations with public authorities, in particular with regard to access to and receipt of information from these administrative institutions. Under this provision, everyone has the right to send individual or collective written appeals, or to make personal appeals towards public authorities, local governments, and to officials,

who are obliged to examine the appeal and give a reasoned response within the statutory period (Constitution, 1996 : clause 40).

The issues of practical realization by citizens of their right to appeal granted to them by the Constitution of Ukraine are also covered in the Law of Ukraine "On Citizens' Appeals". According to this Law, citizens of Ukraine have the right to apply - to public authorities, local governments, associations of citizens, enterprises, institutions, organizations (regardless of ownership), media, officials in accordance with their functional responsibilities - with comments, complaints and proposals concerning their statutory activities, with a statement or request for the realization of their socio-economic, political and personal rights and legitimate interests, and a complaint about their violation. Citizens' appeals should be understood as proposals (comments), statements (petitions) and complaints set forth in writing or orally. Public authorities, local governments, enterprises, institutions, organizations regardless of ownership, associations of citizens, and officials consider citizens' appeals without charging a fee (On Citizens' Appeals, 1996: clause 21).

The answer based on the results of consideration of applications (petitions) must be given by the administrative body that received these applications and which is responsible for resolving the issues raised in the applications (petitions), signed by the head or the person performing his duties. The decision to refuse from the satisfaction the requirements set forth in the application (petition) shall be brought to the notice of the citizen in writing with reference to the Law and stating the reasons for refusal, as well as with an explanation of the procedure for appealing the decision (On Citizens' Appeals, 1996: cl.15 pt.3-4). The law provides for the possibility of citizens to apply to certain government entities by submitting electronic petitions. Thus, citizens can make an application to the President of Ukraine, the Verkhovna Rada of Ukraine, the Cabinet of Ministers of Ukraine, and local administrations with electronic petitions through the official website of the body to which it is addressed, or the website of a public association that collects signatures in support of electronic petitions.

Conclusions

Summarizing this study, we note that it's not enough to make a list of rights and freedoms regarding information, its circulation, use, consumption, managing, protection, and so on. We obviously need a set of appropriate mechanisms to make all these rights *available*. Despite the fact that judicial protection is defined in the Constitution of Ukraine as a self-sufficient mechanism for ensuring human rights and freedoms, it is only one of the elements in the system for ensuring these rights. Thus, considering the implementation of constitutional guarantees, one cannot ignore the primary role of executive bodies and

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local self-government. The day-to-day activities of these bodies must create appropriate conditions for citizens to fulfill their rights and legitimate interests. After all, the realization of human and civil rights and freedoms takes place through the channels of executive power in cooperation with civil institutions. As for judicial protection, it is applied in cases where a violation of the law has already occurred. But the main task of the executive branch is to create conditions under which such violations will not occur, or will be minimized.

The important role of administrative-legal relations in guaranteeing the human right to information is determined by the Law of Ukraine "On Information", in which 'the guarantee' is considered as the creation of necessary conditions. The law stipulates that the right to information is ensured by:

- creation of a mechanism for satisfying the right to information;

- creating opportunities for free access to statistical data, archival, library and museum funds, other information banks, databases, information resources;

- the duty of the subjects of state power to inform the public and the media about their activities and decisions;

- the duty of the subjects of state power to determine special units or responsible persons to ensure access of inquirers to public information;

- implementation of state and public control over compliance with information legislation;

- establishing liability for violation of information legislation.

An equally important constitutional mechanism is the control by institutions of the civil society. Moreover, a specific interdependence is realized on the example of the right to freedom of speech. On the one hand, the observance of this right is impossible without effective public control, on the other - in the absence of this right, public control itself will be ineffective. The development dynamics of the human rights institutions shows that at all times, unfortunately, the greatest oppression, violations and restrictions of information rights and human freedoms have been experienced due to the state (its bodies, departments, leaders and officials at various levels). This is explained by the tendency of state power to "self-concentration and self-growth." In a developed democratic society, such dangerous tendencies must be offset by a system of separation of powers, checks and balances, and limited with the control by civil society institutions and the international community.

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AN EMPIRICAL STUDY OF THE SPEECH DEVELOPMENT OF CHILDREN IN CONDITIONS OF BILINGUALISM

Abstract: In current days, the focus of researchers is on modeling the holistic process of using language and developing an integrative type of theory that allows us to understand "how the interaction of linguistic and encyclopedic knowledge in the speech activity of a bilingual person is carried out, how it is organized in his memory" and "through which language they are mastered, as well as through which language they should be transmitted". From this point of view, it is most acceptable to understand bilinguism as a predicate, which allows to form and carry out speech consistently belonging to two language systems of a person. The aim of the study was to study the influence of bilingualism on the level of speech development in bilingual children aged 5-8 years. The research work covers the meaning of the concepts of bilingualism, language competence, analysis of research on the problem of speech development in psycholinguistics and mixed sciences; theoretical analysis of the formation of children's speech; experimental study of the features of the formation of children's speech in bilingualism; monolinguals and bilinguals, depending on the age and degree of psychological development, set themselves the task of determining the features of speech formation in children. The article presents the conclusions made as a result of an experimental study. The study used the "psycholinguistic method of studying the formation of language competence in children" by L.V. Yasman. The complex of psycholinguistic techniques is intended for children of 7-8 years old, consisting of tests aimed at understanding speech and actively mastering the grammatical structure of speech and analyzing the process of speech production in general.

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Introduction

UDC 81'33

The preschool stage of "speech ontogenesis" is characterized by the rapid speech development of the child. Often there is a qualitative change in the dictionary reserve. The child begins to actively use all the sentence fragments, during this period the skills of Word formation are gradually formed in the structure of the language ability that develops. During this period, the active dictionary of the child reaches 3-4 thousand words, depending on the meaning of the word, their distinctive application is formed, they acquire the skills of changing the word and forming the word.

In the preschool period, a sufficiently active application of phonetic aspects of speech is observed, children will have the ability to carry out the word with different syllable composition and sound filling. Even if some mistakes are observed, they are usually difficult to pronounce, poorly applied or unfamiliar to children. Bunda will correct the pronunciation of the child once or twice, show a sample of correct pronunciation and conduct a small "conversational practice" on the correct pronunciation of the word, which will lead the child to quickly enter this new word into his independent speech. The development of the ability to hear and perceive speech helps to control one's own pronunciation and to provoke mistakes in the speech of the surrounding people. During this period, a "language feeling" is formed in

children (intuitive perception of the language norm of the use of the sign), which ensures the correct application of all grammatical categories and word forms in their independent expressions. If during this period the child is observed stable grammar, reduction and replacement of syllables and syllables, incorrect pronunciation of syllables, their replacement and dropping, these are important and obvious signs of the development of speech function. Such children will need systematic logopedic training until they get to school. By the end of the preschool period, the child will have correctly formed speech with kengaygan sentences, phonetic, lexical and grammatik. Deviations from the orhepic norms of oral speech will not have a stable feature, and after proper pedagogical "correction" they will quickly be eliminated. Adequate development of phonematic hearing ability allows children to master the skills of sound analysis and synthesis, which is considered an indispensable condition for the release of literacy during schooling. From the point of view of psycholinguistics, the analysis of the formation of various aspects of speech activity in children is directly related to the problem of the development of coherent speech in preschool childhood. In preschool, the child's speech as a means of communication with adults and other children is directly related to the specific state of visual communication. It is carried out in a dialogical form and acquires a clear situational character (due to the situation of speech communication). With the transition to preschool age, a new activity, the emergence of new relationships with adults, there is a differentiation of the functions and forms of speech. In the child appears a speech of information in the form of a story-monologue. With the development of independent practical activity, the child needs to formulate his own plan, reflect on the methods of performing practical actions. A colloquial context is a need for an understandable speech from a connected context speech. The transition to this form of speech is primarily determined by mastering the grammatic forms of the kengaygan expressions. At the same time, it is observed that in terms of the content of the form of dialogue speech, the child becomes more complicated both in terms of increased language capacity, activity and the degree of participation in the process of live-talk communication. The expression of children 5-6 years old will have a theoretical and informative disposition, in which there is a certain logic of thought. Often in their stories the elements of fantasy are threeraydi, there is a desire to think up episodes that have not yet come across in their life experience. According to scientists, the transition from external "egocentric" speech to internal speech occurs at the age of 4-5 years in the norm. Speech development will continue to develop consistently throughout the school period. Children begin to consciously master the grammatic rules of the formation of free expressions, fully master the

analysis and synthesis of sound. During this period, written speech is formed.

The development of child speech is a complex, multifaceted and long process. Children do not suddenly master the lexical-grammatical structure, word changes, word pronunciation, sound pronunciation and syllable composition. Some groups of language signs are mastered earlier, some later. Therefore, at different stages of the development of children's speech, some elements of the language are assimilated, while others are partially assimilated. In this, the mastering of the phonetic structure of speech will be closely related to the formation of the lexical-grammatical structure of the native language. Most scientists believe that language acquisition in a normal developing child is spontaneous, natural and without special efforts. The features of the formation of language and speech in children are associated with the process of achieving physiologic perfection of the central nervous system and its specific plasticity. The normal formation of psychophysiological systems that provide for the assimilation of speech, in turn, requires their timely stimulation in relation to speech signals. The lack of such stimulation (for example, in connection with a hearing impairment) delays the processes of speech mastering. The age period of speech, which is mastered "without special efforts", is considered a period of crisis in psychology. The duration of the crisis period is determined in different ways by different researchers: often two options are distinguished – from birth to 9-11 years of age and from two years of age to adolescence.

It is worth noting that in the period from 1 year to 12 years the dynamics of the main indicators of the formation of language and speech goes well – the "non-standard" features of individual articulation in this period are eliminated, learn how to correctly apply antonyms, begin to understand many meaningful words and phrases that have a clear and socio-psychological meaning. In this age period, various deviations in the development of speech, in particular, there are defects associated with flatulence.

Many scientists believe that children who are known as" Maugli-children "(children who have developed outside the human sauce), if they are not older than 6-7 years, can return to the" painless " society. This age period is considered a crisis for opportunities to master the native language in psycholinguistics. At the same time, it is important that the child is of age deprived of human communication and the time when this socio-linguistic deprivation occurs (deprivation of the opportunity to communicate with other people) and the presence of any injuries (physical, psychological, social) or developmental disorders.

A.A.According to Leontev, the term "language acquisition" can be interpreted differently from the psycholinguistic point of view: 1) Mastering of the native language, 2) secondary understanding of the

native language in relation to education in school, 3) mastering of any foreign tilni (1, 56).

The main part.

Mother tongue-this is not a "native" language(it can also be: the cases when children of one nationality were brought up in a family of another nationality and began to speak in the same family language from the very beginning were described by many). But this is not even the language of the parents, aynisa, if the family is mixed. Mother tongue is the language in which the child first says his words. At 5-6 years old, the child acquires a complex structure of the mother tongue.

In cases of difficulty in speech production, first of all, the sound component of the meaning plays an important role, which again confirms the rule put forward in the series of phonosemantic studies on the phonetic significance of the sound side of the word/text. The organization of sound in speech formation is confirmed by the fact that the (sometimes the main) instrument count is divided into groups of "associations by sounds" in the analysis of the reactions received in the study.

First, the mechanism of language competence provides for the printsipial possibility of adequate understanding in the conditions of cultural communication, because according to its structure, the program of contextualization will not depend on the syntax of this national language, and the units of content will not depend on the units of the national language.

Second, when composing content in the mother tongue, a compensatory mechanism is launched, which allows bilingval children to generate adequate content, despite the lacunarity of sentences formed from a set of metaphoric verbs.

Third, the possible development of the initial meaning from the actualization of different cognitive signs of one meaning to another occurs when the semantic, psychological, associative and other characteristics of the researcher and translator are incompatible. A comparative analysis of the signs that make up the cognitive composition of the initial and translated sentences determines the established dynamics of the word meanings (determination of the "peripheral" components of the meaning). Bun the cognitive structures modeling the bond reflect the relationship of the main cognitive characters.

The adoption of the whole complex leads to the actualization of several cognitive signs that arise on the basis of the synthesis of two or more metaphorical components. It is worth noting that the division of groups into such groups acquires a conditional character. The cognitive structure ofeksex is considered to be a functional dynamic structure, and its constituent cognitive symptoms are of varying relevance to the perceiving individual. In the process of perception, the factor of belonging/non-belonging

of the subject to the current situation is important. As a result of this, cognitive symptoms can be re-grouped according to the emotional-evaluative components of the individual. The same meaning can enter into several groups at the same time, because the subject is able to simultaneously feel as something inherent in the inner world of the individual and external, external.

Therefore, the components of the cognitive structure are not tightly bound to a particular place, there is no clearly expressed nuclear – peripheral opposition. Each conptive sign can be relevant at any time for the owner of the language, that is, yader, or vice versa – periphery. This printsipial feedback is reflected in the cognitive structure, all its components are interrelated and are not formed in the hierarchical order. In the analysis of the structure of associative meanings, the division into groups "etc." is based on the same prinsip.

The results of the experiment make it possible to predict the probable modeling of meaning with the support of the content of a person's own conjugated system assalsal mexanizm. The mechanism of language ability allows an adequate understanding of the culturelararo communication conditions. The mechanism of compensation in the conditions of communicative difficulty makes it possible to give adequate content to the formed bilingvs, regardless of the lacunarity of the texts appearing on the account of the presence of metaphoric complexes.

The perception of speech formation and perception sounds is associated with the problem of "language perception". The evaluation of the correctness of language phenomena as a function of language perception is carried out as a result of knowledge of the relationships and relationships of this phenomenon, its features in a verbal situation in verbal communication. In the formation of the main methods of communication of the child with the surrounding world, a violation of these relations is manifested.

In the course of the experimental study of bilingv's language abilities based on the sources of perception and formation of speech, there is a direct correlation between language ability and language competence of individuals. This confirms the fact that the mechanism of language ability to express mental content in bilingvs has developed sufficiently. The process of perception/understanding (management of the content of expression), which passes faster and with less difficulty, is considered a priority.

The reliability and accuracy of the conclusions obtained as a result of the study is based on the interoperability of all methodological levels of the study: appropriate psychometric requirements, the choice of methods; Organization of experimental work in compliance with the theory and methodology of psycholinguistics; reliable strategies for the formation of reproducentative selection of recepients;

the application of mathematical processing techniques of experimental data

The study was carried out in three stages.

At the first stage, a theoretical analysis of literature, the choice of a set of methods that correspond to the subject and object of our research was carried out.

At the second stage, an experimental study was conducted. The study included 400 recipients, who were divided into 4 groups according to age criteria (6-7 years old children), monolingv and bilingv criteria (200 children and their parents in the group) according to the purpose set Table 1.

Table 1. Structure of respondents choice for empirical research

Young	Bilinguals	Monolinguals
6 years	50 people	50 people
7 years	50 people	50 people

At the third stage, statistical processing of data and interpretation of the results obtained were carried out.

In the study, "psycholinguistic method of investigating the formation of language competence in children" was used (2, 79). The set of psycholinguistic methods is intended for children 6-7 years old, consisting of tests aimed at understanding speech and actively mastering the grammatic structure of speech and analyzing the process of speech production in general. Speech activity is formed and practically intertwined with other mental processes that occur in sensory-intellektual and affektiv-will circles. The idea of the mechanisms of speech formation and comprehension is associated with the question of "language competence". Language competence and tilni application do not occur simultaneously, and two independent phenomena are not counted. On the contrary, language competence is not considered as the result of its application, and tilni understanding arises in the child in the process of active reflection of reality and active communication. At the age of seven or eight, children switch to new-educational activities and this requires children the ability to formulate expressions at a level that is understood taking into account the speech laws of the language. This complex analytical-synthetic activity may also not be relevant to all children. Empirical research was carried

out with respect toeksexity printsipi, age and individual approach, individual characteristics, eg ownership characteristics.

1-the test is aimed at investigating the understanding of the syntactic structure of the sentence.

1-test.

On the square stands a military gun near the building – on the square stands a military gun near the building.

In the park stands a child holding ice cream next to a ferris wheel – in the park next to a ferris wheel the child holds ice cream.

Instruction.

What is the difference in these sentences?

From the state of psycholinguistics, decoding (understanding of sentences) is the transition from the sentence itself to its super – syntactic structure, and then to its deep-syntactic structure, which allows you to determine the meaning of the sentence.

The study showed that even at six and seven years old, especially bilingval children, it was difficult to understand very simple words. Children were more difficult to understand in words with the use of species, declination, supporting devices.

1-the results of the performance of the test are included in Table 2.

Table 2. 1-test performance results

Points	Monolinguals		Bilinguals	
	6 years	7 years	6 years	7 years
	1-group	2-group	3-group	4-group
0	0	0	0	0
1	0	0	14	3
2	13	2	36	16
3	37	48	0	31

Most monolingual and bilingual children, except for 6-year-old children, correctly performed the task.

7-year-old monolingv children correctly performed the task 96%, six-year-olds 74% (table 10).

Incorrect performance of the test in Bilingval children was observed in more than 6 years 72% of children. In carrying out this task, the children met many difficulties. They could not find the difference between the Shaps at all. For example, in the park stands a child holding ice cream next to a ferris wheel – in the park a child holding ice cream next to a ferris wheel – a comparison of what he said was very difficult for six-year-old bilingval children. Here in each sentence it was necessary to choose a possible connection between the elements of the army" ice cream next to the ferris wheel "and" child next to the

ferris wheel". The following response was more observed: "the same sentences. Nothing has changed."

Seven-year-old bilngval observed a different picture in children. As the age grew, bilngval increased the percentage of correct execution of the task in children, with the increase in the second tilni study time, the dictionary Reserve also increased – 62% (table 10). When the help was provided, the children found their mistakes and tried to correct them.

Our conclusions are confirmed by a statistical account of the differences in the Wilcoxon Matched Pairs Test grouplararo (Table 3)

Table 3. Wilcoxon Matched Pairs according to the test criteria 5-the probability of zero hypothesis about the absence of differences between the groups (1-8) on the results of the test performance (P,%)

Groups	**1**	**2**	**3**	**4**
1	0,061885	0,016369	**0,000000**	**0,000000**
2	1,000000	0,624835	**0,000000**	**0,000000**
3		0,528613	0,021825	**0,000500**
4				**0,007133**

2-the test is aimed at understanding the syntactic structure of the sentence.

2-test

Sanjar hit the cycle. Who hurts someone?

The Kamron is higher than the Sanjar. Who is low?

Salima is larger than Dilnoza, but smaller than Persimmon. Who is the biggest?

Sanjar is higher than the Kamron, but lower than the nadir. Who is the tallest?

Iqiqnoma: listen and answer

The evaluation criteria are the same as the above tetstlarniki.

2-the results of the performance of the test are included in Table 4.

Table 4. 2-test performance results

Points	Monolinguals		Bilinguals	
	6 years	7 years	6 years	7 years
	1-group	2-group	1-group	2-group
0	0	0	0	0
1	0	0	17	7
2	16	7	33	17
3	34	43	0	26

The study showed that children had many difficulties in carrying out this task.

Bilingval found it difficult to understand the syntactic structure of the sentence in children. No one was able to properly perform the task. As can be seen from Table 1-2, execution with errors was also not observed. Most of the children did not complete the assignment (82% of six-year-olds and 88% of seven-year-olds). It is worth noting that the following sentence was more complicated: "Salima is larger than Dilnoza, but smaller than Khurshida. Who is the

biggest? and Sanjar is higher than the Kamron, but lower than the nadir. Who is the tallest?".

Monolingv guys had slightly better results. The most difficult for children was to switch from one simplified connection to another and use it to understand the meaning of the whole sentence. For example:" Sanjar is higher than the Kamron " represents the first Salo. Then he must understand the connection" Sanjar is lower than Nadir". That is, the following hierarchy should be established:

Nodir

↑

Sanjar

↓

Kamron
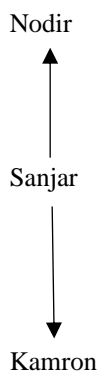
But the children understood the first part of the expression, and accordingly the answers were mistaken. Also in most cases, both halves of the sentence are understood as identical. The children's answers are mostly " quot; higher than the Sanjar Kamron and higher than the nadir. So it will be in the style of" the highest".

Six-year-old bilingval children were unable to complete the assignment. Seven-year-old 86%, six-year-old children 68% monolingval children correctly performed the task (Table 3).

In Bilingval children, improper performance of the task was observed more often (66% of 6-year-old children) (Table 3). In the performance of this task, the children met more difficulties. They could not find the difference between the sentences at all.

The seven-year-old bilngval had different deviations in children. With increasing age, bilingval has increased the percentage of correct performance of the task due to an increase in dictionary Reserve in children, which is based on an increase in the second tilni study time (from 0% to 52%) (Table 3). When the help was provided, the children found their mistakes and tried to correct them.

Our conclusions are confirmed by a statistical account of the differences in the Wilcoxon Matched Pairs Test grouplararo (Table 5)

Table 5. According to the Wilcoxon Matched Pairs Test criteria, the probability of zero hypothesis (R,%) regarding the absence of differences between the groups (1-8) on the results of the 6-test performance

Groups	1	2	3	4
1	0,679073	0,806766	**0,000000**	**0,000000**
2	1,000000	0,463072	**0,000000**	**0,000000**
3		0,495521	0,009345	**0,000518**
4				**0,055214**

Understanding of supporting and conciliatory devices

3-4 tests were conducted to investigate the understanding of syntactic structures.

3-test. Look at the table and answer the following questions:

1.Tell the square number of the drawing in the pictures below:

the star under the flag

the balloon under the flag

the star is on the right side from the sphere

the flag is on the left side from the star

1.Say, what is drawing:

under a flag

on the flag

on the right side of the sphere

to the left of the sphere

4-test. Look at the table and answer the following questions:

1.Tell the square number of the drawing in the pictures below:

the flag is between the sphere and the star

between the balloon flag and the star

2.Say, what is drawing:

between the sphere and the star

between the flag and the orb

The evaluation criteria are the same as the above tests.

3-the results of the performance of the test are included in Table 6.

Table 6. 3-test performance results

Points	Monolinguals		Bilinguals	
	6 years	7 years	6 years	7 years
	1-group	2-group	1-group	2-group

0	0	0	0	0
1	0	0	37	8
2	33	5	13	27
3	17	45	0	15

4-the results of the performance of the test are included in Table 7.

Table 7. 4-test performance results

Points	Monolinguals		Bilinguals	
	6 years	7 years	6 years	7 years
	1-group	2-group	1-group	2-group
0	0	0	0	0
1	0	0	29	0
2	34	3	21	34
3	16	47	0	16

To understand and perform tasks, it is not enough for a child to know only the special meanings of auxiliary words, namely: "Star, flag, ball". The examiners had to translate the upper structure into an internal structure: "the star under the flag" or "the ball under the flag", "the flag between the ball and the star", for example, "find the star on which the flag is drawn".

Bilinguuals found it difficult to understand supporting devices in children. It is worth noting that "say what is drawn: on the right side of the sphere, on the left side of the sphere, between the sphere and the star".

Monolinguals made it difficult for children to switch from one simplified connection to another and apply it to understanding the content of the whole task. In the matter, the Children searched for figures on the basis of the sequence given in the assignment.

Six-year-old bilingual children could not properly complete the task.

Our conclusions are confirmed by a statistical account of the differences in the Wilcoxon Matched Pairs Test grouplararo (table 8-9)

Table 8. According to the Wilcoxon Matched Pairs Test criteria, the probability of zero hypothesis (P,%) regarding the absence of differences between the groups (1-8) on the results of the 9th Test performance

Points	1	2	3	4
1	0,831310	0,820280	**0,000000**	**0,000000**
2	1,307822	0,262193	**0,000000**	**0,000000**
3		1,000000	0,011719	**0,000002**
4				**0,000008**

Table 9. According to the Wilcoxon Matched Pairs Test criteria, the probability of zero hypothesis (P,%) regarding the absence of differences between the groups (1-8) on the results of the 10-Test performance

Points	1	2	3	4
1	0,660282	0,695064	**0,000000**	**0,000000**
2	1,522781	0,495521	**0,000000**	**0,000000**
3		1,000000	0,000000	**0,000001**
4				**0,000001**

In this way, in bilingval children's expression, we recorded a number of difficulties in understanding words due to a violation of the decoding process in the stage of internal speech. In the studied children, the transition from the outer surface structure of the sentence to the inner structure of the sentence is difficult, since understanding is subject to the rules of word construction, characteristic of the stage of inner speech, when the word order expresses the sequence of events. Localization is important when analyzing emotions in the right hemisphere, especially when understanding the behavior of the child, his speech. This means that the majority is typical of disillusioned delicacy and intravertedness in children, and this is related to the potential (and Real) challengechiliklar in the learning process. It is worth noting that in traditional education, chapakai children will have certain advantages in the early stages: they will quickly learn to read and are stable in the achieved results. Due to the peculiarities of brain asymmetry, the success of mastering reading and writing shows that even children with the right hand (that is, with the tendency of the left hemisphere) develop differently for a year. Thus, by the end of the first year, the activity of the left hand, as well as even in children with a high degree of right-handedness (that is, those with a right hand, ears, eyes dominant), the right hemisphere faxes. The advantage of "less right hands" is determined, because they FAO depending on the function of the left and right hemisphere during the speech activity. Differences in the predominance of the hemisphere in boys and girls are expressed in different ways: "asymmetry in boys is expressed significantly more than in girls, and girls receive much more extralinguistic information than boys." The brain of the son children is characterized by great differentiation, dynamic reaction to the essence of assessing their activities, re-Control in cases of negative evaluation. For girls, the extralinguistic properties of the evaluation are important, in which the reliability of the brain is high, there is an active connection between the hemispheres.

This information is quite consistent with the imagination of functional asymmetry in adults. Naturally, even children of the same age, depending on the gender and the degree of superiority of the right or left hemisphere, choose different strategies of speech behavior and are characterized not only by varying degrees, but also by different acuity of cognitive development and language competence. Special functions – memory and attention-forming competence have a serious impact on the language-forming competence. For a child of six to seven years, it is characteristic to develop cultural, that is, voluntary and indirect signs, Special Functions. They can not connect images without a hyphen of his previous experience, for example, can not express

the memorization of words that are not directly related to his semantic picture.

Modern experimental data prove certain differences in the effectiveness of voluntary and involuntary memory retention between boys and girls. If voluntary and involuntary retention is equally effective for girls, the effectiveness of involuntary retention for boys is significantly lower than that of girls, while voluntary retention with effectiveness does not differ from girls.

The development of attention, especially voluntary attention, is a problem for a child of any age. Most of the special methods of training belong to the fact that it is easier to concentrate and remember exactly. The attention of children under the age of eight becomes unstable.

It is possible to eliminate the instability of attention through certain methods, which allow to "manifest the attention process as an intermediary". The development of attention and memory determines the strategy of speech behavior in the production and perception of expressions, texts and directions in communication and polilog with interlocutors, which differ from the status of the child. However, in order to analyze the features of associative strategies, individual linguistic landscape of the universe, it is recommended to consider in detail some of the main features of the linguistic consciousness and speech activity of a six to seven-year-old child, whose mother tongue is now beginning to learn regularly. Thus, the thinking of a six-seven-year-old child is distinguished by syncretism, egocentrism and concretism, voluntary and indirect formation of memory and attention occurs. By this age, "preferred" thinking strategies are formed on the basis of the predominance of the cerebral hemisphere. The "preference" of the strategy is determined by the predominance of the hand, ear and eye, reflecting the leading role of these organs for orientation and activity in the surrounding space. The formed strategy is reflected not only in the results of the child's mental activity, but also in behavior, including verbal behavior. In particular, it refers to the development of emotional feedback, self-assessment, the formation of the direction of the personality.

Differences in sex are quite significant, they are reflected in the formation of localization of speech functions, interaction of hemispheres, the development of memory and affect the characteristics of speech-thinking processes.

Conclusion.

The process of decoding the expression varies in connection with the fact that it contains some information known to the child, consolidated in the previous experience or the content of the message is understandable only on the basis of an analysis of the official and grammatic characteristics of the structure. In the initial case, understanding the expression does not cause difficulties, we can take as an example of

everyday communication, since in everyday communication the meaning of the expression is evident not only from the grammatic structure of the sentence, but also from the situation known to the child, the subject of communication.

At the same time, bilingval observed improvement in children's speech perception in relation to education. Bilingval children are more interested in linguistic phenomena than monolingv

children, because it has more language experience. To the semantics of words, the tickle Awakens early, because it is possible to pronounce one word both in its native language and in Russian. This will contribute to the development of motivation for nominations. They take out the etymology of words themselves and begin to actively use the knowledge of two languages**.**

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IMPROVING THE TECHNOLOGY OF WELDING CHROMIUM – NICKEL STEELS

Abstract: In this article, the quality of the weld depends on the type of material, weldability, thickness of the weld, the degree of preparation of the weld, the welding equipment, welding method, mode, the nature of the weld, the qualifications of the welder and other parameters. There are also several welding methods and economic indicators.

Key words: Welding, liquid, electric arc, electric slag welding, horn, diffusion, ultrasonic, cooling, plasma, galvanic and chemical coating, diffusion chromium titration.

Language: English

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Introduction

Nowadays, the restoration of parts by welding is of great importance in the national economy. However, the efficiency and quality of the restoration of details depends on the chosen method. According to the literature, the following methods of detail restoration are widely used.

Table 1 – Classification of methods used in the restoration of parts by welding

№	Method group	Applicable recovery methods
1	Liquid welding (liquefied metal coating)	Electric arc welding, electric slag welding, under flux layer, shielding gas, water vapor welding, vibration arc, gas, plasma, electron beam, laser beam welding
2	Pressure welding	Electrical contact, friction, blasting, horn, under the board, diffusion, ultrasonic, cooling, induction welding
3	Metal Spray Coating	Plasma, Gas – plasma spray coating
4	Metallization	Gas, electric, high frequency current, plasma metallization

5	Welding	Welding with soft, hard and aluminum welds
6	Electrolytic coating	Chromium plating, plating, nickel plating
7	Use of synthetic materials	False liquid layer, gas-plasma method, pressure injection method, board coating
8	Pressure processing	Expansion, sinking, circling, elongation, partial sinking, electromechanical processing
9	Plumbing-mechanical processing	Mixing, grinding, grinding, milling, grinding, expanding, pinning, threading, pulling and other elements
10	Electrical treatment	Anode-mechanical, electro-chemical, electro-contact, electro-pulsed
11	Thinning processing	Thermal, thermo-mechanical, chemical-thermal, surface plastic deformation, machining with diamond tools

Several scientists and researchers have grouped the available methods into ten groups, depending on the physical nature, technological and other characteristics of the process of recovery of worn parts.

Table 2 – Methods of restoration of details by welding

№	Method group	Methods
1	Welding – mechanical processing methods	Restoration of details to the size of recycling, restoration of details with additional elements, cutting and removal of traces of corrosion and its correct geometric shape, reassembly
2	Methods of plastic deformation	Stretching, straightening, mechanical, hydrothermal or electrohydraulic expansion, surface treatment with balls or rollers, mechanical or thermoplastic compression, sinking, immersion, electromechanical treatment
3	Coating with polymer material	Powder coating, press coating, pressure casting coating, mechanical coating
4	Methods of welding on the handle	Gas flame, electric arc, argon gas arc, electric arc, plasma, termite, electric contact
5	Mechanized methods of arc welding and coating	Automated under flux, shielding gas environment: argon, is gas, water vapor, etc., mixed shielding gas environment, gas flame shielded electric arc, vibration arc, with powder wire or tape, with wide layer, laid electrode, plasma, cop electrode, simultaneous deformation, simultaneous mechanical processing
6	Mechanized methods of arc welding	Induction (high frequency), electric slag, contact welding and coating, friction, gas flame, electron beam, ultrasound, diffusion, laser, termite, blasting, magnetic pulse, horn heating
7	Gas flame coating (metallization)	Electric arc, gas flame, plasma, detonation, high frequency current, electric pulse, ionic plasma
8	Galvanic and chemical coating	Alternating current, alternating current, electrolyte current, bathless bath, chromium plating, electrolyte chromium plating, copper plating, galvanizing, alloy coating, composite coating, electric contact coating (electric friction), galvanic – mechanical, chemical nickel plating
9	Thermal and chemical-thermal treatment	Annealing, discharge, diffusion exploration, diffusion galvanizing, diffusion titanium, diffusion chromium plating, diffusion chromium titration, diffusion chromation, refrigeration
10	Other methods	Liquid metal casting, freezing, heat sealing, welding, brazing, electric sparking and alloying

MATERIALS AND METHODS

Mechanical processing method it is used in the preparation or finishing of worn surfaces, as well as in the restoration of parts to the size of the repair or in the restoration of additional elements. When the details are machined to the size of the repair, the geometric shape of the work surfaces is restored, and when installing additional elements, its size is adjusted to the size of the new detail.

Galvanic coating method based on the property of the separation of metals from a solution of metal salts under the influence of an electric current.

Galvanic coatings are obtained to cover the worn surface of the part. It is possible to recover less worn parts using galvanic methods. The advantage of these methods is that the mechanical properties of the selected metal can be changed by changing the modes of the electrolysis process. The friction resistance of the layer obtained by the process is low and the hardness is 75% of the hardness of high-frequency current – treated steel 45, the fatigue strength is 25 ... 30% less, the complexity of preparation operations and labor – intensive, the need for large production area, There are drawbacks such as harm to the health of service providers.

Coating methods of welding. Welding and coating methods are the most basic methods of repairing machine parts. At present, more than 70% of parts are restored by repair and welding methods in repair shops. Of this, 80% is done using electricity and 20% using gas flame. Welding is used to eliminate mechanical defects of parts, and liquefied coating is used to restore worn work surfaces with a layer of metal. Although many types of liquid coating methods are used in repair shops, a number of welding methods, such as laser, plasma and electrocontact, using a gas flame under the flux layer, are considered promising.

The widespread use of these methods in repair is characterized by the following factors: their efficiency and relative simplicity of the process, strong adhesion of the coating to the base metal, the possibility of obtaining a quality weld layer (high hardness, corrosion resistance, increased elasticity, etc.).

Taking into account the advantages of these methods, we have chosen a promising coating method for flux welding of future parts of our graduate work.

It is known that under normal conditions, the welded joints contain rust, oil, dirt, which negatively affects the quality of welds. Therefore, gas molecules (O_2, H_2, N_2) in the air pass to this surface, even if the welding areas are cleaned before welding these products. Therefore, in order to clean them and obtain high-quality welds, a special compound called flux is used in welding. In other cases, the hardness of the metal is a problem. Therefore, the welds are heated and melted to form a small-volume shaft, which cools during the crystallization, as well as heats the welds of the welded parts until they become highly plastic and compresses them with the required pressure (1 - 4 kgf / mm²). At the same time, the adsorbed gas molecular membranes on the welding surfaces are separated, and the surfaces are so close that under these conditions, the molecular bonds are formed and a fine weld is obtained.

Arc welding under flux is arc welding, in which the arc burns under the flux. Under the influence of the arc, the wire melts and, depending on its capacity, is transferred to the welding zone. The bow is covered with a layer of flux. the welding wire (along with the arc) is moved by a special mechanism (automatic welding) or manually (semi – automatic welding) depending on the direction of welding. Under the influence of summer heat, the base metal and flux melt. Melted wires, flux, and base metal form a welding bath. The flux in the form of a liquid film protects the welding zone from the air. With the help of an arc, the molten weld metal drips into the welding bath, where it mixes with the molten base metal. As the arc moves away, the metal in the bath begins to cool as the heat begins to dissipate and then hardens to form a weld. The molten flux (slag) solidifies to form a layer of slag on the weld surface. The undissolved excess flux part is cooled and reused.
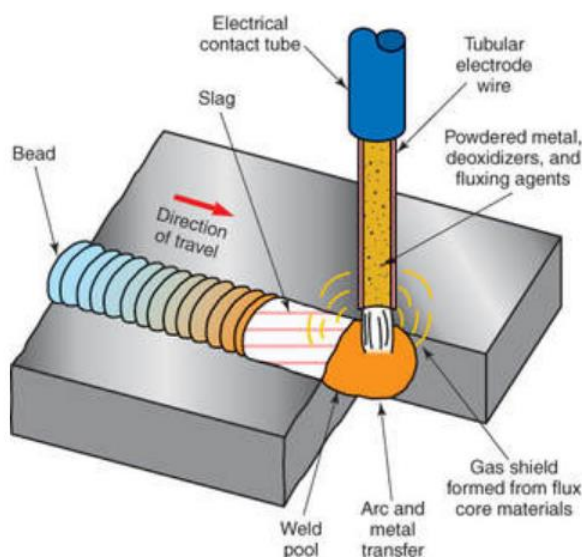

Figure 5. Welding under flux
1 – detail of the coating; 2 – flux layer; 3 – welding wire; 4 – welding arc; 5 – dissolved flux; 6 – slag layer; 7 – flux residue; 8 – welding seam; 9 – welding bath
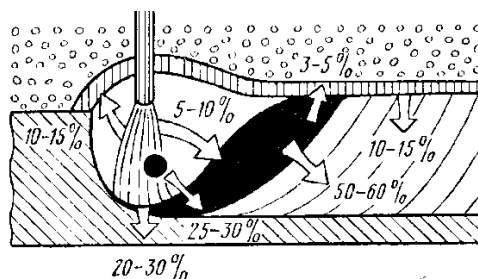
Figure 6. Scheme of heat input to the coating under the flux
Welding materials used in welding under flux are welding wire

The solder cores of the coated electrodes are made of welding wire. When welding under flux and in a shielding gas environment, the weld wire is used as an electrode without a fusible coating. Welded steel wire 0.3; 0.5; 0.8; 1; 1,2; 1.4; 1.6; 2; 2.5; 3.0; 4; 5; 6; 8; Produced in diameters of 10 and 12 mm. The first seven diameter wires are mainly designed for semi – automatic and automatic welding in shielding gases. Wire with a diameter of 2 – 6 mm is used for semi – automatic and automatic welding under flux. The cores of the electrodes are made of wire with a diameter of 1.6 – 12.0 mm. The wire is produced in bundles weighing up to 40 kg with a copy.

It involves the development of the following 77 brands of steel wires of various chemical compositions:

a) low – carbon wires containing up to 0.12% of carbon and intended for welding low and medium carbon, as well as some low-alloy steels, including Sv – 08, SV – 08A, Sv – 08AA Sv – 08GA, Sv – 10GA, Sv – 10G2;

(b) manganese, silicon, chromium, nickel, molybdenum and titanium alloy wires used in the welding of low – alloy steels of appropriate grades; such wires make up a total of 30 types of wires, including wires Sv – 08GS, Sv – 08G2S, Sv – 12GS, etc;

d) multi – alloy wires of special grades Sv – 12X11NMF, Sv – 12X13, Sv – 08X14GNT and other grades for welding and soldering of special steels; a total of 41 brands.

The symbol of the welding wire is marked with the letter Sv (welding) and a letter – numeric symbol indicating its composition. The first two digits represent the percentage of carbon in the wire. Then the names and percentages of the alloying elements are indicated by letters and numbers (numbers), respectively. If the content of the alloying element is less than 1%, only the letter representing the name of the element is used. The symbols of the alloying elements are shown in Table 3.

Table 3 - Definition of alloying elements

Name	Symbol of the element in the Mendeleev periodic table	Marking on metal marking
Nitrogen	N	A*
Niobium	Nb	B
Tungsten	W	V
Manganese	Mn	G
Mis	Cu	D
Selen	Se	E
Cobalt	Co	K
Molybdenum	Mo	M
Nickel	Ni	N
Boron	B	R
Silicon	Si	S
Titan	Ti	T
Vanadium	V	F
Chrome	Cr	X
Aluminum	Al	Yu

* High – alloy steels cannot be marked with the last mark.

The letter A at the end of the steel mark indicates that it is of very high quality and low in sulfur and phosphorus. the diameters of the welding wires are numbered in front of their marks.

Example: 3 – Sv10G2SMA.

It reads as follows: wire diameter – 3 mm, for welding, carbon – 0.10%, manganese – 2 %, silicon and molybdenum – about 1 %, sulfur and phosphorus content is reduced from 0.01%. In most cases, we can find the letters at the end of the brands of welding wires:

"O" means that the surface of the wire is covered with a layer of copper.

"E" means that this wire is used to make a coated electrode.

"Sh" means that the wire is made of molten steel by electro – slag method.

"VD" means that the wire is made of vacuum – arc melted steel.

"VI" means that the wire is made of vacuum – induced molten steel.

The surface of the wire should be clean and smooth, free of burns, rust and grease. copper can be coated on the surface of the wire used in mechanized methods of welding.

Welding fluxes. Welding fluxes are made of various non – metallic elements with a grain size of 0.25 to 4 mm. fluxes are used when working with mechanized welding. Fluxes melt under the action of arcs, form gaseous and slag protective phases, clean the welding bath from contaminants, and slag solidifies on the weld surface by attaching sulfur and phosphorus.

There are a number of requirements for fluxes used in welding:

1. Ensure stable arc ignition during welding.

2. Provide the weld with the required chemical composition and the desired properties.

3. Ensure a well – formed weld seam.

4. Ensure that the weld seam is obtained without defects.

5. Ensure that the slag moves easily over the seam surface.

Stable arc combustion is ensured by the addition of light ionizing components to the flux. the composition of the weld is mainly provided by the flux interaction of the welded metal and electrode wires. Good formation of the weld and easy removal of slag from the weld surface is achieved by controlling the physicochemical properties of the flux (melting temperature of the flux, liquid flow rate, metal-slag additives, the absence of pores, mainly alloying and oxidizing agents included in the flux) components.

Considering the factors listed above, fluxes are very diverse and varied and can be classified by several of their characteristics. Classification of fluxes. Fluxes can be classified according to the following main characteristics:

1. How to make flux:

a) molten fluxes.

b) insoluble (ceramic) fluxes.

d) flux pastes

2. By purpose:

a) for a specific welding method (for arc welding, for electric slag welding).

b) for welding a certain metal (for welding steel, for welding aluminum, titanium, copper, magnesium, bronze, etc.).

3. Chemical composition:

a) Oxidizing fluxes. They add a lot of manganese and silicon oxides, partially oxidize the bath metal during welding, and enrich themselves with pure manganese and silicon in the form of solder. Oxidizing fluxes are mainly used in the welding of carbon and alloy steels.

b) Non – oxidizing fluxes. They contain almost no manganese and silicon oxides, and are mainly composed of stable bonded oxides. These include calcium oxide, magnesium oxide, aluminum oxide, and calcium fluoride.

These fluxes are mainly used for welding medium and high alloy steels.

d) Oxygen – free fluxes. They are composed of fluorinated and chlorinated salts of alkali and alkaline earth metals and other oxygen-free compounds. These fluxes are used for welding non – ferrous metals with high chemical activity. Including aluminum, magnesium, titanium and others.

It is prepared by melting the components of molten fluxes. Molten fluxes are involved as the main welding material in automatic welding of metal. AN – 348 – A, AN – 348 – AM, AN – 348 – V, AN – 348 – VM, AN – 60 and FTS – 9 type fluxes are used for mechanical welding of carbon and low-alloy steels with carbon and low-alloy welding wire. used for welding. AN – 8 fluxes are used for welding low-alloy steels with carbon and low – alloy welding wire and for electric slag welding of carbon and low – alloy steels.

AN – 15M, AN – 18, AN – 200, AN – 20SM and AN – 20P fluxes are used for welding of medium – alloy steels and high – alloy steels, as well as for automatic arc welding. The AN – 22 flux is designed for electric slag welding and automatic arc welding and welding of low and medium alloy steels. AN – 26S, AN – 26SP and AN – 26P fluxes are used for automatic and semi – automatic welding of stainless, corrosion-resistant and heat-resistant steels. AN – 17M, AN – 43 and AN – 47 fluxes are used for arc welding and melting of high – strength carbon, low and medium alloy steels.

Advantages of molten fluxes:

- homogeneity of chemical composition;

- high mechanical strength;

- high humidity.

Disadvantages of molten fluxes. Its only drawback is that it does not contain pure metal powder when making molten fluxes.

Development of molten fluxes. Production of flux involves the following processes: grinding of raw materials (manganese ore, quartz sand, chalk, fluorspar, etc.) to the required size; they are mixed in

specific weight ratios; the gas is melted in a flame or electric furnace; granulated, that is, to have specially sized flux grains. To granulate the flux, the dissolved flux must be drained so that the flux cools in water and breaks into small pieces. The flux is then dried in drums or drying cabinets, sieved and separated into fractions.

In the wet method, the flux melted in the furnace is removed from the furnace and poured into a pool with a special tap water in the form of a thin stream, in some cases this flow of flux is blocked by a stream of water. The flux collected at the bottom of the pool is collected, dried and sifted.

Fluxes can be glassy or flaky, depending on how long the fluxes are melted in the oven and then taken out of the oven. Foam flux of the same composition is 1.5 – 2 times lighter than glass flux. Fluxes are mainly used for welding at high welding currents and speeds, and provide good weld formation. Prepared fluxes are stored in special metal or polyethylene containers

Selection and justification of welding materials

The main coating material in the arc coating under automatic flux is the flux and wire. We choose Np – 30XGSA cable and AN – 348A flywheel, taking into account the mechanical properties, function and hardness of our coating product.

Table 4 - Chemical composition of AN-348-A flux %.

SiO$_2$	MnO	CaO	MgO	Al$_2$O$_3$	CaF$_2$	Fe$_2$O$_3$
41-44	34-38	10	7	6	2-4	2

He size of flux grains is 0.35 – 3 mm. The structure of the flux is glassy. The grains are yellow and brown.

Table 5 - Chemical composition of Np-30XGSA sheath wire.

Wire brand	C	Si	Mn	Cr	Ni	Mo	Ti	S	P	Other elements
								At least		
Np-30XGSA	0,27-0,35	0,80-1,10	0,90-1,20	0,80-1,10	<0,40	-	-	0,030	0,040	-

The cover wire should be brought to the factory in large batches. Each incoming batch of wire must be provided with a certificate that meets the requirements of one brand, one diameter, one casting, for one task and the surface has the same appearance.

In the central laboratory of the plant, the cladding cable is inspected for access:

1. By chemical composition.

2. In terms of tensile strength.

The wire is brought to the cover section in a wire bay. The weight of the bay should not exceed 80 kg.

Selection and justification of welding equipment

We choose the machine "UNK-112" with the rectifier "VDU-601" as welding equipment for coating under the flux.

The semi – automatic is designed to cover the entire wire under the flux.

Technical description of "UNK – 112" submachine gun:

Table 6

№	Sizes	Range
1	Nominal voltage of three-phase alternating current V	380
2	Rated welding current PV = 100%	420
3	Current type.	Permanent
4	Spatial change of welding torch, mm / min	0.6-2000
5	Welding current setting limits, A	60-600

6	Electrode wire diameter, mm	1,6- 4,0
7	Electrode wire transmission speed m / h	16 – 553
8	Qayta tiklanadigan detal diametri,mm	120-1200
9	change the spatial position of the welding torch in the horizontal position, mm in the vertical position, mm	1000 1770
10	Control cabinet dimensions length breadth height	510 380 1100
11	Maximum weight of the machine to be installed, kg	1580

The "UNK-112" machine consists of a supply source, a control cabinet mounted on this source, a holder and cables for controlling welding conductors. The machine itself includes a cassette mounting base and a wire transfer mechanism. The cassette acts as a container to keep the electrode wire in order. The base cassette installation and control serves for the orderly installation of electrical cables. The transmission mechanism serves to pass the electrode wire to the welding zone. It is powered by a 0.18 kW AOL – 12 – 4 electric motor. Wire transmission is done using transmission and clamping rollers. The clamping force is applied by means of a clamp mounted on the top of the transmission.

In order for the electrode wire to be passed evenly and continuously, the channel guide of the wire must be precisely and firmly aligned with the groove of the transmission rollers. Changing the speed of the electrode wire is done using a flywheel located on the front wall of the transmission.

The control cabinet is designed for installation of elements of the automatic control circuit. "VDU – 601" rectifier is designed for single – post mechanized welding at constant current.

Table 7 - Technical characteristics of "VDU – 601" rocker

№	Sizes	Range
1	Voltage of alternating current three – phase supply network with frequency 50	220 or 380
2	Rated welding current	500
3	Salt walking voltage	70-80
4	Rated operating voltage; for solid external characteristics	50

He welding rectifier consists of a power transformer, a block of powerful thyristors, a choke, a welding line, a magnetic amplifier, an automatic circuit breaker, a control block, a fan transformer with an electric motor, a mains transformer, a semi-automatic, a gas heater .

In the solid mode of external characteristics, smooth voltage control is carried out using a patesiometer mounted on the control block.

Connecting the rectifier to the mains and protecting it from short circuits is carried out by means of an automatic circuit breaker mounted on the back wall of the rectifier.

Ventilation of the fan using continuous wind. Disconnection and connection of the welding current is carried out by means of a circuit breaker mounted on the hose holder.

RESULT

The distribution of the volume of recovery by the methods currently used in the repair of worn – out parts in the repair of agricultural machinery is given in Table 8 below.

Table 8 - Distribution of recovery volume according to the methods used in the restoration of worn parts by welding

№	Recovery methods	Recovery capacity,%
1	Electric arc coating, Including: under the flux layer using an oscillating arc in an environment of shielding gases with powdered wire others	74 32 19 14 4 5
2	Contact welding of the metal layer	7
3	Electro – arc metallization, plasma coating, electrophysical methods	6
4	Galvanic coating	3
5	Coating with polymeric materials	5
6	Plastic deformation recovery	2
7	Liquid metal casting coating	1
8	Restoration using repair size and additional details	2

CONSLUSION

This article analyzes several methods of welding.

Mechanical processing method used in the preparation or finishing of worn surfaces, as well as in the restoration of details to the size of the repair or in the restoration with the installation of additional elements.

Galvanic coating method based on the property of the separation of metals from a solution of metal salts under the influence of an electric current. Galvanic coatings were obtained by the method of coating the worn surface of the part.

Coating methods of welding. Welding and coating methods are the most basic methods of repairing machine parts. At present, more than 70% of parts are restored by repair and welding methods in repair shops. Of this, 80% was done using electricity and 20% with the help of a gas flame.

It is recommended to use the above welding methods, depending on the size of the seam and the degree of wear of the parts that have become unusable due to the results obtained.

It is also recommended to use alloy arcs when repairing or welding parts made of alloy steels. Only then it is possible to obtain quality welded details without compromising the strength of the seams.

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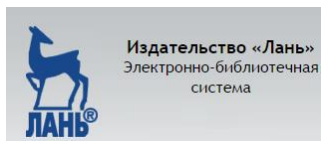
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