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|---|-------------------------|
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| B | PHYSICS AND MATHEMATICS |
| C | CHEMISTRY |
| D | EARTH SCIENCE |
| E | BIOLOGICAL SCIENCES |
| F | MEDICAL SCIENCES |
| G | AGRICULTURE |
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| J | INDUSTRY |
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A SOCIAL SCIENCES

| | |
|----|---|
| AA | PHILOSOPHY AND RELIGION |
| AB | HISTORY |
| AC | ARCHAEOLOGY, ANTHROPOLOGY, ETHNOLOGY |
| AD | POLITICAL SCIENCES |
| AE | MANAGEMENT, ADMINISTRATION AND CLERICAL WORK |
| AF | DOCUMENTATION, LIBRARIANSHIP, WORK WITH INFORMATION |
| AG | LEGAL SCIENCES |
| AH | ECONOMICS |
| AI | LINGUISTICS |
| AJ | LITERATURE, MASS MEDIA, AUDIO-VISUAL ACTIVITIES |
| AK | SPORT AND LEISURE TIME ACTIVITIES |
| AL | ART, ARCHITECTURE, CULTURAL HERITAGE |
| AM | PEDAGOGY AND EDUCATION |
| AN | PSYCHOLOGY |
| AO | SOCIOLOGY, DEMOGRAPHY |
| AP | MUNICIPAL, REGIONAL AND TRANSPORTATION PLANNING |
| AQ | SAFETY AND HEALTH PROTECTION, SAFETY IN OPERATING MACHINERY |

LOCALIZATION OF FOREIGN BUSINESSES IN THE RUSSIAN FEDERATION IN THE CONTEXT OF SANCTION LIMITATIONS AND POLITICAL INSTABILITY

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Abstract: According to the famous French politician and diplomat of the 18th – 19th centuries Charles Maurice de Talleyrand-Périgord, in politics "there are no principles, there are only events". The events of the contemporary circumstances around the world make economic integration necessary, regardless of the political games and preferences, with the purpose of forming a competitive domestic market in the global system of international relations, as well as with the purpose of creating opportunities for the economic growth and for an effectively functioning national economy. The main purpose of this research is to reflect on the actual economic activity of the foreign companies that place their manufacturing facilities in Russia starting from the time when sanction limitations were imposed. For that matter, the investment activity of foreign companies on the Russian market has been analyzed starting in 2014. It is starting from this period specifically that the international mass media have been mentioning a certain drop of investment activity on the side of foreign parties. The authors of the present paper have performed an analysis of the most lucrative economic sectors that have been the focus of foreign participants' financial interests. Companies whose manufacturing activity has been completely localized in Russia have been chosen out for the purposes of this research. Special attention has been given to the companies that have continued their investment activity in the regions of Russia after the deterioration of the geopolitical situation in 2014. The practical part of the present paper is based on the data provided by the Russian Direct Investment Fund, Russian Federal State Statistics Service as well as by foreign companies working in Russia. This paper presents and proves the attractiveness of the Russian market for foreign investors, which has been illustrated by specific cases of deals that have been closed.

Keywords: European business production localization, economic sanctions, foreign company investment activity, Russian economy, investment attractiveness, special economic zones (SEZ).

1 Introduction

The pace of global economic development has increased substantially since such concepts as the global market and the disappearance of the economic boundaries gained importance. However, the current time is marked with a certain refocusing of the political and economic actors, which in its turn inevitably leads to the deterioration of economic relations indicated by the short-term drop in the international commerce. The world export volume in 2016 was lower than in 2014 by 16.4%, and the world import volume of goods in 2016 dropped by 15.6% compared to 2014, which caused losses for both state and private companies. (1)

However, it is still necessary and important to maintain and develop economic contacts regardless of the political differences and sanction limitations.

The present paper aims to bring out the economic activity of foreign companies in the Russian Federation using the example of localization in the territorial entities of Russia.

A drop-in investment activity indeed marked the economic relations between Russia and its partners as a result of the Crimea events of 2014. However, the ratings of economic

attractiveness of Russia that dropped in 2014 and 2015 are being actively revisited today, according to the data from the Moody's rating agency that raised Russia's position in sovereign credit rating from "negative" to "stable" in the category Bal. (2)

Despite the continuing course of the Western countries in prolonging the sanction limitations concerning Russia, foreign companies keep investing into the Russian economy by placing their manufacturing facilities on the Russian market, which in its turn has become more open not only for Western but also for Asian partners, thanks to the changes in currency rates and the government's work on the programs for increasing the investment attractiveness. That emphasizes the significance of and need for the current study. (3-4)

2 Materials and Methods

Among the main research methods of this paper are systematization and information analysis, grouping and following categorization of the data in order to determine positive and negative examples of the figures, correlating the index numbers with the purpose of determining the connection of events and data that led to the realization of investment projects and decisions as well as economic forecasting based on the statistical data bodies and adjustments to the objective information summaries. The reference time frame is from 2014 through 2016.

The influence of the internal and external political and economic factors that are decisive for drawing the foreign actors to Russia has also been examined.

Academic literature and publications, periodicals and news reports, as well as analytical data from the regions of Russia and financial reports of the foreign companies based in the territorial entities of Russia, have all served as the informational background for this research.

The lack of similar databases in academic research accounts for the unique character of the activities connected to the methods of collection, categorization, and analysis of the information.

A number of methods have been used to study the issue. Among them are the historical, comparative, systematic, statistical, and normative analysis and forecasting. Economical and mathematical methods and the method of expert evaluation have also been used. This methodological system has been successfully tested by Russian scholars in a number of academic publications. (5-7)

3 Results

Examples of successful localization of 151 companies in the territorial entities of the Russian Federation since 2014 have been examined for a more detailed evaluation of the volumes of foreign investments and for forecasting the pace of investments into the Russian economy. Apart from that, examples of 50 companies that have been localized since 2014 and have carried on active investment activity in Russia have been taken into consideration.

The table below shows 10 companies with the largest financial investments into the business activity in Russia that have set plans for consequent production localization steps.

Table 1. Top 10 Companies According to the Volume of Investments into Production Localization in Russia Since 2014 in Million USD

| № | Investor country | Investor company | Investment start year | Territorial entity of Russia | The volume of investments in million USD |
|----|------------------|------------------|-----------------------|------------------------------|--|
| 11 | Canada | Genoil Inc. | 2017 | Chechen Republic | 15,000 |

| | | | | | |
|-----|-------------|--|------|--|-------|
| 22 | Germany | Bervel GMBH | 2015 | Ryazan Region | 4,000 |
| 33 | Vietnam | TH True milk | 2015 | Moscow Region | 2,700 |
| 44 | Netherlands | Damen Shipyards Group | 2014 | St. Petersburg, Kirov Region, Nizhny Novgorod Region | 2,276 |
| 55 | Sweden | Elof Hansson Group | 2016 | Tyumen Region | 1,161 |
| 66 | China | China Chengtong Holdings Group LTD | 2017 | Khabarovsk Territory | 1,000 |
| 77 | China | Avic International Holding Corporation | 2015 | Tomsk Region, Novosibirsk Region | 6,93 |
| 88 | China | Zhuoda Group | 2015 | Republic of Sakha (Yakutia) | 6,09 |
| 99 | Turkey | Hayat Holding | 2014 | Republic of Tatarstan | 6,00 |
| 110 | China | Anhui Conch Cement Company | 2015 | Ulyanovsk Region | 5,00 |

Source: Compiled by the authors based on open Internet sources.

Table 1 shows 10 companies with the greatest volume of investments into production localization in the territorial entities of Russia. The total investment volume of the top 10 companies amounts to 28,539 million USD. Chinese partners account for 4 out of 10 companies from this table. That indicates an increased interest of Chinese partners in the Russian market amid the capital outflow of the Western countries. In the light of the exchange value of the ruble that is more attractive for foreign

companies, and the legislative activities of the Russian authorities concerning the special economic zones, a Vietnamese company made the decision to place its manufacturing in Russia. In 2015 "TH True milk" invested 2.7 billion USD into the localization of agricultural plants for the dairy industry in the Moscow region. (8) The conclusion is rather simple: the percentage of Asian companies that are active in Russia is rising and poses substantial competition for the Western countries. Figure 1 shows the allocation of the top 10 companies from Table 1 according to the countries of origin.

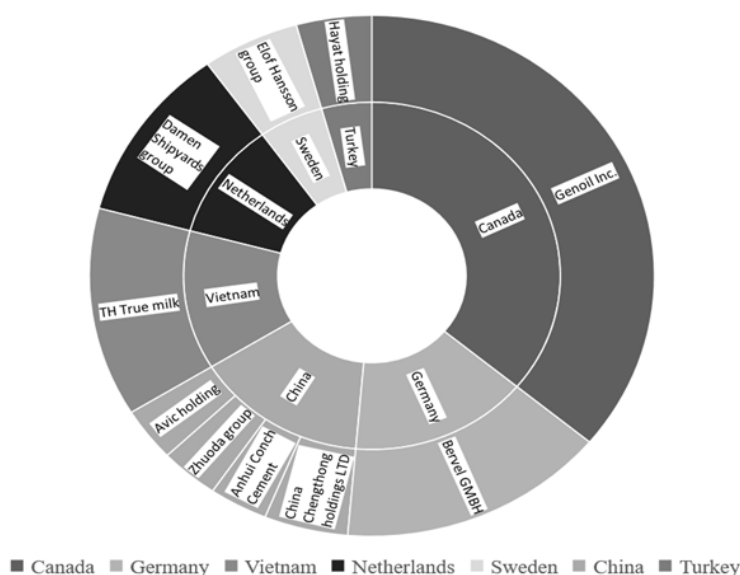


Figure 1. Top 10 Companies According to the Volume of Their Investments into the Production Localization in Russia Starting in 2014 with Consideration of the Country of Origin

Source: Compiled by the authors based on the data from Table 1

Extractive industries gained the most investments. Companies that are depicted in Figure 1 actively develop such branches as the extraction of mineral resources like oil, gas, and coal. "Genoil Inc" takes first place according to this parameter. In 2016 it signed an agreement for 50 billion USD with the "Grozneft" company for the oil field development in the North Caucasian Federal District. Chinese companies such as "China Chengtong Holdings LTD" and "Avic International Holding" prefer to invest into the wood chemical industry whereas "Zhuoda group" and "Anhui Conch Cement Company" invest into construction. (8) Western partners mainly invest in the consumer goods industry, shipbuilding, and wood chemical sectors. The aggregate investments that came from 151 companies that localized in Russia since 2014 amount to 49,725 million USD, which constitutes 8.9% of all investments into the Russian economy in the last 3 years. The above-mentioned

companies are planning to build up their investment activity in Russia in the mid- and long-term perspective. That will lead to an increase in the percentage. Many companies are trying to take up their slot on the Russian market and to use their manufacturing capacities for the connection of the "West-East" supply chains, confirming the long-term importance of this trend.

The leaders of international companies view the turbulence of the global economy as a time of new opportunities. Jack Ma, chairman of the board of directors of Alibaba Group, announced in 2015, at the lowest point of decline of the economic relations with Russia: "I think now is the right time for investments into Russia. At the end of last year, we had a certain recession in business because of the drop in the ruble rate in Russia. But that's normal. Every business has its ups and downs." (9) Chinese partners also picked up the idea of developing mutual

collaboration with Russia. As a result, 24 Chinese companies have localized in Russia since 2014, which brought 5,645 million USD of direct investments into the Russian economy and consequently supplemented the regional budget.

For the Russian economy, it is just as important to maintain the attractiveness of the economy and to provide a market outlet for the running projects of international companies, offering opportunities to build these out in the future. After the mutual sanction limitations between Russia and its Western partners

were imposed, some companies have stopped their activities in the territorial entities of Russia for an indefinite period which damaged the Russian economy as it lost some investment funds and jobs. (10) And yet, not all of the foreign companies “wrapped up” their activities. Some companies embraced this moment to strengthen their presence and ramp up production, and in certain cases even to start new production units in other regions of Russia. Below you can see the examples of companies that invested in modernization and into building up their activities in Russia.

Table 2. Top 10 Companies According to the Volume of their Investments into Increasing their Production in Russia Starting 2014 in Million USD

| | Country | Company | The volume of investments in million USD |
|----|---------|---|--|
| 1 | Turkey | Hayat Holding | 10,000 |
| 2 | USA | PepsiCo, Inc | 9,000 |
| 3 | China | China National Building Materials Group Corporation | 5,000 |
| 4 | France | Groupe Danone | 2,000 |
| 5 | Germany | Siemens AG | 1,500 |
| 6 | Turkey | Kastamonu Entegre | 1,303 |
| 7 | Finland | Nokian Tyres OY | 1,109.3 |
| 8 | Turkey | Sisecam Group | 1,100 |
| 9 | USA | Mondelez International Inc | 1,000 |
| 10 | France | Schneider Electric SA | 1,000 |

Source: Compiled by the authors based on open Internet sources.

“We have been working in Russia for quite some time. We have always been committed to this market and we are going to keep being its players and satisfy the demand of our consumers” – Victoria Mars, chairperson of the board of directors of Mars Inc. The leaders of other companies share the opinion of Victoria

Mars. According to the statements made by the Western partners, now is the most suitable time not only for developing new projects but also for increasing the production volumes of the already existing products. (8) Figure 2 which is based on the data of Table 2 shows the country of origin of the company and the volume of its investments among other projects.

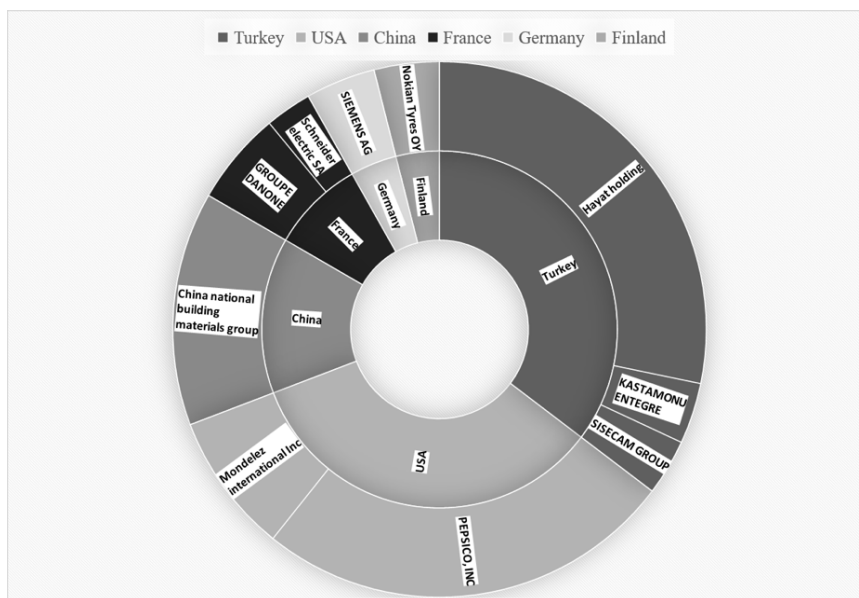


Figure 2. Top 10 Companies According to the Volume of their Investments into Increasing their Production in Russia Starting in 2014 with an Indication of the Country of Origin

Source: Compiled by the authors based on Table 2

Figure 2 shows 10 companies with the greatest volume of investments into increasing their production in Russia. Since 2014 the investments of the Turkish company “Hayat Holding” that placed its main production in the Republic of Tatarstan have

amounted to over 10,000 million USD. The American company “PepsiCo Inc.” has invested 9,000 million USD. The aggregate investments from the top 10 companies amount to 35,403 million USD which comprises 85% of the aggregate investments

of 50 companies that invested in increasing their production in Russia. Despite the political statements and harsh discourse about Russia in the international mass media, the USA remains one of the large investors on the internal Russian market. Since 2014 11 companies from the United States have been localized in Russia, with the total volume of investments amounting to 698.6 million USD. Companies that had already placed their production units in Russia have invested financial assets for over

11,085 million USD. Apart from the United States, the European Union (EU) countries also take one of the top lines for the localization of their production in the regions of Russia, despite the sanction limitations.

Having analyzed the volume of foreign investments, we worked on determining these companies' countries of origin. Figure 3 below shows the main investment flows of foreign companies according to their country of origin.

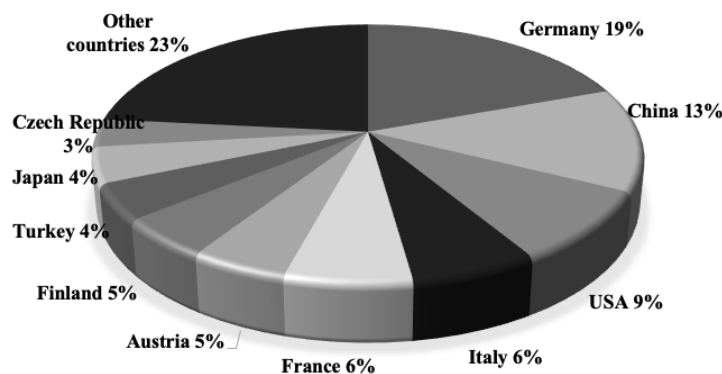


Figure 3. Top 10 Companies According to the Investor Countries That Have Localized Their Production in Russia

Source: compiled by the authors based on data

Despite the sanction limitations that are being imposed by the Western countries, mainly the European Union countries and the United States hold the leading positions for the number of foreign companies that have localized their production in Russia. On top of the list of investor countries is Germany. German companies account for almost 20% of the localized production units. China also keeps working together with Russia actively, being the second largest "player" in the field of investments.

4 Discussion

Russia is actively developing investment sites and supporting the special economic zones (SEZ) on a large scale. The Leningrad and Kaluga SEZs, as well as the SEZ in the Republic of Tatarstan and others, (11) can be viewed as examples of successful implementation of concessionary economic and tax conditions. Dozens of production units have been placed in these regions, among which are also examples of localization of foreign companies. Joint venture companies are being actively built with a lot of projects approved for 2018. In 2016 foreign direct investments (FDI) into the Russian economy increased by 4,256 million USD compared to 2015. (12)

Table 3. Foreign direct investments to Russia in 2014 – 2016 according to the type of economic activity in million USD

| Branch | Investments in million USD | New jobs claimed |
|---|----------------------------|------------------|
| Chemical industry | 10,549 | 3,425 |
| Wood processing industry | 6,731 | 6,801 |
| Agricultural sector | 6,195 | 1,617 |
| Mechanical engineering equipment | 4,447 | 148 |
| Components | 3,644 | No data |
| Retail | 2,725 | 2,564 |
| Construction. Construction materials | 2,487 | 7,152 |
| Automotive industry. Replacement parts | 2,276 | 100 |
| Transportation infrastructure | 2,152 | 6,528 |
| Oil and gas sector | 2,001 | No data |
| Non-metal mineral commodity | 1,532 | 150 |
| Medical equipment and materials | 1,101 | 1,652 |
| Food products and drinks | 798 | 155 |
| Pharmaceutical industry. Biotechnology and medical research | 562 | 300 |
| Energetics | 546 | 2,665 |
| Household goods | 355 | 58 |
| Telecommunications industry | 284 | No data |
| Aircraft industry and military-industrial complex | 268 | 527 |
| Logistics | 257 | No data |
| Software and IT services | 210 | 20 |
| Fishing industry | 129 | 0 |
| Public utility | 111 | 1,200 |

| | | |
|------------------------------------|----|---------|
| Textile industry | 50 | 400 |
| Research and development | 36 | 300 |
| Transport and consumer packaging | 35 | No data |
| Commercial services and delivery | 30 | 0 |
| Tobacco industry | 12 | 100 |
| Investments and investment banking | 10 | 0 |

Source: compiled by the authors according to the open statistics of the Central Bank of Russia

Table 3 shows the main areas of foreign investments according to the type of economic activity. Compared to 2014, in 2016 foreign investors increased their activity in manufacturing. In monetary value, it amounts to 6,997 million USD. (13) The FDI also increased both in the collection, treatment, and allocation of wastewaters and in research and development as well as in transportation and storage. In the other areas, one can see a slight investment outflow which proves that the programs of special economic conditions need to be expanded for certain areas of economic activity.

It should be noted that not all companies that have localized their production or invested in building out their existing production are shown in Table 1. Information about the investment activity of many companies is not publicly available. According to the given information, the forecasted attractiveness of the Russian economy for foreign investors looks optimistic. Over the span of 2 years, 12 branches of the Russian economy received

investments of over 1 billion USD, amidst mutual sanction limitations and turbulence of the global economy.

The smallest investments have been registered in the banking sector and in computer technologies. Computer hardware development only takes place in sporadic corporations which mainly execute state orders in military and research sectors. Therefore, competition with foreign companies in these areas is made difficult and not attractive for partners. In this sector, foreign investment goes to telecommunications equipment and wireless hotspot technology that are being supplied to the Russian market and exported to the CIS countries. While providing investment reports, many companies announced having created new jobs. Many investment branches showed additional openings, the automotive industry being a good example – since 2014, 7,152 new jobs have been registered.

According to a number of prominent experts, the recovery from the loss of investments will take place in the next 4-5 years, primarily thanks to the long-term investments of foreign companies into starting and developing production units in Russia. (10)

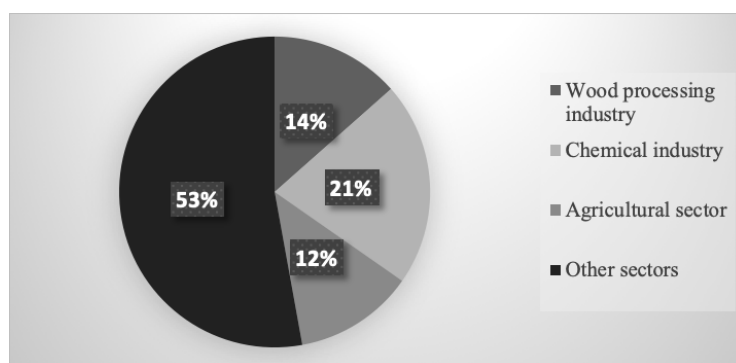


Figure 4. Top 3 Sectors of Russia According to the Foreign Direct Investments in 2014–2016.

Source: compiled by the authors based on Table 1

The Russian Direct Investment Fund (from here on – RDIF) studies the flows of direct investments according to the economic sectors of the country. Having analyzed the information from RDIF, we recognized 3 branches that enjoy the preference of foreign investors; they are wood processing industry, chemical industry, and the agricultural sector.

In total, these 3 sectors account for slightly over 47% of all investments that flowed to Russia from 2014 through 2016. Chinese companies actively invest in developing the

chemical and forest industries, the examples of such companies being China Chengtong Holdings Group Ltd. and China CAMC Engineering Co., LTD. The agricultural sector gets investments primarily from Western companies. The investment regions are located in central Russia.

After the information about the activity of foreign companies on the Russian market was collected and analyzed, the objects of fund investments have been picked out and allocated to the regions of Russia.

Table 4. Number of Investment Objects Registered by Foreign Companies for Localization of New Production Units and Expansion of Production in 2014 – 2016

| Territorial entity of Russia | Number of investment objects |
|------------------------------|------------------------------|
| Kaluga Region | 103 |
| Moscow Region | 93 |
| Republic of Tatarstan | 66 |
| Samara Region | 58 |
| St. Petersburg | 56 |
| Nizhny Novgorod Region | 48 |
| Rostov Region | 48 |

| | |
|--------------------------------------|----|
| Leningrad Region | 43 |
| Lipetsk Region | 42 |
| Sverdlovsk Region | 37 |
| Tyumen Region | 37 |
| Novosibirsk Region | 36 |
| Moscow | 33 |
| Ulyanovsk Region | 27 |
| Voronezh Region | 25 |
| Kaliningrad Region | 25 |
| Yaroslavl Region | 24 |
| Krasnodar Territory | 23 |
| Khabarovsk Territory | 23 |
| Tver Region | 21 |
| Chelyabinsk Region | 21 |
| Primorye Territory | 19 |
| Republic of Bashkortostan | 19 |
| Vladimir Region | 18 |
| Ryazan Region | 18 |
| Tula Region | 17 |
| Trans-Baikal Territory | 16 |
| Republic of Karelia | 15 |
| Novgorod Region | 15 |
| Volgograd Region | 14 |
| Belgorod Region | 13 |
| Omsk Region | 12 |
| Smolensk Region | 12 |
| Saratov Region | 11 |
| Stavropol Territory | 10 |
| Orel Region | 9 |
| Penza Region | 9 |
| Kemerovo Region | 8 |
| Kostroma Region | 8 |
| Komi Republic | 8 |
| Amur Region | 7 |
| Orenburg Region | 7 |
| Perm Territory | 7 |
| Tambov Region | 7 |
| Astrakhan Region | 6 |
| Volgograd Region | 6 |
| Kirov Region | 6 |
| Kursk Region | 6 |
| Udmurtian Republic | 6 |
| Altai Territory | 5 |
| Ivanovo Region | 5 |
| Irkutsk Region | 5 |
| Murmansk Region | 5 |
| Krasnoyarsk Territory | 4 |
| Kurgan Region | 4 |
| Republic of Dagestan | 4 |
| Republic of Mordovia | 4 |
| Tomsk Region | 4 |
| Chechen Republic | 4 |
| Bryansk Region | 3 |
| Pskov Region | 3 |
| Republic of Adygeya | 3 |
| Republic Of Mari El | 3 |
| Khanty-Mansi Autonomous Area – Yugra | 3 |
| Chuvash Republic | 3 |
| Arkhangelsk Region | 2 |
| Kamchatka Territory | 2 |
| Karachayevo-Circassian Republic | 2 |
| Magadan Region | 2 |
| Republic of Ingushetia | 2 |
| Republic of Tuva | 2 |
| Sakhalin Region | 2 |
| Yamal-Nenets Autonomous Area | 2 |
| Jewish Autonomous Region | 1 |
| Kabardino-Balkarian Republic | 1 |
| Nenets Autonomous Area | 1 |
| Republic of Altai | 1 |

| | |
|------------------------------------|---|
| Republic of Buryatia | 1 |
| Republic of Kalmykia | 1 |
| Republic of Sakha (Yakutia) | 1 |
| Republic of North Ossetia – Alania | 1 |
| Republic of Khakassia | 1 |
| Chukotka Autonomous Area | 1 |

Source: compiled by the authors based on data of the Russian Direct Investment Fund.

During the period from 2014 through 2016, 1,286 investment objects have been registered by the foreign companies. These objects include:

- expansion of production;
- power augmentation of the current projects;
- creating new production units on the basis of the existing ones;
- buying out of existing production units;
- starting production units in the new regions of Russia (a company already localized 1 or more production units in Russia);
- localization of new production units. (14)



Figure 2. Foreign Investors by the Territorial Entities of Russia, 2016

Source: The Russian Direct Investment Fund

In Figure 5 you can see the map of Russia with marked territorial entities. All regions of Russia have been classified according to the number of foreign companies registered there. The range varies from 1 to >100. The brighter the color, the more foreign companies are located in this area. The greatest number of companies – 103 – are located in the Region of Kaluga, especially in the SEZ. The Region of Moscow is the second most attractive area for investments with 93 companies. (15) The Republic of Tatarstan is in third place with 66 investment

objects. The special economic zone “Alabuga” is being developed in Tatarstan. It has already attracted multibillion investments from large American and European manufacturers. (11)

The Russian special economic zones are important platforms for the localization of foreign production.

At the moment there are officially 25 special economic platforms that can be divided into 4 types (Table 5).

Table 5. Special Economic Zones of Russia

| Special economic zones | |
|------------------------|---|
| Industry | 9 |
| Technologies | 6 |
| Tourism | 5 |
| Logistics | 1 |

Source: Compiled by the authors based on the data. (16)

The SEZs of Russia is a large project that aims at developing the Russian economy by attracting Russian and foreign investors to the high-tech sectors of the economy, to the import-substituting production, to shipbuilding and tourism. Special economic zones are being created for 49 years. The state grants special legal status to each area. This status gives the investors of this SEZ tax relief and customs preferences. It also gives them access to the engineering, transportation and business infrastructure. The expenses for the investors in SEZ are on average 30% lower than those Russia-wide (Table 6).

For Russian companies, SEZs offer an opportunity to implement international projects, to get the import substitution of equipment going and to enter the international markets.

For foreign manufacturers, special economic zones offer an opportunity to enter the Russian market with larger opportunities to make additional profits in the first years of work, being supplied with the resources necessary for the business development and for the implementation of bold ideas in order to create new industrial and high-tech products. The four types of SEZs in Russia offer the opportunity to:

- develop high-tech production in the Russian economy;
- develop tourism and a tourism service branch;
- develop and localize production of new types of products;
- expand the system of transportation and logistics.

Table 6. Advantages of Working in the SEZs of Russia for Foreign Businesses

| | |
|--|--|
| Special administrative regulations | Lower administrative obstacles |
| Special tax regulations | Lower profit tax rate, exemption from land and transport tax for the first 5 years |
| Special customs regulations | Duty-free zone regime |
| Infrastructure | Office space, gas, running water, electricity, accessibility by transport |
| Warranties | The government of the Russian Federation guarantees the unalterability of the preferences provided |
| Transparent governing system | Regulatory authorities: The Ministry of Economic Development and Trade, authorities of the territorial entities, Russian customs service, etc. |
| Accessibility of qualified human resources | Collaboration with the research and training centers of Russia and other countries |
| Investor expenses 30% lower | |

Source: Compiled by the authors based on the data. (15)

The present research comes to the assumption that over the years of sanction limitations, not only did many foreign manufacturers not stop cooperation with Russia but they also developed their cooperation. To prove this is true we would like to share the statistics of the "Special Economic Zones" for 2015 and 2016. (3,15)

In 2015, 12 companies involving foreign funds were registered with the total volume of investments of about 18 billion rubles. In 2015, 22 residents started production units, among them, were those involving famous large international brands from the USA, Switzerland, Germany, and Japan. (15) By the end of 2015, in all types of SEZs, a total of 61 units were built by residents. During this year, companies involving funds from the following countries became investors in SEZs: Poland, South Korea, Italy, USA, Germany, Switzerland, the Netherlands, Kazakhstan, China, Finland, and Turkey.

During the 1st quarter of 2016, 2 more residents involving foreign funds were registered, with the total volume of investments of around 1.5 billion rubles. Throughout 2016, 70 new companies have been attracted to SEZs, committing a total volume of investments for 84 billion rubles. The list of localized production units includes such cross-national giants as Yokohama (Japan), 3M (USA), ABB (Switzerland – Sweden), GKN plc (Great Britain), PPG Industries Inc. (USA), CIE Automotive (Spain), Air Liquide (France), Rockwool (Denmark), GM (USA), Ford Sollers (USA), Lanxess (Germany), Bekaert (Belgium), and Armstrong (USA).

By 31st of December 2016, a total of 525 resident companies were registered in the SEZs. The volume of their committed investments amounts to 650.5 billion rubles, which means over 1

billion rubles for one SEZ resident. The volume of investments that have already been made by the residents amounts to 218 billion rubles.

Comparatively, 1 ruble of effected public funding within the SEZ equals 1.3 rubles of private investments. The SEZ residents have created over 21 thousand jobs, the volume of tax payments amounts to 28 billion rubles, the amount of customs payments amounts to 25.5 billion rubles. Meanwhile, many companies fall into the phase of concessionary taxation and a number of large companies are still being built or starting production.

Therefore, it is expected that the performance index of foreign residents is going to grow substantially every year. By the end of 2016, out of the mentioned companies registered in the SEZs, 92 companies involve foreign investments from 29 different countries. According to the data by the end of 2016, the companies involving foreign funds within SEZs have invested over 140 billion rubles.

Foreign investors do not abandon their projects and believe in the Russian market. During 2016, 12 new companies involving foreign funds and with the total volume of planned investments of over 19 billion rubles have been registered. 11 residents have built and put their units in place, large and famous brands from the USA and Germany being among them. By the end of 2016, a total of 73 units have been built in the SEZs of all types by the residents. (3,10,16)

After the overview of the companies that have localized in Russia had been performed, the information from the regional statistical authorities was analyzed. Based on this information, a table of Russian territorial entities was put together, covering the range from the territorial entities with the most investments to the territorial entities with the least investments.

Table 7. Direct Investments to the Russian Federation by Territorial Entities Where the Residents Are Registered in Million USD, 2016

| Territorial entity of Russia | Amount of direct investments |
|------------------------------|------------------------------|
| Moscow | 65,313.922 |
| Sakhalin Region | 8,294.830 |
| Moscow Region | 8,204.915 |
| St. Petersburg | 7,631.641 |
| Volgograd Region | 7,342.386 |
| Tyumen Region | 7,307.287 |
| Leningrad Region | 5,775.358 |
| Krasnoyarsk Territory | 5,424.191 |
| Yamal-Nenets Autonomous Area | 2,763.166 |
| Lipetsk Region | 2,022.906 |
| Chelyabinsk Region | 1,777.006 |
| Sverdlovsk Region | 1,589.904 |
| Republic of Sakha (Yakutia) | 1,347.206 |
| Krasnodar Territory | 1,338.499 |
| Kaluga Region | 1,059.810 |
| Kemerovo Region | 872.096 |
| Primorye Territory | 872.028 |
| Republic Tatarstan | 803.746 |
| Tula Region | 718.084 |

| | |
|--------------------------------------|---------|
| Nizhny Novgorod Region | 709.475 |
| Perm Territory | 585.396 |
| Republic of Karelia | 578.987 |
| Khabarovsk Territory | 544.111 |
| Komi Republic | 410.845 |
| Murmansk Region | 405.234 |
| Stavropol Territory | 384.751 |
| Amur Region | 359.585 |
| Novgorod Region | 357.418 |
| Udmurtian Republic | 335.181 |
| Arkhangelsk Region | 291.469 |
| Samara Region | 261.760 |
| Astrakhan Region | 251.366 |
| Vladimir Region | 241.547 |
| Smolensk Region | 240.670 |
| Voronezh Region | 216.620 |
| Trans-Baikal Territory | 206.953 |
| Volgograd Region | 197.942 |
| Tomsk Region | 193.467 |
| Rostov Region | 191.390 |
| Novosibirsk Region | 183.808 |
| Republic of Khakassia | 171.729 |
| Kaliningrad Region | 152.665 |
| Chukotka Autonomous Area | 148.699 |
| Ulyanovsk Region | 148.283 |
| Khanty-Mansi Autonomous Area – Yugra | 142.137 |
| Yaroslavl Region | 141.968 |
| Kostroma Region | 133.920 |
| Republic of Bashkortostan | 131.061 |
| Saratov Region | 123.842 |
| Orenburg Region | 112.130 |
| Republic of Tuva | 109.290 |
| Republic of Adygeya | 106.719 |
| Republic of Buryatia | 75.469 |
| Penza Region | 75.235 |
| Tver Region | 69.956 |
| Ivanovo Region | 64.614 |
| Ryazan Region | 58.611 |
| Altai Territory | 37.351 |
| Irkutsk Region | 35.217 |
| Chuvash Republic | 33.538 |
| Omsk Region | 32.162 |
| Belgorod Region | 31.513 |
| Tambov Region | 27.947 |
| Pskov Region | 24.632 |
| Jewish Autonomous Region | 19.372 |
| Kirov Region | 18.044 |
| Kursk Region | 13.551 |
| Republic Crimea | 11.175 |
| Kurgan Region | 9.187 |
| Bryansk Region | 7.971 |
| Republic Of Mari El | 7.441 |
| Orel Region | 6.806 |
| Magadan Region | 6.750 |
| Republic Of Mordovia | 6.050 |
| Sevastopol | 3.382 |
| Kamchatka Territory | 2.202 |
| Republic of North Ossetia – Alania | 1.638 |
| Republic of Dagestan | 0.921 |
| Kabardino-Balkarian Republic | 0.364 |
| Republic of Altai | 0.230 |
| Chechen Republic | 0.097 |
| Republic of Ingushetia | 0.035 |
| Karachayevo-Circassian Republic | 0.025 |
| Republic of Kalmykia | 0.004 |
| Nenets Autonomous Area | 0.00004 |

Source: Compiled by the authors based on. (3)

The above-mentioned Table 7 shows the territorial entities of Russia according to the number of direct investments. The Nenets Autonomous Area turns out to be the least attractive for investments. This region has only one foreign production unit organized by the German company "BASF AG" specializing in hydrocarbon extraction. The Republic of Kalmykia also has only one foreign unit – the company "Falcon Capital a.s." specializing in wind power plant production. Since these regions took the least significant positions in Table 4 and Table 5, the data needs to be analyzed additionally.

In order to figure out the relation between the amount of investment flows to a territorial entity of Russia and the number of objects for these investments, a correlation of data bodies according to the regions of Russia was performed. The correlation coefficient between the data from Table 4 and Table 5 is 0.2 which means that there is no interrelation between the number of investment units and the number of financial flows.

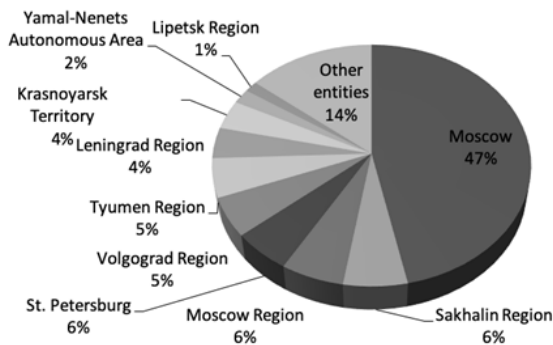


Figure 6. Direct Investments to the Russian Federation According to the Territorial Entities Where Residents Are Registered in 2016 in %

Source: Compiled by the authors based on the statistical data of the Central Bank of Russia

Figure 6 shows the top 10 territorial entities where residents are registered according to the number of direct investments to Russia in 2016. Moscow is leading. In 2016 the region of Moscow received foreign investments of 65,313 million USD. It's 46.7% of the total volume of investments spread out in the regions. This can be explained by the fact that a great number of the headquarters of the regional companies is located in the capital of Russia. Therefore, the bulk amount of finances comes to the investment destinations "in transit" through Moscow. The rest of the shown territorial entities also remain attractive for investments due to the total of numerous factors: accessible infrastructure, regional programs for enterprise development, the SEZ status, a high population in the region and others. 89% of all direct investments go to 10 regions which accounts for the uneven reclamation of the potential of various Russian territories. Financial accumulation in a small part of Russia leads to the deficits in the regional budgets, therefore projects that aim at the least reclaimed parts of the country are especially in demand in the given situation. However, they are not less attractive in terms of investments. Great natural and human potential make it possible to reclaim the farthest regions of Russia which, in its turn, will lead to an active and even

infrastructure development of the country and strengthen its positions in the international market.

5 Conclusion

According to the summary calculations from 2014 through 2016, foreign direct investments into the Russian economy amount to 418,523 million USD. Over 29,653 new jobs have been created.

Therefore, it can be said that the Russian market remains attractive not only for Russia's "old" partners but also for those who took the path of total business localization in Russia recently. The Russian government in every way supports the interest of the foreign companies in the localization of their production both in the new SEZs and in the far-away regions that have great potential. Predicted values for the pace of investments until 2020 have been calculated based on this analysis. The forecast is based on the data about the signed contracts and the development plan that was published in the mass media. (13,16-17)

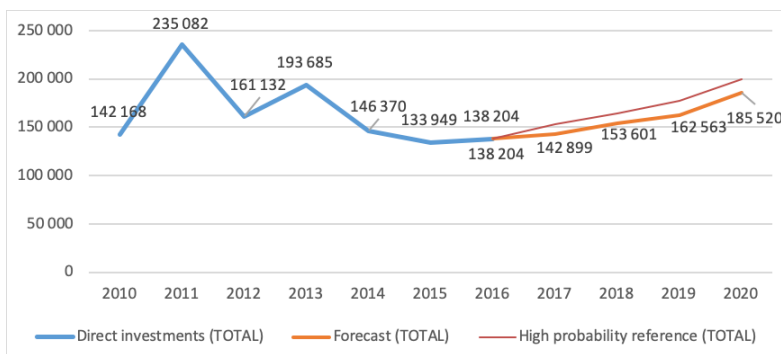


Figure 7. The Forecast of Direct Investments to Russia Until 2020 in Million USD.

Source: Compiled by the authors

Based on the direct investments that came to Russia from 2010 – 2016, a forecast was made with high probability and a

confidence interval of 20%. A positive upward trend has been determined for investments into the Russian economy. However,

the rate of increase will remain low. The level of investments similar to those before 2014 can only be restored after 2020. The period of recession in the national economy is over. The main priority of the economic development of the current period is signing the new partnership agreements between Russia and foreign companies as well as restoration of the lost connections. (18-20)

In conclusion, it should be mentioned that European and Asian businesses see and recognize the potential of Russia. The above-mentioned localization measures are a good example of this fact. The strategic potential of the Russian market is a priority for a foreign investor. Financial investment flows were not stopped as the sanction limitations were imposed. Long-term economic relations turned out to be stronger than political differences. Western countries should see Russia not as a political rival but rather as a potential economic partner in the long-term.

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Literature:

1. The International Monetary Fund. Available from: <http://www.imf.org/external/Russian/>
2. International Rating Agency «Moody's investors services». Available from: https://www.moodys.com/research/Moodys-changes-outlook-on-Russias-Ba1-government-bond-rating-to--PR_361387
3. Federal State Statistics Service. Available from: <http://www.gks.ru/>
4. Federal Law "Foreign Investments in the Russian Federation" of 09.07.1999 N 160-Ф3
5. Chernyaev MV, Kreydenko TF, Grigorieva EM, Moseykin YuN. Mineral extraction tax – a tool for stimulating regional energy industry as a factor in achieving energy efficiency and energy safety. *Anais da Academia Brasileira de Ciencias*. 2017; 89(4):3123-3136
6. Chernyaev MV, Rodionova IA. Analysis of sustainable development factors in fuel and energy industry and conditions for achievement energy efficiency and energy security, *International Journal of Energy Economics and Policy*, "Energy". 2017; 7(5):16-27.
7. Solovieva YV, Chernyaev MV, Korenevskaya AV. Transfer of technology in Asian-Pacific economic cooperation states. *Regional development models International Journal of Energy Economics and Policy*. 2017; 7(5):1473-1484.
8. Statistical database on the work of foreign companies in the territory of the Russian Federation. Available from: <http://ru.investinrussia.com/>
9. Russian news agency. Available from: <http://tass.ru/ekonomika/2055469>
10. Ministry of Economic Development of the Russian Federation. Available from: <http://economy.gov.ru/minec/main>
11. Statistical Database of SEZ of Russia. Available from: <http://www.russeze.ru/>
12. The Central Bank of Russian Federation. Available from: <http://www.cbr.ru/statistics/?Prtid=svs>
13. The Russian Direct Investment Fund. Available from: <https://rdif.ru/WhyRussia/>
14. Federal antimonopoly service of the Russian Federation. Available from: <http://fas.gov.ru/>
15. Moscow Exchange. Available from: <http://www.moex.com/>
16. Federal project JSC «Special Economic Zones» of Russia. Available from: <http://www.russeze.ru/oez/>
17. Trade statistics for international business development. Available from: <http://www.trademap.org/>

18. Resident Register of SEZ of the Russian Federation. Available from: <http://economy.gov.ru/minec/activity/sections/sez/201721114>

19. Social and economic situation of federal districts. Moscow; 2017. Available from: <https://www.gks.ru>

20. Federal Law «Special Economic Zones of the Russian Federation» of 22.07.2005 N 116-Ф3

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RISK ASSESSMENT VIA MULTIVARIATE REGRESSION MODEL IN ACCOUNTING AND REPORTING

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Abstract: The relevance of the research of risk assessment in accounting and reporting is determined by the need for quality improvement of accounting information, delivered to various user groups. In a digital society, the economic capacity of market relations' members depends upon the quality and volume of data and the efficiency of its application. Since the accounting information forms a substantial part of essential data, the demands to it have increased. It is to be not only comprehensive and accurate but as well as qualitative in general. The authors of this article try to enhance the scientific concepts of the ways of risk assessment in accounting and reporting by highlighting and improvement of existing quantitative models as well as by creating the applied tool based on mathematical statistics for indicating the level and place of mistakes. The applied research objective is to highlight the authors' suggestions on the improvement of methods of risk assessment in accounting and reporting via correlation and regression analysis. Fact-based data for the study was supplied by the accounting department of one of the largest Russian construction companies and included information on the number of mistakes as well as the influence of some internal factors on the accounting. The suggestion of this article's authors in relation to the content of these factors is that the number of accounting mistakes is influenced by the professional level of the accounting personnel and their work effectiveness. As an applied scientific result, the authors present the multivariate regression model, verifying the stated suggestion and allowing forecasting the potential number of mistakes in accounting for the coming reporting period. The article materials are of the theoretical value for methodologists working in the sphere of risk management and specializing in their identification, classification, and quantitative assessment, as well as for practitioners responsible for risk assessment and reduction of consequences of accounting mistakes and fraud.

Keywords: risk assessment, accounting mistakes, multivariate regression model, accounting financial reporting.

1 Introduction

The methodical basis of the struggle for quality improvement of accounting information is the enhancement of National and International Accounting and Audit Standards. Thus, International Standard on Auditing (ISA) 315, "Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment", (1) points to the necessity of identification and assessment of risks of essential accounting misstatements entailed by fraud and mistakes alike. International Accounting Standard (IAS) 1 "Presentation of Financial Statements" (2) defines essential gaps or misstatements of accounting materials, which may influence their users' decisions, considering the misstatements characteristics and attending circumstances. International Financial Reporting Standard (IFRS) 7 "Financial Instruments: Disclosures" (3) includes the assessment requirements towards the evaluation of the financial risks on the base of accounting materials. In Russia, there are also legal acts determining the methodological terms of accounting risks analysis.

The National Standard of the Russian Federation "Risk management: methods of risk assessment" (4) comprises the methodological basis of risk management, including its analysis and assessment methods' application. The information of the Ministry of Finance of the Russian Federation № PZ-9/2012 (5) places the requirements for the disclosure of information on the economic activity risks of a company in annual accounting reports. However, the mentioned international and Russian documents do not contain any particular recommendations on the ways of indication, identification, and assessment of risks of mistakes in accounting and financial statements.

National and foreign scientific communities publish the results of their research on the ways of indication and assessment of risks of intentional and unintentional accounting mistakes.

Some of them advocate for the application of qualitative methods, which have a professional judgment in their foundation. Members of the Fisher School of Accounting,

Florida University, C. Olsen, A. Gold (6) have concluded on the relevant integration of auditor's professional judgement and neuroscience achievements in order to detect fraud activity. Relying on the exhaustive survey of the literature of 1980-2010, T.M. Montenegro, F.A. Brás (7) concluded that there is the necessity of audit quality concept enhancement through the use of the comparative approach. C. Seckler, U. Gronewold, M. Reihlen (8) reveal the possibilities of application of the multilevel error-handling model, based on the results of social and psychological research.

The research of S. Perreault, J. Wainberg and B.L. Luippold (9) was focused on the influence of auditor – client relations' character on accounting mistakes and quality of reports. The result of their experiment showed a negative effect of positive mutual relations between client and auditor on the identification of mistakes. In their article Taiwanese scientists Y.-S. Hung and Y.-C. Cheng (10) make a hypothesis on information asymmetry according to which the complication of corporate information entails its transparency decrease and creates conditions for corporate fraud and risk increase. The Russian scientist from financial university D.A. Koroleva (11) has contemplated at a conference on the issue of the possible application of Bayesian approach, allowing estimation of the probability of an event, in strategic management accounting and audit and demonstrated the necessity to adjust the initial data taking new information into account.

Most of the researchers are advocates of quantitative approach and they suggest treating the accounting information via mathematical models in order to indicate and make a quantitative assessment of internal and external factors' effects on the veracity of accounting data.

In their article M. Alilou, I. Moulai, K. Rafatneia, M. Alilou (12) ponder the necessity of error prevention at the stage of financial reports preparation through the use of special methods and computer programs. Z. Drábková (13) from the University of South Bohemia presented a report on the application of risk assessment triangle of small agricultural enterprises' accounting, at the foundation of which there is the correlation between reported profit and net cash flow. The think tanks from America and Hong Kong V.W. Fang, A.H. Huang, W. Wang (14) have made the following conclusions. Errors and prejudice are immanent features of accounting, deteriorating its quality. Parabola with downward directed branches reflects the interrelation between intentional and unintentional accounting misstatements. The complications of generation and presentation of accounting information indirectly influence the number of mistakes. The more mistakes in the company's accounting materials, the less the response of the financial market to change in its yield.

Let us summarize the review of modern scientists' concepts of accounting risk assessment methods. This article's authors stand for the use of quantitative evaluation but accept the possibility of accounting mistakes entailed by external factors which are difficult to estimate quantitatively. Given a vast number of viewpoints of accounting risk objects, the ways of its diagnostics and the decisive factors' structure, we consider it worthwhile to present the results of our own achievements in this direction. The goal, this article's authors have reached, is the augmentation of scientific knowledge in the sphere of risk assessment in accounting and reporting, description of the suggested approach based on multivariate regression model and demonstration of its application toward the indication of accounting error given its unconscious preparation.

2 Materials and Methods

Revealing the issues of research methodology, we turn our attention to the number of key elements. The first is the definition of approach to risk analysis in accounting. The second

is the choice of the number of accounting errors as an estimation object. The third is the justification of multivariate regression as a way of processing accounting data on risk factors. The fourth is the stepwise description of risk research procedure in accounting and reporting via a multivariate regression model. The fifth is the statement of adaptation changes made by the authors in comparison with traditional methodical tools.

2.1 Management of accounting risks research based on a quantitative approach

Accounting and reporting risks assessment methods fall into two categories such as qualitative and quantitative. This article's authors are advocates of quantitative approach since qualitative assessment entails excessive subjectivism.

Quantitative risk assessment in accounting demonstrates the risk magnitude, collected through the use of analytical procedures and mathematical methods. In international standards (ISO/IEC) and the Russian standard "Risk management: methods of risk assessment" (5) there are five groups of quantitative methods of risk assessment: observation, supplementary methods, scenario analysis, functional analysis, statistical methods.

The research of this article's authors is based on statistical methods, which allow for quantitative identification of financial accounting risk and the range of variables directly influencing it, as well as for receiving the risk magnitude from enterprise information systems.

The research is conducted in several steps:

- determination of criterion (indicator), characterizing the error risk in accounting and reporting for key stakeholders;
- revealing of factors, influencing the target criterion, information about which is accumulated in information systems of business structures;
- selection of methodical tools, which allow for determination of the interrelation ways between the resulting indicator and each of essential factors;
- calculation of the range of indicators, reflecting the strength of the relationship between the target factor and influencing factors as well as analysis of final results

2.2 The number of accounting mistakes – universal criterion of accounting risk

The selection of risk criterion of accounting is to be guided by the content of international standards developed by professional communities «Committee of Sponsoring Organizations of the Treadway Commission (COSO)» and «International Organization for Standardization, Federation of European Risk Management Associations».

Outward appearances of accounting risks are many and varied and may be classified according to the number of characteristics:

- according to the prerequisites of record generation: existence; rights and obligations; fullness; accuracy and estimation; classification and clearness
- according to basic rules of accounting, generation and presentation of accounting records: risks determined by the insufficient development of accounting policy; risks connected with execution of primary and consolidated accounting documents; risks of incorrect reflection of economic operations in account books; risks of incorrect evaluation of property and liabilities; risks of discrepancies between actual presence of property and accounting records
- according to characterized object: single operations and events within the period; account balance at period's end; records on the company's activity and its property status within the period

- according to the time period of exposure: past, present, projected
- according to loss rate: insignificant; significant
- according to the level of predictability: predictable; unpredictable

All listed types of risks may be characterized by the term "accounting error", dependent upon misstatements of information and manifested in punitive sanctions.

2.3 Regression model as an instrument of processing records on factors, determining accounting risks

The works of modern researchers consider various application spheres of methods for defining the level of accounting risks.

In some cases, the experience is negative. The American researcher M.J. Nigrini (15) has doubted the correctness of the application of Benford's law to audit sampling through including the reporting indicators, which numerical values differed from values calculated according to this law. His research revealed that samples were too large and accuracy level was insufficient. On the basis of accounting reports of HealthSouth Corporation, which had been caught cheating, the author suggested considering types of checked data and different alternatives of sample size limit. The group of Czech scientists M. Paseková, B.Svitaková, E.Kramá, M.Otrusínová(16) studied the influence of intentional and unintentional accounting errors on the financial stability of 232 enterprises. The data was processed through the non-parametric statistical Friedman test. It was exposed that fundamental reasons for mistakes were the following: tax consequences, income inequality, difficulties in cost determination of stocks, fixed and financial assets. The risk of unintentional mistakes is subjectively estimated as the highest one in the sphere of hypothetical and corrective articles and the lowest one in asset classification. The above-mentioned application of Benford's law and statistical Friedman test is not relevant for the goals of our research.

The selection of multivariate regression as a method of data processing is preconditioned by the following factors:

- regression analysis allows formalizing the connection between analyzed characteristics in contrast to correlation analysis, which only states this connection's existence;
- regression analysis is traditionally used in economics as a method of expression of stochastic (probability) dependence between the examined indicators, characterized by independent variables and a resulting indicator which we earlier determined as the number of accounting mistakes
- in view of a selection of factors, influencing the accounting risks, the requirement of mathematical statistics is fulfilled, which means that for regression analysis application the variables must be independent
- regression analysis allows determining the value of the resulting equation, that is, the level of influence of selected factors on variation in terms of "accounting mistakes"

The regression analysis may be univariate and multivariate. If there is one independent variable, simple regression analysis is applied. In our case there may be several reasons for accounting mistakes independent from each other, therefore we use multivariate analysis. Regression model, in this case, will be expressed through the equation of linear regression.

2.4 The research of risk in accounting and reporting based on a multivariate regression model

In the foundation of risk research based on a multivariate regression model, there is to be a comprehensive approach, including the assessment of accounting and reporting risk into the line of risk management process in accounting (Figure 1).

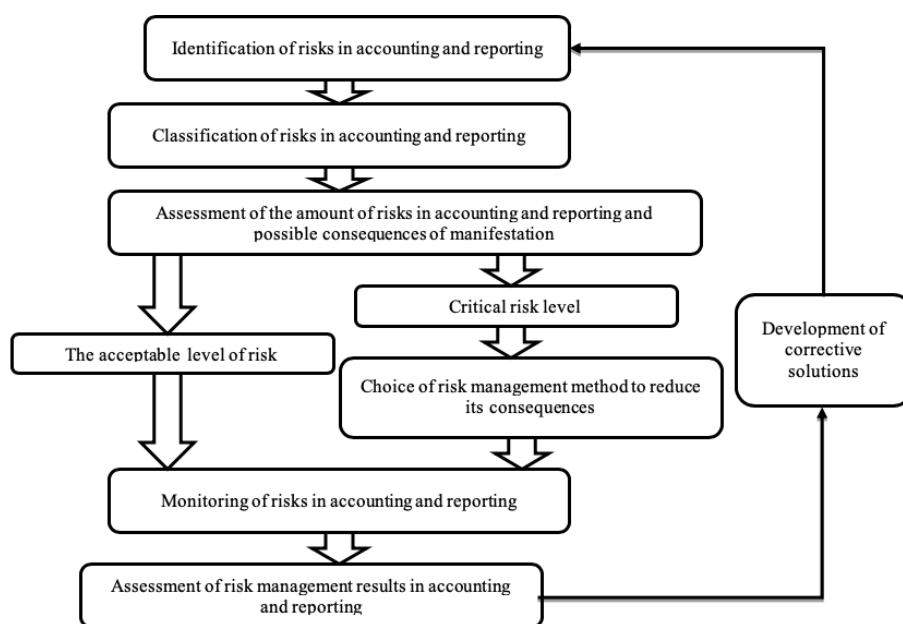


Figure 1. The Chart of Risk Management Process in Accounting and Reporting

Source: A.E.Shevelev(17)

The very process of risk research in accounting and reporting based on multivariate regression model includes the procedure of risk identification and determination of groups of independent factors influencing the level of accounting mistakes.

Let us consider the risk factors of accounting information given in the works of modern researchers.

As the results of accounting firms' research over 2012-2013, Taiwanese scientists have concluded that their successful activity is essentially influenced by accountants' experience and

accountant certificate. (18) Rumanian researchers revealed that psychological rejection of risks on the part of accountants influences professional creativity, but it is not the determining factor in the selection of accounting policies, which mainly depend upon the financial motivation of accountants. (19)

The authors of this article state the hypothesis that the level of accounting risk determined by the number of mistakes is influenced by the indicators of personnel professionalism and the effectiveness of their work (Table 1).

Table 1. The Significant Factors for the Number of Mistakes Made by the Examined Employee

| <i>Indicators of personnel professionalism</i> | <i>Indicators of effectiveness of employees' work</i> |
|--|--|
| <i>significant for the number of made mistakes</i> | |
| The number of attested employees, persons | The employee workload measured as the number of documents per one employee |
| The number of employees satisfied with their work, persons | Automation level of accounting, point |
| The number of employees with seniority over 3 years, persons | Reporting periods of primary accounting documents from the date of their execution, days |

Source: Compiled by the authors. Generated by the authors of the article on the basis of the stated hypothesis and analysis of statistical inquiry records of Russian companies.

2.5 The differential features of methods of risk assessment in accounting and reporting based on multivariate regression model in comparison with any other methodical tools

Suggested in this article, methods of risk assessment in accounting and reporting, based on the multivariate regression model, has the following features, compared to models and approaches pointed out by other authors:

1) As a quantitative criterion of accounting risk, we suggest the use of "the unit of accounting mistake" as a quantitative measure of resulting indicator in contrast to "intentionally misstated indicator of financial reporting"; (20)

2) It unites quantitative and qualitative factors, influencing the level of accounting mistakes, while other authors suggest the use of either qualitative or quantitative factors; (17)

3) This article's authors suggest the application of multivariate linear regression model instead of the M-score approach, offered by M. Benish and used by S.V. Arzhenovskiy and A.V. Bahteev (20) for identification of intentional misstatement of records.

4) The calculations, made on the base of the suggested method, confirm the authors' hypothesis on the fact that the resulting regression equation allows definitely determining the probable number of mistakes in accounting over the reporting period and, if necessary, forecasting their value. This is the difference from another method, which is based on the regression model and designed to estimate the dependence of financial results on nonfinancial, out-of-balance and market indicators. (21)

3 Results

3.1 The building of regression model of accounting risk assessment

The authors have made a quantitative description of main factors selected for model building via distributing questionnaires to

experts (personnel of accounting service, internal and external auditors) as well as using accounting data of a Russian construction company which formed the report article “Cost

price” over the period of 2014-2017. The number of accounting mistakes over the reporting period was taken as a resulting indicator. The received information is presented in Table 2.

Table 2. The Results of the Survey on the Number of Accounting Mistakes and Values of Most Essential Factors Influencing Them

| Period | The number of mistakes | Probable factors | | | | | |
|-----------------------------|------------------------|--|-------------------------|----------------------------------|---|---|--|
| | | Employee workload, document per person | Automation level, point | The number of attested employees | The number of employees satisfied with their work | The number of employees with seniority over 3 years | Reporting periods of primary accounting documents from the date of their execution, days |
| | Y | X1 | X2 | X3 | X4 | X5 | X6 |
| 1 st quarter2014 | 112 | 1 000 | 2 | 5 | 11 | 7 | 15 |
| 2 nd quarter2014 | 110 | 1 056 | 2 | 5 | 11 | 7 | 14 |
| 3 th quarter2014 | 120 | 1 204 | 3 | 5 | 11 | 7 | 20 |
| 4 th quarter2014 | 119 | 1 219 | 3 | 5 | 11 | 7 | 16 |
| 1 st quarter2015 | 68 | 883 | 3 | 5 | 11 | 7 | 7 |
| 2 nd quarter2015 | 50 | 791 | 3 | 5 | 11 | 7 | 7 |
| 3 th quarter2015 | 71 | 1 039 | 3 | 4 | 10 | 6 | 4 |
| 4 th quarter2015 | 70 | 1 034 | 3 | 5 | 10 | 6 | 10 |
| 1 st quarter2016 | 77 | 808 | 3 | 5 | 11 | 7 | 10 |
| 2 nd quarter2016 | 112 | 1 165 | 3 | 5 | 11 | 7 | 11 |
| 3 th quarter2016 | 93 | 1 047 | 3 | 5 | 11 | 7 | 7 |
| 4 th quarter2016 | 81 | 1 002 | 3 | 5 | 11 | 7 | 7 |
| 1 st quarter2017 | 39 | 616 | 4 | 5 | 11 | 7 | 7 |
| 2 nd quarter2017 | 42 | 760 | 4 | 5 | 11 | 7 | 7 |
| 3 th quarter2017 | 31 | 742 | 4 | 6 | 11 | 7 | 6 |
| 4 th quarter2017 | 48 | 866 | 4 | 6 | 11 | 7 | 8 |

Source: Compiled by the authors. Data was collected by one of this article’s authors – Irina OlegovnaKlimova – on the Russian companies “InzhStroyService” LLC and “ElectrostroyPlus” LLC according to accounting records forming the report article “Cost price” over the period of 2014-2017:

- values of factors X4 and X5 were received through a questionnaire of accounting and finance employees of a large Russian construction company
- values of factors X1,X2,X3 and X6 were determined based on internal documents of a company.

- data on the real value of the resulting indicator Y was collected from the conclusion on the internal and external audit.

In order to determine the type of correlation the graphic method was used which showed a linear connection between resulting indicators and exposures (Figure 2).

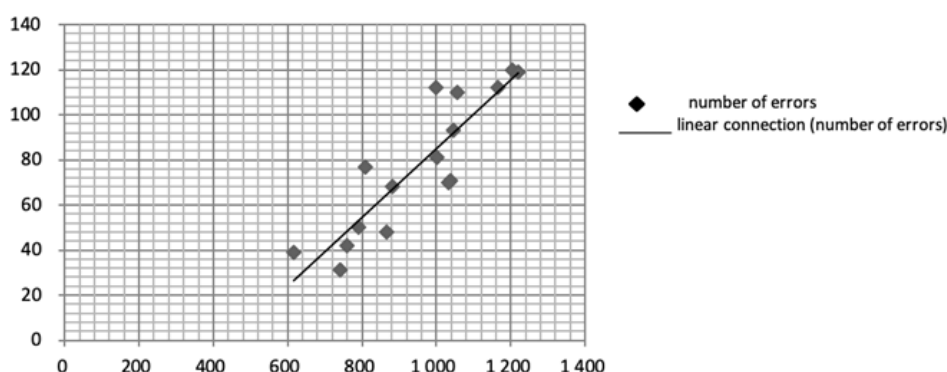


Figure 2. Determination of Connection Type via Graphic Method (Linear Connection)

Source: Compiled by the authors. The figure illustrates the connection between the number of errors and influencing factors, calculated by one of this article’s authors - Irina OlegovnaKlimova

Thus, for quantitative description of connection between the number of errors and influencing factors the multivariate linear regression model was chosen:

$$y = f(x, b) + e = b_0 + b_1x_1 + \dots + b_nx_n + e \quad (1)$$

where y – dependent (explicative) variable;

x = x(x₁, x₂, ..., x_n) – vector of dependent (explicative) variables;

b - vector of parameters (to be determined);

e – random error (deviation).

On the basis of questionnaires results the authors selected the following key factors, influencing the number of accounting errors (y):

- Employee workload, documents per person – x_1 ;
- Automation level, point – x_2 ;
- The number of attested employees, persons – x_3 ;
- The number of employees satisfied with their work, persons – x_4 ;
- The number of employees with seniority over 3 years, persons – x_5 ;
- Reporting periods of primary accounting documents from the date of their execution, days – x_6 .

For model specification, the authors determined paired correlation coefficients (r_{xy}) of corresponding characteristics (y and x_i).

$$r_{xy} = \frac{\sum(x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum(x_i - \bar{x})^2 \sum(y_i - \bar{y})^2}}$$

(2)

Where x_i - i-value of exposure;

\bar{x} – an average of exposure;

y_i – i-value of resulting indicator;

\bar{y} – an average of resulting indicator.

This allowed us including into the regression model the factors which are most essentially connected with the resulting indicator and simultaneously not connected between each other (Table 3).

Table 3. Paired Correlation Coefficients Matrix, Built Through the Microsoft Office Excel Software Progra

| | Y | X1 | X2 | X3 | X4 | X5 | X6 |
|----|--------|--------|--------|-------|-------|-------|----|
| Y | 1 | | | | | | |
| X1 | 0,886 | 1 | | | | | |
| X2 | -0,768 | -0,593 | 1 | | | | |
| X3 | -0,344 | -0,325 | 0,456 | 1 | | | |
| X4 | 0,092 | -0,186 | 0,079 | 0,496 | 1 | | |
| X5 | 0,092 | -0,186 | -0,186 | 0,496 | 1 | 1 | |
| X6 | 0,786 | 0,629 | -0,505 | 0,009 | 0,245 | 0,245 | 1 |

Source: Compiled by the authors. The matrix was built by one of this article's authors - Irina Olegovna Klimova.

As follows from the analysis, the most essential effect on the resulting indicator, given insignificant multicollinearity, was exerted by such factors as employee workload (x_1), accounting automation level (x_2), reporting periods of primary accounting documents from the date of their execution (x_6).

The refined regression model is written as:

$$y = b_0 + b_1x_1 + b_2x_2 + b_3x_6 \quad (3)$$

As a result of processing the initial data via methods of correlation and regression analysis through the use of "Regression" tool of the Microsoft Office Excel software program the following regression equation was received:

$$y = 21,593 + 0,087x_1 - 15,319x_2 + 2,162x_6 \quad (4)$$

3.2 Verification of quality of the received regression model of accounting risk assessment

In the course of verification of the quality of the received regression model, we decided to exclude the constant b_0 as

statistically insignificant. The evaluation of the statistical significance of regression coefficients was made according to the Student criterion (t^*):

$$t^* = \frac{b_i^*}{\sigma^*[b_i^*]}$$

(5)

where

b_i^* - estimation of i-value of the theoretical regression coefficient,

$\sigma^*[b_i^*]$ - standard error of the i-value regression coefficient

The received values of t-statistics modulo are compared to the critical value t_{kp} for the set reliability (p) and freedom degree (k). If $t^* > t_{kp}$, the hypothesis on regression coefficient b_i being equal to zero is rejected. For the examined model the number of freedom degrees is $k = 4$. Given the reliability $p = 0,05$, $t_{kp} = 2,776$.

Regression coefficients in the initial model are correspondent to the following t-statistics values t^* (Table 4).

Table 4. T-statistics Values for Regression Coefficients in the Initial Model

| Regression coefficient | t-statistics |
|------------------------|--------------|
| b_0 | 0,809 |
| b_1 | 4,756 |
| b_2 | -3,244 |
| b_3 | 3,121 |

Source: The values have been calculated by one of this article's authors - Irina Olegovna Klimova.

Thus, the constant b_0 is advisable to be excluded from the model.

As a result of made correction the refined regression model is written as:

$$y = 0,098x_1 - 11,985x_2 + 2,195x_6 \quad (6)$$

Selected regression coefficients for this model are statistically significant ($t_{kp} = 3,182$, $p = 0,05$, $k = 3$) (Table 5).

Table 5. T-statistics Values for Regression Coefficients in the Refined Model

| Regression coefficient | t-statistics |
|------------------------|--------------|
| b_1 | 8,361 |
| b_2 | -5,281 |
| b_3 | 3,218 |

Source: The values have been calculated by one of this article's authors - Irina Olegovna Klimova.

The authors have made further estimation of the quality of the refined regression equation. For this purpose, such indicators as determination coefficient (R^2) and multiple correlation coefficient (R) have been calculated.

$$R^2 = 1 - \frac{\sum_{i=1}^m (y_i - \hat{y}_i)^2}{\sum_{i=1}^m (y_i - \bar{y})^2} \quad (7)$$

$$R = \sqrt{1 - \frac{\sum_{i=1}^m (y_i - \hat{y}_i)^2}{\sum_{i=1}^m (y_i - \bar{y})^2}} \quad (8)$$

where

R^2 – determination coefficient

R – multiple correlation coefficient

y_i – i-value of resulting indicator

\hat{y}_i – calculated value, corresponding to i-value of resulting indicator

\bar{y} – an average of the resulting indicator

With the use of determination coefficient (R^2) variance degree of the resulting indicator, explained by the regression model, was determined equal to 0,991.

With the use of multiple correlation coefficient (R), the authors estimated the strength of the cooperative effect of factors on the result, and it was equal to 0,995. Given the value R close to 1, the regression equation gives an accurate description of factors influencing the result.

Made calculations confirm the authors' suggestion on the fact that the received regression equation allows definitely determining the probable number of mistakes in accounting over the reporting period.

4 Discussion

The issues of risk assessment methods are considered by the researchers of various countries. West practice demonstrates the active development of standardization processes in the sphere of quantitative evaluation and management of risks both at the national and international levels. The confirmation is national standards of Australia and New Zealand, Japan, Great Britain, Canada, UAE, and many other countries.

The periodicals are rich with publications in the area of risk management, given the fact that risks are mainly considered from generally theoretical and practical points of their management, assessment methods as well as from the points of their reflection and disclosure in accounting and reporting.

Variety of viewpoints, stated in modern publications, is related to three aspects of the handled issue:

- outward appearance and quantity of accounting and reporting risks
- the range of factors, influencing the quantity value of risks
- the ways of defining the correlation between accounting risks and influencing factors.

Regarding the outward appearance and quantity of risks, there are different points of view, alternative to that of the authors. For example, American scientists E.M.Coyne, J.G. Coyne, K.B. Walker (22) speak on risk dependence on the stage of the life cycle of accounting data preparation or on information needs of its users. We suppose that the number of mistakes hinders the satisfaction of needs of information users. The stage of the life cycle of accounting data preparation, where the mistake has happened, does not matter. We believe that the universal characteristic of accounting risk is an accounting mistake, reducing the reliability of reporting information and depriving it of its major consumer property – authenticity. Expression of damage in monetary terms may be various for different users of accounting data.

The issue of the range of factors, influencing the quantity value of accounting risks remains open as well. As risk factors, the researchers point out different, not always internal, factors

Finnish specialists H. Höglund, D.Sundvik (23) revealed the positive effect of extended accounting outsourcing on the quality of accounting reports of small Finnish companies and the lack of such effect on the number of mistakes in a solution of the elementary reporting issues. We suppose that outsourcing as an independent factor of changing risk level is not advisable since the crux of the matter is qualification and workload of employees.

Another type of external risk factors, which are supposed by modern researchers to be used in accounting risk assessment, is the so-called "country" risk. This kind of risk is estimated by such international rating agencies as Standard & Poor's, Moody's, Fitch Ratings, etc. (24) We agree with the Russian scientist R.V. Kashbraziev (24) that political and economic risks may exert sufficient influence on the number of mistakes in accounting and reporting. In our opinion, the application of "country" risks in assessment models of accounting risks is advisable only when an investor selects from different countries' companies with principally different external risks. In the rest of the cases, the model will be overloaded with excessive variables.

The issue of the ways of defining the correlation between accounting risks and influencing factors is not settled either. For example, H. Paino (25) considered cases of fraud in accounting reports misleading investors and creditors, based on logistic regression. Apart from different modifications of regression, there are other types of quantitative and qualitative assessment of correlation between accounting risk and influencing factors. Suggested by foreign and Russian researchers, risk assessment models in accounting have significant meaning for risk evaluation in economic entities.

Regression models, used by most of the mentioned researchers, are accepted by this article's authors as the instrument base of research of factors influencing accounting data misstatement.

Comprehensive use of the theoretical background of risk management and methods of analysis and modelling allowed the authors determining as a risk indicator the probable number of errors in accounting and factors, influencing it.

Both foreign and national authors consider the currently used quantitative assessment methods of accounting misstatement risks as a consequence of unscrupulous data preparation. These irregularities impede the efficiency of the internal control system.

Apart from intentional accounting and financial mistakes as a result of conspiracy or abuse on the part of management, there

are other factors influencing the authenticity of reports, and it is possible to devise control procedures to minimize them. Having examined the experience of different countries' research on accounting risk assessment methods, the authors have tried a scientific-based selection of factors, which may be related to the number of accounting errors. As a result, we have selected such factors as employee workload, automation level, reporting periods of primary accounting documents from the date of their execution. The quality estimation of the regression model of accounting risk assessment confirmed the authors' suggestion that it allows determining the probable number of mistakes in accounting over the reporting period.

Nowadays the methodology and practice of quantitative risk assessment in accounting and reporting are not completely set. The stated research results, their scientific and practical parts reflect the current vision of accounting risk, its reasons and ways of identification on the base of internal data of Russian companies for the second decade of XXI century. Surely, in the course of evolution of reporting paradigms, methods and systems the risk manifestation will be changing. The gradual transition from double entry to tetra graphic paradigm of accounting and reporting implies the switch of risk characteristics to certain users' interests. Automation of processes of record of nonfinancial indicators will enable deeper research of social and psychological and other reasons for accounting risks. Integration of reporting systems with the external environment will allow for more precise estimation of influence which both internal and external factors exert on accounting risks. This is yet for us to come. Further, we will suggest the research results corresponding to the current state of accounting systems

5 Conclusion

The authors of this article demonstrate the research on accounting and reporting risks, based on the work of researchers from different countries and direct experience in the sphere of accounting and reporting in Russia. The authors defined an accounting mistake as the universal characteristic of accounting risk, reducing the major consumer property of accounting data – authenticity. The authors considered methods of accounting and reporting risks assessment, illustrated in theory and widely accepted in practice.

Basing on the experience of foreign and national researchers, the authors suggested regression assessment model of risk indicator – the number of accounting mistakes made over the reporting period, which allowed for the identification of influencing factors.

As a result of the information processing via correlation and regression analysis with the use of the Microsoft Office Excel software program, the factors which exert the most essential influence on the resulting indicator are following: employee workload, accounting automation level, reporting periods of primary accounting documents from the date of their execution.

In the course of quality verification of the regression model of accounting risk assessment, we decided to exclude the constant b_0 as statistically insignificant, which allowed for the increase of variance degree of the resulting indicator up to 0,991. Computed using the statistical data, multiple correlation coefficient showed that the factors, selected for the regression equation, essentially influence the result, and this fact confirms the direct connection between influencing factors and the number of accounting mistakes.

Suggested by the authors accounting risk assessment model is useful for the determination of venture accounting areas and may be applied by the accounting department, internal and external auditors.

The worthwhile direction for future research is the unification of this model, which implies an indication of reasons for accounting mistakes, common for most companies. The result may be the regression model ready to be applied by the wide

range of companies, which will sufficiently enhance the risk assessment in accounting and reporting. Here it is necessary to provide the possibility of the model specification for each specific company.

Literature:

1. International Standard on Auditing 315 (revised) "Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment" (enacted in the territory of the Russian Federation by Order of the Ministry of Finance of the Russian Federation № 192n dated 24.10.2016). Available from: http://www.consultant.ru/document/cons_doc_LAW_207071/
2. International Accounting Standard (IAS) 1 "Presentation of Financial Statements" (enacted in the territory of the Russian Federation by Order of the Ministry of Finance of the Russian Federation № 217n dated 28.12.2015) (last updated on 27.06.2016) (as amended effective of 01.01.2018). Available from: https://www.minfin.ru/common/upload/library/no_date/2012/IAS_01.pdf
3. International Financial Reporting Standard (IFRS) 7 "Financial Instruments: Disclosures" (enacted in the territory of the Russian Federation by Order of the Ministry of Finance of the Russian Federation № 160n dated 25.11.2011) (last updated on 26.08.2015) (as amended effective of 01.01.2018). Available from: http://www.consultant.ru/document/cons_doc_LAW_124550/
4. The National Standard of the Russian Federation GOST R ISO/IEC 31010 — 2011. "Risk management: methods of risk assessment". Available from: <https://docviewer.yandex.ru/view/218878983/?>
5. The Ministry of Finance of the Russian Federation Information № PZ-9/2012 "About the disclosure of information on the economic activity risks of a company in annual accounting reports". Available from: http://www.consultant.ru/document/cons_doc_LAW_135436/
6. Olsen C, Gold A. Future research directions at the intersection between cognitive neuroscience research and auditors' professional skepticism. *Journal of Accounting Literature*. 2018; 127-141.
7. Montenegro TM, Brás FA. A review of the concept and measures of audit quality across three decades of research. *International Journal of Accounting, Auditing and Performance Evaluation*. 2018; 14(2-3):183-253.
8. Seckler C, Gronewold U, Reihlen M. An error management perspective on audit quality: Toward a multi-level model. *Accounting, Organizations and Society*. 2017; 62:21-42.
9. Perreault S, Wainberg J, Luippold BL; 2017. The research of Perreault, S., Wainberg, J., Luippold, B.L. was focused on influence of auditor – client relations' character on accounting mistakes and quality of reports (Perreault, S., Wainberg, J., Luippold, B.L., 2017). The result of their experiment showed negative effect of positive mutual relations between client and auditor on identification of mistakes.
10. Hung Y-S, Cheng Y-C. The impact of information complexity on audit failures from corporate fraud: Individual auditor level analysis. *Asia Pacific Management Review*. 2018; 72-85
11. Koroleva DA. Bayesian approach in strategic management accounting and audit. *Proceedings of 2017 20th IEEE International Conference on Soft Computing and Measurements*, July 2017, 7970708, Pages 740-742
12. Alilou M, Moulai I, Rafatneia K, Alilou M. The methods of dealing with common mistakes in preparing the financial statements. *World Applied Sciences Journal*. 2012; 17(1):5-9.
13. Drábková Z. CFEBT risk triangle as a tool for detecting and evaluating risks of accounting records: A case study. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. 2018; 66(3):747-754.
14. Fang VW, Huang AH, Wang W. Imperfect Accounting and Reporting Bias. *Journal of Accounting Research*. 2017; 55(4):919-962.
15. Nigrini MJ. Audit sampling using Benford's law: A review of the literature with some new perspectives. *Journal of Emerging Technologies in Accounting*. 2017; 14(2):29-46

16. Paseková M, Svitaková B, Kramá E, Otrusínová M. Towards financial sustainability of companies: Issues related to reporting errors. *Journal of Security and Sustainability Issues*. 2017; 7(1):141-154.
17. Shevelev AE. Risks in accounting at the modern enterprise. *Bulletin of the South Ural State University*. 2014; 4(8):68-71.
18. Lee C-C, Cheng P-Y. Effect of the critical human resource attributes on operating performances. *Chinese Management Studies*. 2018; 12(2):407-432.
19. Bogdan V, Meşter II, Matica D. Insights into some psychological triggers that affect judgements, decision-making and accounting choices. *Economic Research-Ekonomska Istrazivanja*. 2018; 31(1):1289-1306
20. Arzhenovskiy SV, Bahteev AV. Quantitative methods of assessment of intentional accounting misstatement risk. *Records and Statistics*. 2016; 3(43):42-56.
21. Dechow PM, Chad WG, Larson R, Sloan RG. Predicting Material Accounting Misstatements. *Comporary Accounting Research*. 2011; 1(28):17-82.
22. Coyne EM, Coyne JG, Walker KB. Big Data information governance by accountants. *International Journal of Accounting and Information Management*. 2018; 26(1):153-170.
23. Höglund H, Sundvik D. Financial reporting quality and outsourcing of accounting tasks: Evidence from small private firms. *Advances in Accounting*. 2016; 35(1):125-134.
24. Kashbraziev RV. Quantitative approach to the risk assessment of an international cooperation. *Finance and credit*. 2014;46 (9622):45-58.
25. Paino H. Financial Reporting Risk Assessment and Audit Pricing. *Global Journal of Management and Business Research*. USA: Global Journals Inc. 2012; 12(15):57-65

Primary Paper Section: A

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DEVELOPMENT OF MODERN POLYTECHNIC EDUCATION AT PHYSICS CLASSES

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Abstract: This article considers one of the aspects of the improvement of studying physics at secondary schools, i.e. the problem of polytechnic education in the new environment. It also considers problems of teaching physics at secondary schools according to tasks of polytechnic education in the context of innovative technologies. On the basis of the scientific and pedagogical analysis of the theory and practice of polytechnic education at general secondary schools, the paper shows the need to enhance the polytechnic training of students when studying physics.

Keywords: scientific and technical progress, innovative development, modern production, polytechnic training, physics, technology, methodical complex, career guidance.

1 Introduction

At present, secondary schools are faced with the task of training students to have knowledge corresponding to the latest achievements of scientific and technological progress. In the context of industrial and innovative development, a school should give not only a certain amount of knowledge but also teach future specialists to think creatively, independently improve, update and develop their knowledge. Our analysis showed that there are still many unresolved and unexplained issues related to the formation of polytechnic knowledge and skills in teaching the basics of science in secondary schools. Nevertheless, the problem in question should find a new scientific rationale and the practical solution given the tasks of the reform of secondary and vocational schools. (1-2) In this regard, it is necessary to further improve the polytechnic education that implies the theoretical and practical mastery of general scientific fundamentals of modern industry and technology as its most important component. In the framework of teaching physics, the most important problems are the outdated method of implementing the polytechnic principle and the low level of formation of the students' polytechnic skills and abilities.

When studying physics, the possibilities of implementing the polytechnic principle are not fully realized; educational and skill levels remain insufficient.

In the authors' opinion, the following issues are unresolved in this area:

1. Content and principles of selection of applied material reflecting the physical foundations of the modern industry.
2. Development of a complex of didactic tools that contribute to the formation of polytechnic knowledge and skills in the process of studying physics in a secondary school.

Thus, this problem becomes the central task of improving secondary schools, given the prospects for accelerating socio-economic, scientific and technological progress. The urgency of this problem is caused by integrative processes in secondary education and cardinal changes in modern material production (3-4)

1.1 Purpose and Objectives of the Research

The problem, therefore, is as follows: polytechnic education must be viewed as an integral part of lifelong education that has its own comprehensive subject of study and a specific contribution to the development and mentoring of students. Polytechnic education has its structural components and successive stages. (5-7)

The purpose of the work is to develop a new didactic system of polytechnic education of students in the process of teaching physics in a secondary school.

In accordance with the purpose of the research, its objectives are as follows:

1. To identify the main trends in the development of polytechnic education at physics classes in secondary schools on the basis of the achievements of domestic and foreign pedagogy.
2. To determine the basic requirements of modern industry as well as scientific and technological progress to the content of polytechnic training of schoolchildren in the process of studying physics.
3. To develop a model of the system of polytechnic education of students in the process of teaching physics in general secondary schools.

The research is based on the following hypothesis: if the developed didactic system for studying physics in secondary schools, including the content, methods, and means of polytechnic education, ensures effective learning of polytechnic material and corresponds to the level of polytechnic training and vocational guidance, then the task of teaching physics in secondary schools will be successfully solved and will promote comprehensive students' development.

2 Materials and Methods

This paper examines one of the aspects of improving the study of physics in secondary schools, i.e. the problem of polytechnic education in the new environment. Modern scientific and technical progress requires the training of highly qualified personnel. The starting point in the training of such personnel is a secondary school, the tasks of which for the current stage are defined as follows: to give each student a deep knowledge of the fundamentals of science, to establish a close relationship of training with productive work, to improve the preparedness of young people for work in material production and for a sound choice of profession. In this connection, the tasks of the development of polytechnic education in the process of teaching physics in the context of modern industry become particularly relevant. (6,8) Knowledge of the polytechnic foundations of modern, intensively developing industry will not only help young people quickly master a particular specialty but also make it professionally demanded and mobile. Polytechnic education is considered here as a process and result of the assimilation of systematized knowledge related to the general scientific foundations of modern industry, the formation of the skills and abilities necessary to handle typical (accessible) means of labor common in various industries. The ultimate goal of such an education is the development of personality traits that allow to freely navigate the entire system of public production. (9-10)

Certain aspects of polytechnic education were studied by scientists in different periods of the development of pedagogical science. Problems of polytechnic education were and remain one of the main problems in pedagogical science and secondary school practice. Physicists-methodologists L.I. Reznikov, V.G. Razumovsky, A.V. Usova, A.I. Bugayev, N.T. Glazunov, S.U. Goncharenko, B.M. Mirzakhmedov, Y.D. Schukin, and others devoted their research to these problems. They determined the content of the applied material of the physics course, they revealed the structure of polytechnic knowledge and methods of familiarizing students with the main branches of modern industry.

The value of physical knowledge, which forms the basis of scientific and technological progress, is only growing from year to year. They are in demand in various fields of human activity. In the device and the principle of operation of household appliances, industrial mechanisms, physical laws are used.

Polytechnic education and upbringing involve the study of the technological aspects of the modern scientific picture of the world, familiarity with the methods of obtaining and processing materials, energy, information, technical design of the environment. Students need to master the principles of modern production, master practical skills in the use of tools, machines, and mechanisms. The solution of the problem of maximal growth of a person's creative abilities is possible under the condition of strengthening polytechnic education, comprehensive development of students' abilities for subsequent successful work in various fields. Therefore, in a modern high-tech world and a developing information society, it is necessary to study physics, delving into the essence of phenomena and processes.

Currently, in the system of secondary education, there is some separation of theory from practice. The task of polytechnic education should be not only the study of the fundamentals of science but also polytechnic workshops, conducting experiments and laboratory work, practical exercises related to the elements of research, technical creativity. In physics lessons, schoolchild acquires skills to work with various instruments and equipment, learns to identify and fix their problems. Being engaged in the design and manufacture of existing models, students acquire not only practical skills in processing materials, designing, reading electrical circuits and drawings, but also are attached to research activities and scientific research.

The use of the principle of polytechnic education in the study of physics, mastering the general methods of activity implies the creative participation of schoolchildren in the implementation of successive stages of the teaching and research cycle and the transformation of knowledge into work. This type of activity includes the formulation of an idea, the search for and assimilation of the necessary applied knowledge as a means of realizing the results of the basic sciences, determining the methods of their application, and conducting the necessary research. Mastering the methods of research activity is usually attributed to the essential characteristics of a high level of education of modern youth. Therefore, it is necessary to form students' ability to research and create in the context of systematically attracting them from the school bench to various forms of research. It is this type of activity that directly contributes to the self-development of a person's creative powers and self-improvement.

The implementation of the principle of polytechnic education in the study of physics allows you to create conditions for the conscious professional self-determination of students in accordance with the abilities, inclinations, personality traits.

Modern education sets students in addition to learning goals and objectives, and the tasks of developing and formation of research skills. One of the methods of scientific research is modeling, in the process of which essential interrelations between elements of the system are identified and fixed.

Educational and research, design activities of students, as a specific scientific and methodological direction, has a long tradition. In modern conditions, when the issue of reducing the academic load is quite acute, the idea of research activity as a tool to improve the quality of education increases. For example, in the conditions of a gymnasium or lyceum, the main task of research activities may be the organization of specialized training on its basis, therefore it is necessary to develop courses of choice, allocate appropriate time for research projects, and organize a system of individual counseling and project protection. In institutions of additional education, excursion and expeditionary work may be effective. In any case, the tasks and forms of research should be consistent with the contingent of students, their age characteristics, the specifics of cognitive

motivation. Student research is one of the types of educational technology where the main is educational research. In this case, students are supposed to perform educational research tasks with a previously unknown solution, which are aimed at creating ideas about the object or phenomenon of the surrounding world, and are carried out under the guidance of, for example, a subject teacher.

Educational research is an educational process that is implemented on the basis of the technology of research activities, while simultaneously solving the tasks of polytechnic education. The main characteristics of it can be considered the selection in the educational material of the problem points, suggesting variability; hypothesis formulation; the collection of material, its comparison, and analysis, followed by the choice of one of the advanced versions as the true one. Participation in such creative activity forms a cognitive position when a person not only actively responds to changes in the world but also feels the need to seek and find the unknown before. The main result of the implementation of an educational and research project is to get an idea of a particular phenomenon, process, and technological cycle.

3 Results

The basis of the teaching of physics should be based on the polytechnic principle, which implies the polytechnic content of the educational and labor activities of schoolchildren and a set of didactic means aimed at theoretical assimilation and mastery of this content. (11-12)

The scientific novelty of the work is as follows:

1. The most important trends characterizing the development of polytechnic education in the process of studying physics in secondary school have been identified.
2. The conceptual foundations of improving the polytechnic education of students in the process of teaching physics in secondary schools are revealed.
3. The methodical system of polytechnic training of students at physics classes in secondary school has been developed.

The practical significance of the work lies in determining the content and system of polytechnic knowledge and skills when teaching physics in secondary school. It also lies in the development of a methodological complex related for modernizing polytechnic education and enhancing the polytechnic training of students in the process of studying the physical fundamentals of the main areas of scientific and technological progress.

The authors have attempted to build the structure of polytechnic training materials for physics in accordance with the main areas of scientific and technological progress. Such a system of communicating knowledge within the physics course ensures the observance of a stricter sequence when forming polytechnic knowledge and skills.

The authors considered how polytechnic training of schoolchildren is carried out in teaching physics using the example of the five main areas of scientific and technological progress (automation; energy; electronics and computing; creation of materials with the necessary technical properties; ecology).

As a result of the analysis, the authors systematized polytechnic training materials for physics in accordance with the main areas of the technological revolution. The authors developed the system of polytechnic training materials where they indicated not only the links between the sections of the course and the main areas of scientific and technical progress in the economy but also provided the applied material that can be used by teachers when studying a particular topic. Such systematization of applied physics issues determines the content of polytechnic training materials and enhances the professional orientation when studying this physics course in secondary school (2,12-13).

During the physics course, a teacher brings students to an understanding of some important technical and economic problems being solved for further scientific and technological progress based on the achievements of modern physics. On the assumption that the polytechnic education is the basis of the right career guidance for children, a teacher consolidates and expands the practical skills of students. For example, when studying molecular physics and electrodynamics, a teacher introduces schoolchildren to the physical problems of thermal power engineering and electrometallurgy, conducts a physical experiment based on some technological processes related to the properties of solid, liquid and gaseous bodies. (14-15)

When studying thermodynamics, children consider the principle of operation of heat engines and ways to enhance their efficiency. A teacher draws the attention of students to modern internal combustion engines, their difference from the previous ones and discusses with children the professions associated with them: driver, auto mechanic, engine manufacturer, etc. Then he/she talks about the construction of thermal power stations. He/she reports that they mainly use large units with a capacity of 500 and 800 thousand kW, which use high-quality steam. This enables higher efficiency and, consequently, leads to fuel economy and increased productivity. The use of such large units also provides savings in materials and funds for the construction of power plants. The attention of students is drawn to the professions associated with the installation and commissioning of units of thermal power plants, to the profession of people maintaining such stations. When studying the properties of liquids, the application of capillary phenomena in engineering, agriculture, and everyday life, the principle of the flotation process of enrichment of polymetallic and iron ores used by metallurgical plants, is considered. A teacher talks about the professions of ore enrichment specialist, a machinist of magnetic separators, flotation engineers, machinists of mills, crushers, and conveyors; introduces students to the production of iron concentrate, pellets, and sinter. (16)

When studying the properties of solids and plastic properties of metals, a teacher uses a local example of a metallurgical plant; explains to children what is the principle of the rolling of metals. A teacher not only tells students about the use of the deformation of metals in the industry but, at the same time, acquaints them with a certain range of professions engaged in the metallurgical industry. When considering the passage of electric current through different environments, a teacher explains to students the physical foundations of a number of technological processes (using electrolysis to produce aluminum and other non-ferrous metals, using electroplating technology and spark discharge for processing metals and cleaning gases in electrostatic precipitators; using arc discharge for welding metal parts). When studying the material, a teacher consults on the professions of people participating in these technological processes, draws the attention of students to the important role of electricians in all heavy and light industries, to different specializations depending on the nature of an industry.

Particular attention is paid to the study of devices that are electronic components of radio, automation and remote-control equipment (vacuum diode and triode, cathode-ray tube, photoresistor, semiconductor diode, and triode, etc.). (17) When studying the topic of magnetic properties of matter, a teacher focuses students' attention on the application of the magnetic properties of iron ore during its enrichment, talks about the essence of this technological process and about using the properties of ferromagnetic materials to create magnetic separators. After that, an excursion is held to an iron ore enrichment works, where students learn about the process of enrichment of iron ore and the range of professions of people employed in this industry.

In physics methodological literature, the approach to the problems of the content of polytechnic education changes substantially due to the increasing role of science in technological progress and the rise in the scientific level of compulsory school education. Previously, the basis of

polytechnic education in many disciplines, and in physics in particular, often consisted in the selection of technological examples that reveal the practical use of physical laws. Analysis of the results of the educational process showed that this approach is ineffective, it led and leads to a fragmentary knowledge of students, the insufficient formation of skills and abilities. In this regard, the methodology suggests that in order to successfully implement a polytechnic principle, the material included in the school physics course should cover the basic theories, laws, and concepts interpreted according to the modern level of development of physics and technology, enhanced role of theory and technology and simultaneous applied orientation of the course. (18-19)

The determination of the subject of polytechnic education, as well as of any other branch of the educational process, is, first of all, to clarify:

- a) the subject of study determined in turn by the object and nature of study;
- b) contribution to the education of an individual;
- c) content structure of a given branch;
- d) place of a given branch in the educational process.

Thus, the educational object of polytechnic education is technology; the subject of study is the general educational fundamentals of technology; the educational subject is the formation of personal pre-vocational traits in the field of transformative human technological activity.

Polytechnic education consists in the students' assimilation of the basic laws of the structure and functioning of technological systems, in the study of the fundamentals of technology, and also in the formation of polytechnic skills. In the process of polytechnic training, a contribution is made to the development of all aspects of the students' personality. In other words, polytechnic education is of cognitive, educational and developmental value. (19)

Polytechnic training, which implies the theoretical and practical mastery of the general scientific foundations and objects of modern technology, enriches the social relations of schoolchildren, the means of their activities and the norms of conscious behavior. This has a significant impact on the process of socialization of students. Such training helps young people to determine their place in social practice in accordance with their abilities, which cannot but have a positive effect on the formation of the personality as a whole. (20)

The key to the success and effectiveness of polytechnic education in the process of teaching physics is a systematic approach to it. We have developed a conceptual model of the pedagogical system of polytechnic education in the process of teaching physics in school, consisting of three subsystems:

- goals and objectives of polytechnic education in school;
- the mechanism for implementing the principle of polytechnic education in the course of physics
- the results of polytechnic education in the process of teaching physics.

The target component of the polytechnic education system is formed under the influence of the following factors such as the socio-economic needs of society, scientific and technological progress, and environmental conditions. The goal of polytechnic education is the formation of the comprehensive development of the student's personality and its preparation for work in the field of modern engineering in the process of teaching physics. (21) This main goal is achieved by solving the following main tasks such as the formation of knowledge about the scientific foundations of modern production; the formation of a system of polytechnical skills and practical mastering of the elements and objects of equipment and technology; development of creative abilities and technical thinking of schoolchildren; preparing students for work in the field of modern technology. In accordance with certain tasks, the content of polytechnic education is formed, which is implemented as an interrelated

activity of a teacher and a student. Moreover, the activity of the teacher, aimed at uncovering the physical foundations of modern production, involves guiding students' perception of polytechnic material considering the level of formation of skills and abilities, showing the practical application of the studied laws and theories in engineering. The student should not be a passive listener: his active cognitive-transformative, research and production, independent productive, exploratory, creative, research, labor activity are alleged.

The mechanism for implementing the principle of polytechnic education in the physics course includes:

- the study of the physical basis of the specific technical device;
- students' understanding of the technical principle underlying the design properties of the device;
- training in the ability to use specific technical devices that implement the studied physical and technical principle.

As a result of purposeful interrelated work of a teacher and a student, polytechnical knowledge and skills are formed based on the specified mechanism. The study showed that the use of specific methods and means of training, forms of organization of studies is ultimately predetermined by the goals and objectives of polytechnic education. Separate methods and means of instruction, forms of organization of studies are directed, as a rule, to the solution of one goal (task) of polytechnical training of students. Therefore, to solve the problem being studied as a whole, it is necessary to use a set of methods and means of training, forms of organization of studies.

Based on the analysis, we highlight the most significant features of the concept of polytechnic education:

- 1) the principle of the organization of training;
- 2) the principle of teaching;
- 3) the option of practical implementation of the idea of professional education;
- 4) education based on familiarity with the technique;
- 5) the principle of the formation of labor skills of students, etc.

In this regard, at the present stage of development of society, polytechnic education can be understood as education based on an acquaintance of students with the basics of modern production, teaching schoolchildren how to work with computers, as well as familiarizing them with the basics of mechanized and automated work.

As practice shows, the better polytechnic education is organized in school, the easier it is for students to choose the right path to the profession. Polytechnic education guarantees the professional interest of the younger generation is the basis of professional growth, and therefore significantly affects the social life of a person. (22) Thus, polytechnic education is the foundation of the professional training of the younger generation.

The requirement of modern production such as ensuring the maximum growth of human creative abilities implies the recognition as the leading function of polytechnic education the development of students' abilities necessary for their successful future work in various fields.

At the lessons of physics, biology, chemistry and other school disciplines, students can get acquainted with the scientific foundations of most industries, learn how the common technical devices work and how they are arranged. As practice shows, one of the tasks of polytechnic education is the formation and development of polytechnic skills (skills to work with devices, installations, etc.) in the course of a diverse physical experiment, laboratory work, and physical practice.

In physics classes, students acquire skills in working with various instruments and devices, learn how to adjust them, and identify deficiencies.

4 Conclusion

The developed methodology of polytechnic education at physics classes in secondary schools differs from the preceding ones by:

- the content of selected polytechnic material;
- consideration of individual technical objects and technological processes of modern industrial and agricultural production;
- consideration of the development of socio-economic and scientific-technical progress;
- the creation of a new methodical system for polytechnic training of schoolchildren;
- usage of the means and methods of active transformation of polytechnical knowledge in the process of their application in various situations.

Thus, the polytechnic education of students develops their conscious, creative approach to their activities in the field of engineering and technology, enriches the sphere of their social relations and provides the norms of conscious behavior, as well as a broad basis for the choice of a profession related to engineering. All this helps to determine their place in society in accordance with their abilities, which is a condition for the further formation of a comprehensively developed personality.

To date, several classification systems of polytechnic knowledge and skills have been defined in the scientific and pedagogical literature. But the complexity of the problem is mainly determined by the fact that many authors often use various specialized criteria as a classification basis. Considering the modern requirements for the school, the content and organization of labor polytechnic education, the further development of the content and methods of polytechnic education should, we believe, follow the path of identifying and studying the general fundamentals of modern production.

Literature:

1. Shamalo TN, Mekhnin AM. Development of the value-based views on students in the process of polytechnic training at the lessons and during extraclass work on physics. *Pedagogic Education in Russia*. 2012; 5:230-4.
2. Imashev G. Development of knowledge in the physics course. Germany: Palmary Academic Publishing; 2012.
3. Imashev GI. Politekhnicheskoe obrazovanie uchastikhysya v processe obucheniya fizike v sredney shkole [Polytechnic education of students in the process of teaching physics in middle school]. Atyrau; 2006.
4. Imashev G. Modern problems of polytechnic education the course of physics. *Russian Journal of Earth Sciences*. 2012; 12(12):53-7.
5. Rieffel E, Polak W. *Quantum Computing: A gentle introduction*. New York: The MIT Press; 2011.
6. Imashev G. Innovative approaches to development of polytechnic education in the process of teaching physics at high school. Atyrau: Kh. Dosmuhamedov Atyrau State University; 2011.
7. Imashev GI. Applied aspects of polytechnic education in the physics course. *IEJME - Mathematics Education*. 2016; 11(7): 2099-2111.
8. Imashev GI. Innovatsionnyye podkhody v razvitiy politekhnicheskogo obrazovaniya v protsesse obucheniya fizike v sredney shkole [Innovative approaches to the development of polytechnic education in the process of teaching physics in middle school]. *Mir nauki, kultury, obrazovaniya*. 2012; 1(32):67-70.
9. Bugayev AI. *Methodology of physics teaching at high school*. Moscow: Prosveshcheniye; 1981.
10. Bennett J. *Teaching and learning science. A guide to research and its applications*. London: Continuum; 2003.
11. Imashev G, Syrbayeva S, Galimzhanova M, Yergalieva GT, Muftakh N, Aldigulova NZ. The computer based technology of teaching quantum physics. *Life Science Journal*. 2014; 11(6):102-5.

12. Jain VK, Verma A. *Physics of Semiconductor Devices: 17th International Workshop on the Physics of Semiconductor Devices 2013*. New York: Springer; 2014.
13. Atkins PW, Friedman RS. *Molecular Quantum Mechanics*. Oxford University Press; 2005.
14. Pinskiy AA, Razumovskiy VG. *Physics 8*. Moscow: Education; 2007.
15. Altshuler YB, Chervova AA. The Pedagogical System Model of Teaching Electrodynamics at Schools. *Science and School*. 2008; 3:15-7.
16. Bell S. Project-based learning for the 21st century: Skills for the future. *The Clearing House*. 2010; 83:39-43.
17. Shamalo TN, Mekhnin AM. Forming value orientations of students during polytechnic training at physics lessons and extracurricular work. *Pedagogical Education in Russia*. 2012; 5:230-4.
18. Mias C. L'autobiographie raisonnée, outils des analyses de pratiques en formation [The reasoned autobiography, tools of analysis of practices in formation]. *L'Orientation Scolaire Et Professionnelle*. 2005; 34(1):29-47.
19. Abykanova BT, Rakhmetova MT, Imashev G, Tumysheva AA, Moldasheva RN, Ilyasova SS, Shahimova AA. Development of polytechnic knowledge and abilities in the course of studying Physics. *International Journal of Environmental and Science Education*. 2016; 11(10):3595-3606.
20. Atutov PR. *Politekhnikeskoye obrazovaniye shkol'nikov: sbliizheniye obshcheobrazovatelnoy i professionalnoy shkoly* [Polytechnic education of schoolchildren: the convergence of secondary and vocational schools]. Moscow; 1986.
21. Semrad J, Skrabal M. Polytechnic education today and the dual system. *International Journal of Teaching and Education*. 2017; 5(1):54-66.
22. Prabhu V, Lim P, Wee KS, Gardner H. Proceedings of the 14th International CDIO Conference: A case study of integrated multidisciplinary project-based learning in polytechnic education. Kanazawa Institute of Technology, Kanazawa, Japan; 2018

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THE FUNDAMENTALS OF DIGITAL ECONOMY

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Abstract: Nowadays, the economy is a dynamic and complex system that determines the relationship between partners both within markets and countries, and at the global level. Moreover, thanks to scientific and technological achievements, network marketing is being increasingly used. Markets within the Internet have begun to develop. At this stage of development, it should be noted that the economy is based on the widespread use of digital technologies. This phenomenon has been termed as "digital economy". The digital economy is an economy that ensures the transition to the next level of interaction, the opportunities, and threats of which we are just beginning to realize now. Currently, the subject of the digital economy is being actively studied by both Russian and foreign scientists. They all concur on one thing: digitalization of all aspects of society, including economic activities, is one of the main trends of the global economy.

Keywords: Scientific and technological progress, Technological revolution, Innovations, E-economy, Digital economy, High-tech industries, Information and communication technologies, Digital technologies.

1 Introduction

The relevance of digitalization for economic entities is thanks to the following features of the modern economy:

- Globalization of the system of economic relations, which has created the opportunity to use the economy of scale when implementing IT technologies in the production and distribution of a product;
- Growth of the capabilities of digital technologies in terms of saving time and money for companies and organizations in the course of development of these technologies;
- Standardization of the processes of individual manufacturers and unification of their tasks, which ensures an acceptable capacity of IT solutions used for certain production tasks and enables to scale the results of using IT technologies in production and distribution;
- Intensification of the competition at all levels of the system of economic relations, thereby forcing companies and organizations to look for ways to improve their economic performance.

The experience of most of the world's leading economies shows positive effects, whereby digital technologies act as the drivers of their growth.

At the same time, digital technologies give rise to many new challenges at the country and company level. These challenges are associated with digital security and the development of digital culture, changes in the labor market and the qualification requirements for specialists, the issue of retrieving knowledge and necessary information from the huge data flow, as well as the ability to use this new knowledge in management.

However, there are new opportunities for business, including the possibility of personalizing customer relationships, rapid design and experimentation, sharing resources without owning them, management algorithmization, the organization of after-sale services for equipment and many others.

It is important that not only global, but also the national experience of the successful use of digital technologies, the

creation of business ecosystems and the development of platform technologies, both in large and small businesses, is being accumulated. But it is only at the stage of its inception and is used in a limited number of business areas.

The digital economy is a broader concept, which covers a variety of areas, including medicine, transportation, utility services, finance, education, tourism, and other industries. It relies on digital connectivity and smart technologies, "big data" and algorithms for its processing, as well as creates a virtual and mixed reality. However, all researchers note that the humankind has just embarked on a path towards the digital economy and may be in for many surprises on this path.

2 Materials and Methods

Amid strengthening global geo-economic and geopolitical processes, the economy is a dynamic and complex system that determines the relationship between partners both within markets and countries, and at the global level. Moreover, thanks to scientific and technological achievements, the network structure, which is present in almost all spheres of life and business, is being increasingly used. Markets within the Internet are actively developing.

As a result, at this stage of development, it should be emphasized that the economy is based on the widespread use of digital technologies. This phenomenon has been termed as "digital economy." (1-19)

The digital economy is an economy that ensures the transition to a whole new level of transformation, the opportunities and threats of which we are just beginning to realize now. (1-8, 20, 21)

The term "digital economy" has a long history. It was coined amid the rapid and active formation of information and communication technologies. Naturally, the global and overall development of the world wide web (the Internet) and various possible mobile communications is the basis of the digital economy. However, it should be noted that the development of the Internet has also had a real impact on all sectors of the economy and social activities, in particular, on manufacturing, medicine, healthcare, etc. The World Bank defines the digital economy as "a system of economic, social and cultural relations based on the use of digital information and communication technologies." (22) The most important value of the digital economy is its ability to improve production and services, as well as to increase productivity.

It is obvious that digital technologies are changing the business landscape and business models of companies. They are undermining the foundations of many economic sectors and requiring a global transformation. A case in point is the taxi service and the publication of encyclopedias. Digital technologies are creating new business branches, enabling to collect huge amounts of data about consumers, equipment, etc. in pretty much real-time mode.

It is believed that the main advantages created by the digital economy are enjoyed by representatives of households such as consumers, which is beyond controversy. In fact, thanks to the digital economy, the modern consumer has received a number of added value services such as numerous benefits available in social media networks, as well as the opportunity to purchase goods at lower prices, e.g. electronic versions of various literary publications or musical works. Thanks to e-commerce, the buyer can make bargain purchases with immediate payment.

Digitization of economic processes is becoming increasingly popular, covering both the information and communication industry and all sectors of the economy. E-commerce, digital agriculture, "smart" energy systems, unmanned vehicles,

healthcare, HR and all areas you are dealing with will be affected by the digital revolution. (23-25)

Nowadays, most corporations, regions, countries are building their own development strategy based on the digital economy and are creating their long-term competitive advantage by developing new technologies, goods, and services in the existing market.

There are many approaches to defining the term “digital economy”. The first definitions, as well as the concept of the modern digital economy, appeared at the end of the last century, when in 1995 the American computer scientist Nicholas Negroponte used a metaphor about the transition from the processing of atoms that which make up the matter of physical substances, to the processing of bits that make up the matter of software codes. He said that the material substances considered as raw materials and products have their drawbacks such as the physical weight of goods, the need for resources to produce them, the use of space to store them, as well as the logistical costs and problems associated with their transportation. In his opinion, the advantages of the digital economy as a “new” type of economy could include the absence of the physical weight of goods after being replaced by data volume, the lower cost of resources used for the production of electronic goods, several times smaller space occupied by products (usually electronic media), as well as the instant global movement of goods via the Internet. (20, 21)

A look at digitalization from the perspective of a time horizon enables us to see the features which usually escape the notice of those who write about it based on modern experience and context only. In particular, when considering the process of digitalization in retrospect, it is clearly seen that as digital technologies develop they become more efficient and cost-effective in comparison with analog technologies. At first, the use of digital format was justified only in exceptional cases (as a rule, this was due to communication systems and the confidentiality of transmitted information). Then digital electronic computers appeared. They were used for complex calculations in space and nuclear industries. But, as it turned out, these machines were quite universal, and therefore they gradually replaced analog computers in other sectors of the economy. Digital format and digital technologies rapidly took

over the entire media sphere, and then begin to penetrate into a variety of industries, including energy, construction, and transportation. Thanks to the lower cost of searching for information and negotiating contracts, the new forms of business based on networks and digital technologies emerged. (1-8)

However, there are a number of outstanding critical issues, in particular, those related to the impact assessment of the digital economy’s advantages in the context of individual sectors, regions and even social groups. It is still unknown how the supply chains of lagging sectors will be established, how the level of employment will change in regions that are far from the digitization process. To what extent will the role of transnational corporations in the functioning of national and regional economies increase?

In the 20th century these issues were not resolved and clearly formulated. Finally, their processing requires a number of complex applied studies that will help us to better understand, systematize and find reliable solutions for future threats in our country.

“Every year there are more and more similar examples that can only confirm what each of us sees in our environment. It is safe to say that we exist in the age of the digital economy. In addition to the above quote, let’s analyze the statistics suggesting that today more than 7.7 billion search queries are made in Google every day. About 152 million calls are made via Skype, 58 million messages are sent by Twitter, 36 million purchases are made through Amazon, and 2.3 billion gigabytes of information are stored on the Internet. Every minute and every day, 204 million emails are sent, 2.4 million messages are posted on Facebook, 72 hours of videos are posted on YouTube, and 216000 photos are displayed on Instagram.” (22)

Based on the assessment of an effect from the digital economy on the development of society, the importance of reports made by the Organization for Economic Cooperation and Development (OECD). In 2008, a declaration for the future of the Internet economy was signed in Seoul, South Korea. The main themes of this declaration, as shown in table 1, were the seven most important issues for the development of the digital economy.

Table 1. Discussion Area in the G20 Leaders’ Seoul Declaration for the Development of Digital Economies and for the future of the Internet Economy

| Theme | Description |
|---|--|
| Internet access with high-speed infrastructure as the basis of the Internet economy | Development of high-speed networks, including improved access to existing networks; development of competitive conditions; ensuring convergence; IPv6 configuration; use of radio frequency spectrum; improvement of the rating system |
| Digital content and “green” information and communication technologies (green information and communication technologies (ICT)) (hereinafter – “green ICT”) | Digital content was considered in terms of the development of a relevant market and the creation of local content. Public sector information, protection of intellectual property rights, etc. Green ICT meant the efficiency of using ICT resources, the creation of sensor networks, smart applications and ICT networks |
| Development of “smart” Internet applications | Intelligent traffic, networks, power supplies etc., including the spread of smart devices |
| Cybersecurity & privacy | The issues of information systems and networks security, personal data protection and digital identity management were discussed. |
| Powers and consumer protection | The B2C e-commerce market was discussed, especially with regard to online payments and mobile payments for buying digital content; selling via social media networks and using joint purchase schemes, as well as dispute resolution and damage settlement |
| Ensuring transparency of the Internet economy | Ensuring openness to the creation of innovation and growth of the Internet economy, as well as to the development of Internet policy principles |
| Ensuring global interaction in the Internet economy | Creating conditions for increased access to the Internet and related ICT in developing countries, including the development of cloud technologies. |

According to a survey conducted by the OECD in 2016, 32 member states and 6 other partner countries commented on the existing development strategy of the digital economy. The Australian government announced that starting from September 2017 a digital economy strategy would be launched. In the United States, the creation of a digital economy program was announced in 2015. In 2016, a digital economy panel was

established under the Ministry of Commerce in order to create a number of tasks and solutions for the development of the Internet, information security and innovative advertising, etc., which are implemented by the private companies. (9-11) Table 2 shows the OECD digital economy development rating based on the analysis of existing policies and surveys.

Table 2. Priorities for the Development of the Digital Economy in OECD Countries

| Objective | Priority for 2017, rating | Priority for 2020-2022 expected rerating | Number of countries that have included this goal into their strategy |
|--|---------------------------|--|--|
| Improving e-government services | 1 | 0 | 21 |
| Developing telecommunication infrastructure | 2 | -3 | 22 |
| Promoting ICT-related skills and competencies | 3 | 0 | 16 |
| Increasing security | 4 | +2 | 18 |
| Increasing access to data | 5 | +1 | 6 |
| Promoting ICT adaptation in small and medium-sized business | 6 | -1 | 3 |
| Promoting ICT adaptation in specific sectors such as healthcare, education, etc. | 7 | +1 | 3 |
| Strengthening personal data protection | 8 | 0 | 5 |
| Strengthening digital identity | 9 | 0 | 2 |
| Developing the ICT sector, including international markets | 10 | 0 | 2 |
| Promoting e-commerce | 11 | -1 | 5 |
| Addressing global challenges, Internet government, climate change, etc. | 12 | +1 | 1 |
| Strengthening consumer protection | 13 | -1 | 0 |
| Expanding Internet access for the elderly and disabled | 14 | +1 | 4 |
| Keeping the Internet open | 15 | 0 | 4 |

Based on the results of a survey conducted by OECD experts, much attention should be paid to the objectives of “improving e-government services” and “developing telecom infrastructure”. Such objectives are reflected in national strategies (mentioned 21 or 22 times).

However, it should be noted that the survey was conducted for developed countries (the USA, all countries of Western Europe, Canada, Japan, Australia, and New Zealand, South Korea, Singapore, Hong Kong and Taiwan, Israel, and Brazil, Mexico, Russia, but they are included more by territorial superiority rather than by the level of development). In this context, the challenges associated with combating the negative effects of digitization, including unemployment, technological and economic backwardness and growing dependence on a small number of transnational (large) companies, were ignored for the purposes of this survey.

3 Results and Discussion

The modern digital economy has emerged thanks to a thirty-five-year development of the information society. It is customary to divide the years of its development into several stages.

The first stage of development of the digital economy was marked by the creation of the Internet. Since the 80s, the Internet has tended to grow rapidly, increasing the number of its users. Initially, the Internet was conceived as a means of e-mail transmission, but as it expanded, much more opportunities for data transmission appeared. Thanks to the globalization of the Internet, the first online store was eventually opened in 1994. This event heralded the emergence of global e-commerce. (23)

After that, many owners of large businesses began to invest in the development and support of e-commerce. Also in 1994, along with e-commerce, an American bank Stanford Federal Credit Union launched the first Internet banking system, thanks to which it was possible to pay bills and transfer funds using a personal computer (of course, if connected to the Internet). Online shopping and online banking became the foundation and enabled the digital economy to move to the next stage of development and to begin globalization (Table 3).

Table 3. Development Stages of the Digital Economy

| Stages | Periods | Description |
|---------|-------------|--|
| Stage 1 | 1980 – 1994 | The inception of the digital economy. The emergence of the global Internet. Development of telecommunication technologies and means of communication. |
| Stage 2 | 1994 – 2011 | The emergence of the first economic entities operating in the digital economy: online store and Internet banking system. Global penetration of the Internet in all spheres of everyday life. |
| State 3 | 2011 – 2019 | The advent of virtual goods and e-money. Development of commodity exchange, electronic payment for services. The beginning of a separation of the digital economy from the real sector of the economy. |

During the meeting held in Antalya in 2015, G20 leaders recognized that we are living in an era of the Internet economy that creates both opportunities and challenges to global growth. The G20 is a forum of governments and governors of central

banks of the countries with the most developed and developing economies. In turn, the digital economy is defined as a new stage of economic development, which is based on the integration of physical and digital objects in terms of production and

consumption. (24) It includes various economic activities in which the use of digital information and knowledge plays a key role. Modern information networks are increasingly becoming an important area of activity, and the effective use of information and communication technologies (ICT) acts as an important driver to improve performance and optimize the structure of an economy.

The Internet, cloud computing, “big data”, “the Internet of things”, financial and other new digital technologies are used to collect, store, analyze and share information in digital format and transform the ways of social interaction. (21) Thanks to digitized, network-based and intelligent technologies, the modern economic activity is becoming more flexible, dynamic and “smart”.

Currently, the digital economy is characterized as follows:

1. High growth rates;
2. Rapid implementation of innovations;
3. Widespread use in other economic sectors. (12)

It is an increasingly important driver of global economic growth and plays a significant role in accelerating development, increasing the productivity of existing industries, creating new markets and industries and achieving sustainable growth.

The development of the digital economy is a complex process. It is based on several fundamental ideas. They are presented in Figure 1.

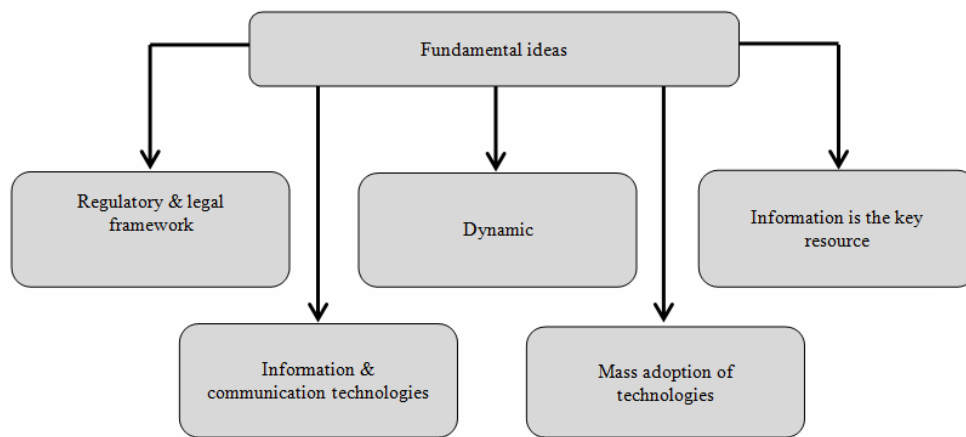


Figure 1. The Fundamentals of the Digital Economy

Firstly, the information economy depends on whether there is a regulatory and legal framework associated with the development and approval of relevant regulations governing the development of information and communication technologies.

Secondly, the development of the digital economy is based on information and communication technologies.

Thirdly, the information economy involves the massive introduction of information technology in all spheres of society.

Fourthly, in this area, the labor and capital productivity grows at a more dynamic pace than in other industries.

Finally, the key resources of this economic model are information and knowledge.

Currently, the digital economy is developing rapidly. The digital transformation is expected to change the functions and position of digital technologies in business, namely, from the ancillary position to the central one. General principles of digital economy development are presented in Figure 2.

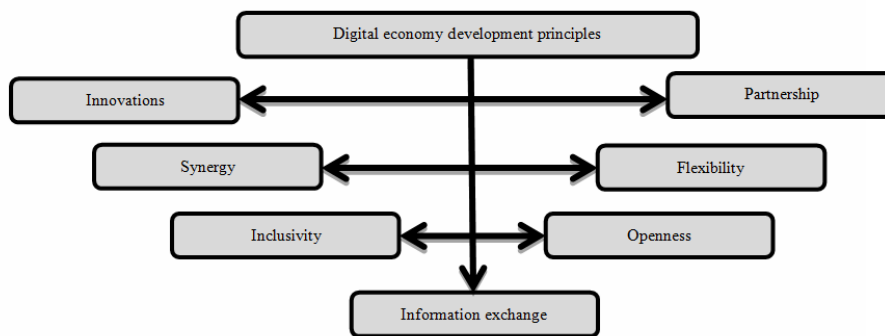


Figure 2. General Principles of the Digital Economy Development

Technological innovations in ICT, as well as innovations in ICT-related economic activities, are among the most important factors for inclusive economic growth and development. Besides, it is also necessary to invest in human resources, because without them it will be impossible to operate some technologies. It is human capital that is believed by many experts to be the basis for the future economy. (17)

A closer partnership between the G20 members by sharing knowledge, information, and experience as part of a constructive dialogue to overcome differences and respect different interests may contribute to strengthening cooperation, addressing common issues and developing the global digital economy. (15)

Since the digital economy affects almost all economic and social sectors and is closely linked to other areas, in particular, innovation and the new industrial revolution, the G20 members work together to seek synergies in the discussion of these issues in order to avoid duplication and ensure consistency. (16)

The changes are primarily driven by increasing flexibility in the workspace. Today it is possible to work anywhere and from any device that has access to the Internet. This is made possible by technologies that allow safe and efficient operation.

Increasing access to and use of digital technologies in order to bridge the digital gap between different segments of the population should remain key elements in the development of the digital economy. They promote universal participation regardless of gender, a region of residence, age, disability or economic status. The digital economy can simplify the process of ensuring sustainable development for the period up to 2030. (21)

For the digital economy of exceedingly great importance are the following factors: the private sector, the favorable and "transparent" legal, regulatory, political conditions, as well as the promotion of open and competitive markets. Among other things, compliance with competition and consumer protection laws, which improve the access to markets and technological

innovations in ICT, as well as the growth of the digital economy, plays an important role.

Information is exchanged in order to ensure economic growth, trust and security. The free exchange of information, ideas and knowledge are essential for building a digital economy. They have a positive impact on development. There is also strong support for ICT policies aimed at preserving the global nature of the Internet, facilitating the cross-border flow of information and providing legitimate online access to information, knowledge, and services to Internet users at their choice. At the same time, there is a need to comply with the regulatory framework on the protection of privacy and personal data, as well as intellectual property rights, as they play a crucial role in building confidence in the digital economy. In order for ICTs to remain a reliable factor in accelerating economic development, it is necessary to increase the level of security of the critical infrastructure in which they are used. (12)

In view of the above principles governing the digital economy, the priorities for cooperation in the digital economy should be identified. These priorities will contribute to creating an enabling environment for its development, accelerating economic growth and ensuring the availability and accessibility of digital technologies. To achieve these goals, you need to consider the priorities that are presented in Figure 3.

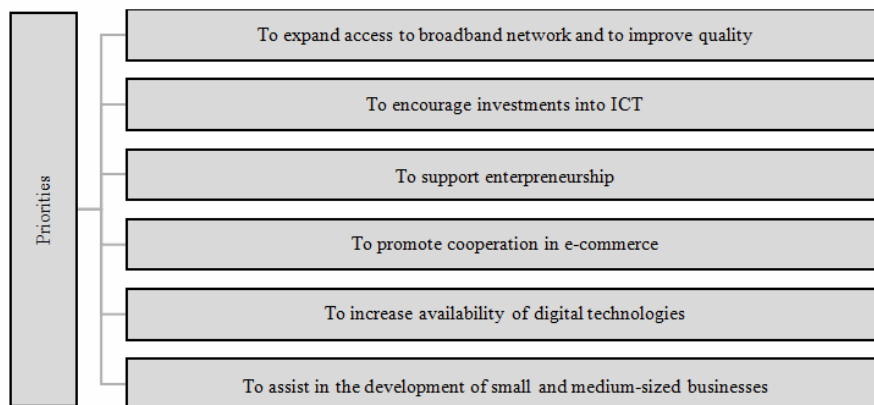


Figure 3. Cooperation Priorities in Digital Economy

The access to broadband networks should be expanded and the quality of traffic should be improved, thus accelerating the creation of network infrastructure and ensuring network cooperation. One should call upon all countries to make the issue of access to the Internet central among their development and growth initiatives. It is important to promote the expansion of broadband coverage, improve bandwidth and quality while ensuring a legally predictable competitive environment. In particular, to explore the possibility of expanding access to high-speed Internet and connecting to this network at affordable prices. (8)

Investment in ICT should be encouraged. This will improve the business environment by developing innovations. It is important to promote public-private partnerships, the establishment of commercial investment funds, as well as social funds for investment in ICT infrastructure. In addition, it is necessary to encourage the organization of events for exchanging investment-related information between ICT companies and financial institutions. (26)

Business support will ensure the transition to digital technologies. Such support can be provided by creating an enabling legal environment and programs aimed at assisting research, development, and innovation, as well as by ensuring proper operation of the capital markets for innovative enterprises. Organizations should leverage the advantages

offered by the Internet in order to promote their products and services on the market.

In order to create a more interconnected network intelligent industrial sector, the state should promote the integration of digital technologies and production. This can involve the use of ICT for improving education, healthcare, and safety, for protecting the environment, as well as for enhancing healthcare and other public services.

Particular attention should be paid to the continuous development of such areas of services as e-commerce, e-government, e-logistics, online tourism, Internet Finance and "shareconomy". The transition to digital technologies in agricultural production, operations, and management, as well as the transformation of the agricultural distribution system on a network basis, should be facilitated.

In order to implement the digital economy model, it is also necessary to create conditions for enabling broadband service providers to expand the range of their services, to offer innovative solutions, as well as to ensure consumer protection and competitiveness. (27)

Another principle is to promote cooperation in the field of e-commerce. The cross-border e-commerce should be facilitated using such reliable digital tools as:

1. Electronic customs clearance;

2. E-documents on commercial transactions;
3. Mutually recognized e-signatures;
4. Electronic and online payments.

Moreover, the cooperation aimed at preventing market access barriers and other barriers should be strengthened. Among other things, the international efforts aimed at measuring e-commerce indicators and estimating the macroeconomic impact from the development of the digital economy should be stepped up.

At the same time, it is important to pay attention to strengthening cooperation in the field of consumer protection and in the development of approaches to the settlement of disputes, thus providing consumers with opportunities geared to the peculiarities of e-commerce within the framework of national laws and regulations. Building user confidence is a key element of the digital economy. (11)

One of the most important principles is to increase the availability, accessibility, and affordability of digital technologies. Its implementation requires various policies and technical means to bridge the digital gap between and within countries, especially between developed and developing countries, regions and groups, as well as to promote universal access, including open access to the Internet, by creating equal digital opportunities for all. The spread of broadband Internet connectivity among the poorest segments of the population, especially among the poorest 20% of the population, as well as residents of the areas with low population density, should be facilitated. Also, one should strive to provide universal and inexpensive Internet access in the least developed countries.

The use of technology in primary and secondary education, as well as in non-formal education, including libraries, museums, and other public institutions, should be promoted in order to reduce the income gap and to develop a workforce for the digital economy. An increase in the number of primary and secondary

school students with full access to educational materials, broadband Internet and digital tools in the classroom should be aimed at.

The use of digital technologies in socially important areas such as food distribution, education, healthcare, benefits, and public administration should be promoted.

However, the digital economy development may pose threats and challenges due to lack of skills or their failure to meet demand. Inequality may also increase as some do not have time to adapt to the changes due to the lack of skills required. Consequently, it is necessary to promote training in digital technologies and preparing a more competitive workforce through cooperation between educational institutions and technical schools, libraries, business, and social organizations. The level of training in digital technologies for all citizens, including youth and the elderly, women and men, people with disabilities, illiterate and vulnerable groups, as well as the population of low-income countries and developing countries, should be increased in order to enable them to become part of the digital economy, while realizing the potential of creating quality jobs, decent work, as well as the potential of income growth and well-being improvement. (23)

The development of micro, small and medium-sized enterprises (MSMEs) should be promoted in terms of ICT in order to develop innovation and competitiveness, as well as to open new market channels.

Among other things, the creation of an accessible digital infrastructure should also be facilitated in order to digitalize the operations of MSMEs. (28-40)

The digital economy is an object of research with a complex structure. Currently, there are several industries. They are presented in Table 4.

Table 4. The Industries of the Digital Economy

| Industry | Description |
|----------------|--|
| 1. E-commerce | It is a kind of commerce in shops, but with obvious difference, i.e. it is carried out through the Internet. Moreover, for this kind of commerce, it is enough to have a virtual store. A potential buyer can contact the seller via a personal computer, choose products posted as catalogs or individual products on the website of the virtual store. The seller may offer both product and service, real estate, banking product, etc. (in accordance with the applicable laws and regulations). The main advantage is that the consumer spends much less time searching for and buying the right product, as well as that he or she can find reviews about a particular company and see the product. As for the seller, the advantage is that it is possible to expand the target audience. |
| 2. E-money | All virtual means of payment |
| 3. E-marketing | A whole range of marketing activities carried out by a company through electronic means. |
| 4. E-banking | Technologies of providing banking services on the basis of orders sent by a customer remotely (without a visit to the bank) by using computer and telephone networks. |
| 5. E-insurance | Insurance services that can be ordered via the Internet. |

The humankind has entered an era of global change. Further penetration of digital technologies into life is one of the characteristic features of the future world. The digital economy is very different from the real economy.

Firstly, it is the virtuality of the digital economy. It can exist only in the virtual world, as it is a set of electrical signals and data that are stored on various media.

Secondly, this model of the economy depends on telecommunication networks and computer hardware. This is the key difference between the digital economy and the real economy. If telecommunication networks and computer technology disappear, the digital economy becomes impossible, because all forms of virtual economic activity are built on their basis.

Thirdly, there is a direct interaction between producers and consumers. The development of information and communication

technologies enables a manufacturer to interact with each end user. It becomes possible to cut out the middlemen.

Fourthly, it is personification. The digital economy makes it possible to produce goods and provide services that meet the requirements and needs not of the average consumer, but of each individual customer.

Fifthly, the high growth rates ensured by the Internet. It is thanks to the development of the Internet that goods and services have become more available. This has led to the demand for products and the growth of the digital economy. (40)

Finally, virtual goods and money. They are the unique property of the digital economy because they cannot exist in the physical domain (i.e. the real economy).

4 Conclusion

Thus, every year the digital economy is becoming increasingly relevant. Thanks to the creation of personal computers and the Internet, as well as their subsequent globalization, the digital economy is now growing rapidly. It enables not only to organize new markets and commerce but also gives a chance to develop small businesses and new organizations. It is also worth considering that this stage is only the "tip of the iceberg". In view of the opportunities afforded by the digital economy, it is possible to achieve new heights of development. Moreover, with its development, the old methods of doing business are gradually being replaced, which also encourages entrepreneurs to further develop and promote their products.

Given the fact that digital technologies have begun to transform economic and social processes, it is necessary to maintain close cooperation both within the country and internationally. In order to maintain a dynamic pace of development, it is necessary to encourage exchanges at various levels involving governments, private sector, civil society, international organizations, technical and academic communities, as well as other stakeholders, such as trade unions and associations, which will enable to exchange views and, hence, to facilitate cooperation in the digital economy.

It should also be taken into account that the new stage in the economic development is significantly changing the world community, countries and the humankind as a whole, including the main spheres of life, i.e. social, economic and political. Significant changes are ahead of each country, its people and government, as well as the relationship between them.

The new way of life transforms a person's position in the world, changes his or her inner world, relationships in the family and with society, alters the usual lifestyle, domestic affairs, family, living environment, socio-economic processes in society, as well as the system of economic relations with regard to property. However, risks, instability, and crises may increase. The digital economy has both advantages and disadvantages for humanity. Of course, there are much more advantages than disadvantages. Therefore, the main thing is to be able to leverage these advantages in order to neutralize the disadvantages.

The expansion of digital technologies and their introduction into the everyday life of a person transforms his or her inner and outer world, which will assume more individual, but at the same time extremely contradictory features. However, the use of digital technologies in business will definitely ensure flexibility for a company to be able to operate in a volatile environment.

Literature:

1. Abuzjarova MI. Tendencies, law of development and economic content of innovative entrepreneurship. *Modern Economy Success*. 2018; 1: 43-50.
2. Bakhtizin R, Evtushenko E, Burenina I, Gaisina L, Sagitov S. Methodical approach to design of system of the logistic centers and wholesale warehouses at the regional level. *Journal of Advanced Research in Law and Economics*. 2016; 1(15):16-25.
3. Borovikova TV. Methodological bases of formation of the intellectual potential of territories in the conditions of innovative economy. *Modern Economy Success*. 2017; 6:46-49.
4. Gadzaov AF, Dzerzhinskaya MR. Mathematical methods of analysis of the periodic components of economic processes. *Modern Economy Success*. 2018; 1:14-18.
5. Gaisina LM, Bakhtizin RN, Mikhaylovskaya IM, Khairullina NG, Belonozhko ML. Social technologies as an instrument for the modernization of social space in the social and labor sphere. *Biosciences Biotechnology Research Asia*. 2015; 12(3):2947-2958.
6. Gladkova VE, Yakhyaev MA, Korolkov VE, Smirnova IA, Litvinenko IL, Pinkovetskaya JS. The access of Russian small enterprises to public procurement markets: data analysis. *Amazonia Investiga*. 2018; 7(15):20-31.
7. Grigorenko OV, Klyuchnikov DA, Gridchina AV, Litvinenko IL, Kolpak EP. The development of Russian-Chinese relations: prospects for cooperation in crisis. *International Journal of Economics and Financial Issues*. 2016; 6(S1):256-260.
8. Gadzikovskiy VI. *The digital processing of signals*. Moscow: SOLON-Pr.; 2015.
9. Kireev SV, Litvinenko IL, Zelinskaya MV, Arutyunova AE, Fateva SV, Shcherbakov VN. Economic clusters: concepts and characteristic features. *International Journal of Applied Business and Economic Research*. 2017; 15(13):123-132.
10. Kiseleva EM, Artemova EI, Litvinenko IL, Kirillova TV, Tupchienko VA, Bing W. Implementation of innovative management in the actions of the business enterprise. *International Journal of Applied Business and Economic Research*. 2017; 15(13):231-242.
11. Kistrin AB, Kostrov BV. *Designing digital devices*. Moscow: INFRA-M; 2019.
12. Kitovoy OV. *Digital business*. Moscow: INFRA-M; 2018.
13. Kupryushin PA, Chernyatina GN. Economic and environmental aspects of rational nature management and optimization of the process of import substitution in the agro-industrial complex. *Modern Economy Success*. 2017; 3:44-48.
14. Kuznetsov AA, Ignatyeva TA, Kuznetsov AO. Strategy and key elements of competitiveness. *Modern Economy Success*. 2018; 1:25-29.
15. Lapidus LV. *Digital economy: e-business and e-commerce management*. Moscow: INFRA-M; 2018.
16. Lipsits IV. *Economics: textbook for college students majoring in Economics*. Moscow: Master's, NITsINFRA-M; 2018.
17. Litvinenko IL. Humancapital as the basis of an innovative economy. *Human. Society. Inclusion*. 2016; 1(25):87-101.
18. Litvinenko IL, Pinkovetskaya JS, Korolkov VE, Protas VF, Solovyh NN, Terskaya GA. Differentiation of small and medium enterprises based on headcount. *The Turkish Online Journal of Design Art and Communication*. 2018; 8(S-SPTMSPCL):2802-2812.
19. Litvinenko IL, Klochko EN, Zelinskaya MV, Polyanskaya OA, Martynenko NK. Features of managing innovative clusters of modern Russia. *Espacios*. 2018; 39(31):23.
20. Roldugin SV, Parinov AV. *The digital processing of signals*. Voronezh: Scholarly book; 2016.
21. Semenov AK, Nabokov VI. *The fundamentals of management* (5th edition). Moscow: Dashkov & Co; 2016.
22. Digital space development strategy for Eurasian Economic Union-2025 [Internet]. Available from: <http://d-russia.ru/wpcontent/uploads/2016/10/strategy.pdf>
23. Luzin VI, Nikitin NP, Gadzikovskiy VI. *The fundamentals of creating, transmitting and receiving digital information*. Moscow: SOLON-Pr.; 2015.
24. Markova VD. *Digital economy*. Moscow: INFRA-M; 2018.
25. Makeeva AA, Chubarova EA, Mishanova VG. Risk management as an element of enterprise management. *Successes of Modern Science and Education*. 2018; 2:10-14.
26. Gorfinkel VY. *The economy of innovations*. Moscow: College textbook; 2015.
27. Devyatkin OV, Akulenko NB, Baurina SB. *The economy of an enterprise (company, firm)* (5th edition). Moscow: INFRA-M; 2018.
28. Litvinenko IL, Pinkovetskaya JS, Sergeeva AE, Laptev SV, Krikliyaya MG, Li AS. Assessment of the financial aspects of small and medium-sized enterprises: Russian experience. *Amazonia Investiga*. 2018; 7(12):287-298.
29. Litvinenko IL, Zernova LE, Kiyanova LD, Korolkov VE, Buevich AP, Protas VF. Public-private partnership based clustering in the sphere of innovations. *Ponte*. 2018; 74(4):152-162.
30. Minakova IV. Social and economic condition of Russia and possibility of its transition to innovative hi-tech model. *Modern Economy Success*. 2017; 6:24-27.
31. Mindlin YB, Litvinenko IL, Zhangorazova ZS, Shichiyakh RA, Veselova NY, Petruk GV. Formation and development of cluster management in the regional economy of the Russian Federation. *International Journal of Applied Business and Economic Research*. 2017; 15(13):201-211.

-
32. Moiseenko ZN. State support of small forms of management in agro-industrial complex: state and development trends. *Modern Economy Success*. 2017; 4:12-17.
 33. Novikov SV. Government stimulation and regulation of Russian innovation producers export expansion. *Modern Economy Success*. 2017; 3:24-27.
 34. Olkhovskiy VV. Assessment of the impact of macroeconomic and demographic factors on the Russian model of employment. *Modern Economy Success*. 2018; 2:31-37.
 35. Shcherbinina AG. Macroeconomic perspective forecasts for business. *Successes of Modern Science and Education*. 2017; 11-12:102-108.
 36. Smolentsev VM, Demin SS, Mezentseva LV, Litvinenko IL, Tupchienko VA. Industrial clusters development in the regional economic system. *Espacios*. 2018; 39(31):5.
 37. Sobina NV, Loginov MP. Project management in commercial banks. *Finance and credit*. 2016; 20:14-23.
 38. Tsareva KV, Nikitina EN. The rationale for the creation of a project management framework creation for implementing project technologies. *The alley of science*. 2017; 5(16):475-478.
 39. Veselova NY, Kurnosova TI, Litvinenko IL, Polozkov MG, Lipchii NV. Research of crises features in regional economic systems: trends and patterns. *Espacios*. 2018; 39(31):21.
 40. Vernigor NF. The system of state support of agricultural production (case study - the example of the Altai territory). *Modern Economy Success*. 2017; 6:7-10.
 41. Farrakhov AG. *Management theory: the history of managerial thought, the theory of organization, the organizational behavior*. Moscow: NITs INFRA-M; 2016.

Primary Paper Section: A, I

Secondary Paper Section: AH, IN

SYSTEM FOR THE DEVELOPMENT OF STUDENTS MOTOR CAPACITY

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Abstract: The formation and development of coordination abilities of students are one of the important areas of mass sports work. So due to motor abilities, students' physical fitness for professional activity is improved. This article analyzes the empirical research, provides recommendations for the formation and development of students' coordination abilities in physical education classes, since the new millennium poses new innovative problems for all generations. To do this, during 2015-2018 the students' attitude to a healthy lifestyle, physical education and sports were monitored using a special questionnaire. The questionnaire was designed for both students and university professors. Such a sociological study included two parts: an interview and respondents' answers to the questionnaire. Students from 11 universities and cadets of military institutes were interviewed. Especially great interest among students in the development of coordination abilities began after their independent model of self-development during their studies at the university. The decisive role in changing this situation is played by the activation of student autonomy and creative approach to the formation and development of coordination abilities and physical qualities while studying at the university, to increasing students' mobility, striving for a healthy lifestyle, systematic physical culture, and sports. As a result of the study, a functional model of formation and development was created, an assessment of the coordination abilities of students, with the help of which a targeted formation of the students' motor and functional physical potential is provided. Coordination of movements with closed eyes - CSZ and CSEP - after the standard load at t 4.43 (p <0.001); t 3.82 (p <0.001) and 3.27 (p <0.01) confirmed a high level of improvement in the development of sensory (sensitive) and precision motor functions in students of the experimental group.

Keywords: Coordination abilities, students, sports mass work, physical activity, health.

1 Introduction

At the present stage of development of civil society, the quality of education is a big problem caused by the acceleration of socio-economic progress, which has aggravated the problems of students' functional preparedness in relation to their own health. If you take the health status of students for 100% at the beginning of training, then before graduation, it worsens by 75%! (1-3)

In recent years, paradigmatic transitions have been observed from the multidisciplinary structure of curricula to activity-oriented qualification characteristics (with a weakening of knowledge, fundamental and humanitarian components); to GEF 3 ++ with the strengthening of knowledge, fundamental and humanitarian components and the weakening of activity-oriented; for GEF 3 ++, combining positive in qualification characteristics and qualification requirements as grounds for a comprehensive assessment of activity-oriented (practical) training of graduates with positive competence in the GEF 3 ++ corresponding to Bologna processes. (4-5) The concept of the development of the Russian Federation until 2020 set the goal of physical development of the population, the achievement of which requires the solution of the problem of improving the quality of the process of physical education and the health of the population. Thus, the main methodological feature of the content of higher education is the underestimation of the role of the motor activity of graduates, which is especially significant in their professional activities. For this purpose, applied physical education has been introduced in modern curricula - modules for sports. Students have the right to choose for themselves sections according to sports or a system of physical exercises for the development of professional coordination abilities and competencies. (6-7)

Now modern students have more time to improve the efficiency and quality of their independent study of science and sports, as there is no urgent need to take care of quality accommodation and nutrition. These problems are assumed by the university

itself, student self-government, as it should be in the leading universities of the world. After the end of the lecture and practical classes, seminars on a schedule, each student has free time, which must be effectively used to improve intellectual and physical abilities. This is indicated by modern scientists, in particular, M.Y. Vilensky. (8, p24).

2 Materials and Methods

2.1 Study Design

The study design consisted of a clearly developed survey plan for 11 universities. For this purpose, a specialized questionnaire was developed and tested. (9, p150, 10) During 2015-2018, students' attitudes toward a healthy lifestyle, physical education, and sports were monitored using a special questionnaire.

2.2 Experiment Participants

The questionnaire was designed for both students and university professors. (9, p154) Such a sociological study included two parts: an interview and respondents' answers to the questionnaire. 1860 students from 11 different universities and cadets of 2 military institutes were interviewed.

2.3 Structure and Objectives of the Developed Program

The sociological analysis showed that students mainly practice a healthy lifestyle, enjoy various sports, try to improve their health with these classes, to live without drugs, to have enough time to relax and use their leisure time rationally. (11-12)

2.4 Limitations of Research and Ethical Issues

The survey involved only students of the main group for health reasons, the questionnaires themselves were nameless. In subsequent surveys, we attracted students with disabilities and took their wishes into account in organizing physical therapy classes. (13)

The departments of physical culture, sociology and political science of the university during 2015-2018 performed a comprehensive sociological study. Analysis of the results of this study shows that more than 60% of students of the Faculty of Humanities are engaged in the main group in physical culture. (1) The rest of the students have limitations in their state of health and are engaged in a special medical group, where most economists, political scientists, financiers, and translators are employed. According to a sociological study, students before entering the university were actively involved in various sports 85% and now would like to practice on a modern sports base: 35% - aerobics, tourism, sports games. (14)

The largest first block, the methodology of which consists of general preparatory and summing exercises performed on the floor and elevations in statics and in dynamics, (15-16) belongs to the initial study stage. These physical exercises are represented by equilibrium components and two main types of equilibrium: static (isometric mode of muscle work, causing specific static manifestations to maintain balance) and dynamic, in which equilibrium is kept in motion:

- maintaining balance for a long time in different initial positions (feet together, feet apart, separately on the left, then on the right legs, in a rack) when performing various physical exercises without objects; (17)
- long-term balance after rotational movements from 1 to 20 times around the vertical axis with a stop first in the pose of the leg together, then separately on the left, then on the right leg and, finally, in the rack; (17)
- long-term retention of balance after rotational movements in the horizontal plane (forward and backward from 1 to 20 times) first in the pose of the leg together, then separately on the left, then on the right leg and, finally, in the pose; (17)

- the long-lasting balance on the left, then on the right foot, in posture after jumping over the line, triangle, square with turning to the right, then to the left; (17)
- maintaining balance in the rack when performing the technique of motor actions on the block simulator device; (17)
- maintaining balance in the rack when performing equipment with the simultaneous active formation of a small lateral equilibrium on the simplest simulator - a training device in the form of a round log with small swings to the sides; (17)
- keeping the balance in a simple stand for the development of balance. (17-18)

At the initial learning stage, we purposefully used static exercises for the formation and development of static equilibrium (on legs), long in time, associated with the first training sessions with numerous and varied tasks for the development of static equilibrium endurance. Our many years of pedagogical experience has shown that in order to master the technique and maintain balance, it is necessary from the first classes to form a long static balance on the legs in different starting positions, as well as in the stand, i.e. bring up static equilibrium endurance. (19-20)

Our system detects and determines on which support leg it is convenient to stand and which side, aided by the simulators used in it. The tasks of the equilibrium development system are based on its components and are associated with great muscular tension. All this requires bringing up the specific static endurance of balance on the legs in different initial positions (ip) in order to preserve it. The balance on the left, and then on the right leg and in the pose, the data ip are unusual conditions for the performance of motor coordination tasks by students, causing significant tremor of all muscle groups of the legs, which makes it much more difficult to control movements. When using the system, students acquire a richer and more diverse motor experience, they more easily extrapolate movements in complicated conditions, have higher mobility of the nervous system with risky coordination actions and overcoming themselves. (21-22)

3 Results and Discussion

In diverse situations in the workplace, in everyday life, there are increased requirements for physical fitness and coordination of movements by M.Y. Vilensky. (8, p24)

The most effective and affordable way to form effective physical fitness and coordination of movements in physical education classes was able to identify, define and substantiate using preparatory means for passing the control standards. The process of formation of physical fitness for the recovery of students in physical education classes at the university was carried out under the condition: determining the essence of developing students' physical fitness in physical education classes as a harmonious combination of physical qualities, maintaining balance in static postures, controlling movement in three-dimensional space (spatial coordination), fast and timely motor response in the implementation of the motor act (reflexometry); the use of special tools for the development of physical fitness and coordination of student movements in physical education classes; the effectiveness of the development of physical

qualities and coordination abilities to control the body in space in five active points of the anthropological structure of the body; combinations of theoretical knowledge and means of physical culture in teaching and training classes of students for solving various motor tasks. (22-24)

In accordance with this, the following tasks were solved:

1. Determination of the essence, structure, and content of the preparatory exercises for the delivery of standards for physical culture and the development of coordination abilities of students in physical education classes.
2. The study of the pedagogical possibilities of preparatory exercises for the delivery of standards for physical culture in the formation of coordination abilities of students in physical education classes, comparing the motor fitness and functional state of students of the control and experimental groups.
3. The substantiation of the experimental methodology for the implementation of the pedagogical possibilities of preparatory exercises for the delivery of standards for physical culture in the formation of the coordination abilities of students in physical education classes.
4. The effectiveness of the means of preparatory exercises for the delivery of standards for physical culture on the coordination abilities of students.

At the same time, the obtained data of foreign scientists on the study of physical activity of physical culture in education and sports were used; empirical: observations, questioning, interviewing, testing, individual and group conversations on the technique of controlling movements in a future profession and life, individual interests of students in sports, research and training tasks and exercises during the educational and experimental process with an assessment of their qualitative achievements in the formation of motor functions and in individual work on the principle of feedback (teacher - student). (7.25)

As a result of the study, a system of preparatory exercises for passing physical education standards was developed, possessing a coordinating and developing orientation, and a methodology for training sessions that ensure the effective formation of physical fitness and coordination abilities in the pedagogical process of students' physical education. Inclusion in the physical education of students of preparatory exercises performed with open and closed eyes, which provides a high level of formation of coordination and physical abilities in physical education classes. The pedagogical possibilities of preparatory exercises for the delivery of standards for physical culture in the formation of student coordination abilities are determined. In the training process, a natural relationship was revealed: the effective positive impact of preparatory exercises for passing physical culture standards on the formation of students' coordination abilities in a pedagogical experiment, which is the basis for the inclusion of these exercises in the process of physical education to accomplish the tasks of forming students' coordination abilities in the classroom physical culture. (26-27)

To determine the identity of coordination abilities and physical fitness of the observed groups of students, as well as the adequacy of teaching methods, an ascertaining experiment was conducted, the results of which are presented in Table 1.

Table 1. Indicators of Motor Functions, Reflecting the Coordination Abilities and Physical Qualities of Students.

| Indicators | Control group (CG) (n = 50) | Experimental group (EG) (n=50) | P |
|---|--------------------------------|--------------------------------|-------|
| CSi (integrated indicator), mm | 24,83±0,73 | 26,20±0,97 | >0,05 |
| KSo with open eyes, mm | 14,76±0,98 | 17,90±1,18 | <0,05 |
| KSz with closed eyes, mm | 33,56±1,66 | 30,69±1,85 | >0,05 |
| KSpo after standard load with open eyes, mm | 19,74±1,28 | 19,60±1,17 | >0,05 |
| KSpz after standard load with eyes closed, mm | 29,98±1,49 | 33,11±1,86 | >0,05 |
| Static coordination (SC), with (Romberg's | 84,36±0,30 | 83,74±0,35 | >0,05 |

| test) | | | |
|---|-------------|-------------|-------|
| Sensitivity of the vestibular analyzer (NDA), (Yarotsky's test) | 82,08±2,32 | 76,60±3,11 | >0,05 |
| Reflexometry, cm | 18,40±0,42 | 19,30±0,49 | >0,05 |
| Jump height from the spot, cm (according to Abalakov) | 52,38±0,87 | 52,7±1,19 | >0,05 |
| The length of the jump from the place, cm | 197,98±3,25 | 211,14±2,21 | <0,05 |

As can be seen, the parameters of spatial and static coordination, the sensitivity of the vestibular analyzer, reflexometry and jump height between students conventionally CG and EG did not differ ($P > 0.05$). (28-29)

The difference was significant only in terms of the long jump and the CSO (with open eyes) at $P < 0.05$ (Table 2). Considering the ascertaining experiment, two equivalent groups were formed: the control (CG) and the experimental (EG), the functional model and the basic pedagogical conditions for designing the experimental methodology for the formation of physical fitness and coordination abilities (COP) of students were outlined. (30-31)

The results of the main experiment (Table 2) confirmed the effectiveness of the used preparatory exercises for passing standards in the development of CS and physical qualities in physical education classes of students. (32-33)

First of all, in the EG, a significant ($P < 0.001$) improvement in the integral index was revealed, reflecting the clarity of interaction between all sensory systems and the level of inter- and intramuscular coordination of the motor apparatus. This increases the closeness of the relationship, calculated by correlation analysis. If before the start of the experiment, the dependency values were in the range: $r = 0.157-0.238$ ($p > 0.05$), then at the end they were $0.264-0.562$ ($p > 0.05 - p < 0.05$). Overall, the quality improvement was 28.0% ($p < 0.001$). (34-35)

In the same group (EG), similar indicators after the standard load significantly increased (up to 21.1%; $p < 0.001$) in contrast to the control group. After performing the standard load, the improvement of this indicator compared with the initial level was 28.3% ($P < 0.001$). The sensitivity of the vestibular analyzer before and after the experiment differed by 13.28% ($P < 0.001$). In the control group by 5.5% ($P < 0.05$), with the least development effectiveness of this quality. The speed of the motor reaction in the EG improved by 15.85% ($P < 0.001$). In the control group, no significant changes occurred ($P > 0.05$). (36-37).

Table 2. Indicators of Coordination Abilities and Physical Qualities of Students at the Final Stage of the Formative Experiment.

| Indicators | Experimental group (EG - 50 people) | | | | Control group (CG - 50 people) | | | | The difference in outcome between the EG and the CG | |
|---|--|------------------------------|-----------------------|--------|-----------------------------------|---------------------------|-----------------------|-----------|--|--------|
| | before exp. $X_1 \pm x$ | after exp. $X_2 \pm x$ | $/X_1 - X_2 / B$ % | P P | before exp. $X_1 \pm x$ | after exp. $X_2 \pm x$ | $/X_1 - X_2 / B$ % | P P | $X_2 EG$ $X_2 CG$ t | P |
| CSi (integrated), mm | 26,20± 0,97 | 18,84 ± 0,7 | 28,09 | <0,001 | 24,83±0, 73 | 24,91± 0,66 | 00, 32 | >0,0 5 | 6,16 | <0,001 |
| KSo with open eyes, mm | 17,90± 1,18 | 14,68 ± 0,85 | 17,98 | <0,001 | 14,76±0, 98 | 13,86±1, 08 | 77, 45 | <0,0 5 | 0,84 | >0,05 |
| KSz with closed eyes, mm | 30,69± 1,85 | 22,75 ±1,38 | 25,87 | <0,001 | 33,56±1, 66 | 33,02±1, 72 | 11, 60 | >0,0 5 | 4,43 | <0,001 |
| KSpo after standard load with open eyes, mm | 19,60± 1,17 | 15,46 ±0,75 | 21,12 | <0,001 | 19,74±1, 28 | 19,88±0, 85 | 00, 20 | >0,0 5 | 33,82 | <0,001 |
| KSpz after standard load with eyes closed, mm | 33,11± 1,86 | 23,73 ±1,26 | 28,32 | <0,001 | 29,98±1, 49 | 30,75±1, 71 | 22, 56 | >0,0 5 | 3,27 | <0,01 |
| Static coordination, sec | 83,74± 2,46 | 89,14 ±0,85 | 66,44 | <0,05 | 84,36±2, 09 | 83,08±2, 46 | 11, 51 | >0,0 5 | 2,3 | <0,05 |
| The sensitivity of the vestibular analyzer, sec | 76,60± 3,11 | 86,78 ±1,4 | 13,28 | <0,001 | 82,08±2, 32 | 86,60±1, 53 | 55, 50 | <0,0 5 | 0,09 | >0,05 |
| Reflexometry, cm | 19,30± 0,49 | 16,24 ±0,43 | 15,85 | <0,001 | 18,40±0, 42 | 18,54±0, 43 | 00, 76 | >0,0 5 | 3,45 | <0,01 |
| Jump height, cm | 52,7± 1,19 | 57,78 ±1,03 | 9,63 | <0,001 | 52,38±0, 87 | 52,02±0, 84 | 00, 68 | >0,0 5 | 4,29 | <0,001 |
| Jump length, cm | 211,14 ±2,21 | 219,1 0±2,0 6 | 33,77 | <0,001 | 197,98±3 ,25 | 197,6±2, 53 | 0,1 9 | >0,0 5 | 6,49 | <0,001 |

($X_1 - X_2$ in%, EG = 50 people; $X_3 - X_4$ in%, CG = 50 people)

reflexometry, cm; 9 - jump height, cm; 10 - jump length, cm. (38-39)

Legend: 1 - CSi - integrated indicator, mm; 2 - CSo - with open eyes, mm; 3 - KSz - with eyes closed, mm; 4 - KSp - after standard load with open eyes, mm; 5 - KSpz - after the standard load with eyes closed, mm; 6 - SC - statistical coordination, s; 7 - NDA - sensitivity of the vestibular analyzer, s; 8 -

The final analysis of the final results between the experimental and control groups of students on CSi revealed a high degree of development in the EG at $t = 6.16$ ($p < 0.001$). The most difficult conditions for the coordination of movements with closed eyes -

KSz and KSpz - after the standard load at t 4,43 ($p < 0,001$); t 3.82 ($p < 0,001$) and 3.27 ($p < 0,01$) confirmed a high level of improvement in the development of sensory (sensitive) and precision motor functions in students of the experimental group. (40).

4 Conclusion

In the modern practice of physical education of students, there are no scientifically based approaches to the use of preparatory exercises for passing standards for physical culture and auxiliary exercises, which are effective means of developing coordination abilities of a number of motor skills and physical fitness in general, especially in the educational process.

The data of the ascertaining experiment testify to the identity of the level of physical fitness and coordination abilities of students from the control and experimental groups. The exception is the parameters with open eyes and sensitivity of the vestibular analyzer.

The obtained results formed the basis for the development of an experimental methodology that determines the structure and content of preparatory exercises for passing the standards for physical culture in physical education of students, the development of specific coordination motor abilities.

A system of preparatory exercises for the delivery of standards for physical culture and auxiliary exercises, methods of their application, ensuring the development of physical fitness, coordination abilities and physical qualities of students in the process of learning in high school in physical education and sports.

A functional model of development and assessment of the student's coordination abilities has been created, with the help of which the targeted formation of the students' motor and functional potential and physical activity is ensured.

Coordination of movements with closed eyes - KSz and KSpz - after the standard load at t 4,43 ($p < 0,001$); t 3.82 ($p < 0,001$) and 3.27 ($p < 0,01$) confirmed a high level of improvement in the development of sensory (sensitive) and precision motor functions in students of the experimental group.

Literature:

- Aghajanian NA. Health of students. Moscow: Izd Rund.; 2014.
- Dubrovsky VI. Valeologiya. Zdorovyy obraz zhizni [Valeology. Healthy lifestyle]. Moscow: Flinta; 2014.
- Martin D. Training im Kindes und Jugendalter [Training in childhood and adolescence]. Schorndorf; 2010.
- Iseman RI. Russia's health crisis: medical, social, psychological and pedagogical principles for its formation. Novosibirsk: NGPU; 2014.
- Krüger H, Zimmerman K. Koordinative Fähigkeitenentwicklung und Technikschiulung bei jungem Sportler [Coordinative skills development and technical training for young athletes]. Theorie und Praxis der Körperkultur. 2013; 11:852-854.
- Aleshina LI. Building Motivation healthy lifestyle of the future teachers in the process of professional under-cooking [dissertation]. [Volgograd]; 2014.
- Geppert A. Imagining Outer Space: European Astroculture in the Twentieth Century. Basingstoke: Palgrave Macmillan; 2012.
- Vilensky MY, Pots AG. Physical education and healthy lifestyles of student. Moscow: Garuariki; 2014.
- Zelenin LA. Increase of balance by canoeists beginners with use of special physical exercises and the exercise machine [dissertation]. [Tchaikovsky]; 2014.
- Martin D, Carl K, Lehnertz K. Handbuch Trainingslehre [Manual training lesson]. Schorndorf: Hoffmann; 2013.
- Bondin VI. School health teacher in higher education. Theory and Practice of Physical Culture. 2014;10.
- Vaynbaum YaS. Gigiyena fizicheskogo vospitaniya [Hygiene physical education]. Moscow: Prosveshcheniye; 2014.
- Zhitnickaya EA, Berkowitz AV. Education priority attention to health as a basis for promoting the formation of healthy-lifestyle of students. Irkutsk; 2014.
- Kazin TM, Kasatkin NE. Scientific-methodical and organizational approaches to the creation of a regional program of education and health. Valeology. 2014;4.
- Bezrykhih NA. Formation of setting students on a healthy lifestyle in the educational process of professional schools [dissertation]. [Saratov]; 2014.
- Young L.R. Vestibular reactions to spaceflight: human factors. Aviat Space Environ Med. 2014;71(9):100-104.
- Vasilyeva O. Psychology of human health: standards of presentation of the students. Moscow: Academia; 2014.
- Waskiewicz Z, Juras G, Raczek J. Zbadac nad dostosowaniem motorycznym [Examine motor adaptation] Antropomotoryka. 2014;17:124-152.
- Malyarenko TN. Valeological aspects of higher education. Valeology. 2014;2.
- Starosta W, Fostiak D. Level of selected element of coordination im wrestlers during different training stages. In: Sadowki J, Starosta W, editors. Movement coordination in team sport games and material arts. Biala Podlaska; 2014:185-191.
- Salov VY. Theoretical and methodological foundations of a healthy lifestyle for students by means of Physical Education. Saint Petersburg; 2014:45.
- Apanasenko GL. Valueology: First Results and Future Prospects. The Theory and Practice of Physical Culture. 2014;6.
- Hirtz P. Struktur und Entwicklung koordinativer Leistungen vorausset Zungen bei Schulkindern [Structure and development co-ordinates performance prerequisites for schoolchildren] Theorie und Praxis der Körperkultur. 2014;7:503-510.
- Valiulina, O. A healthy lifestyle of students in the learning process by means of adaptive physical education [dissertation]. [Ufa]; 2014.
- Pozzo T, Levik Y, Berthoz A. Head and trunk movements in the frontal plane during complex dynamic equilibrium tasks in humans. Exp Brain Res. 2015;106(2):327-328.
- Ovchinnikov SA. Physical culture identity as a leading factor in the formation of a healthy lifestyle Student. Nizhny Novgorod; 2014.
- Aronson L. Conduction of labyrinthine impulses to the cortex. J Nerv Ment Dis 2013; 78:250-259.
- Weinert FE, Schneider W, Beckmann J. Fähigkeitsunterschiede, Fertigkeitstraining und Leistungsniveau [Skill differences, skill training and performance level]. In: Deugs R, Mechling H, Blischke K, Olivier N, editors. Sportmotorisches Lernen und Techniktraining. Schorndorf: Hofmann; 2013:33-52.
- Maksel R. Chapeau by Bleriot; 2012. Available from: <https://www.airspacemag.com/daily-planet/chapeau-by-bleriot-173646894/#SVzYhpV9SPBloq4E99>
- Luca A. Gymnastic in school. Iasi: Universitatea "Al. I. Guza"; 2013.
- Spigel EA. Rindenerregung (Auslösung epileptiformer Anfälle) durch Labyrinthreizung. Versuch einer Lokalisation der corticalen Labyrinthzentren. Neurol Psychial. 2012;138:178-196.
- Zhou W, Tang BF, Newlands SD, King WM. Responses of monkey vestibular-only neurons to translation and angular rotation. J Neurophysiol. 2014; 106(16):2915-2930.
- Karnath H, Dieterich M. Spatial neglect – a vestibular disorder? Brain. 2014;229:293-305.
- Blume D.D. Kennzeichnung Koordinativer Fähigkeiten und Möglichkeiten ihrer Herausbildung im Trainingsports. Wissenschaftliche Leitschrift der DH/K. 2013;3:17-41.
- Hugo V. The Memoirs of Victor Hugo. Part 5 out of 6; 1899. Available from: <http://www.fullbooks.com/The-Memoirs-of-Victor-Hugo5.html>
- Rosenbaum DA. Human Motor Control. San Diego; 2014:48-56.
- Zelenin LA. Balance improvement for the kids with Cerebral Palsy is the basis for normalization their movement without aids. Modern Problem of Science and Education. 2014;3.
- Loosch E. Ganzheitsprinzip und Variabilität in der Motorik. Psychomotorik in Forschung und Lehre [Wholeness principle

and variability in motor skills. Psychomotor in research and teaching]. Kassel; 2010.

38. Space technology used for sports; n.d. Sport Innovation Society. Available from: <http://sis.news/articulo/lorenzo/space-tehnology-used-for-sports>

39. Malina RR, Beunen GH, Claessens AL, Lefevre J, Vanden EB, Renson R, Vanreusel B, Simon G. Fatness and physical fitness of girls 7 to 17 years. *Obesity Research*. 2011;3:221-231.

40. Marlin CL. Space Race Propaganda: U.S. Coverage of the Soviet Sputniks in 1957. *Journalism Quarterly*. 1987;64(2-3):544-559.

Primary Paper Section: A

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“MANUAL CONTROL”: “AN EXAGGERATED MYTH” OR AN ESTABLISHED METHOD OF STATE AND MUNICIPAL GOVERNANCE IN MODERN RUSSIA?

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Abstract: The authors proposed their own formulation of the “manual control” concept; revealed the reasons, conditions and motives of its application by the Russian bodies of state-municipal power; and described the most common methods and mechanisms for its application. The proposed conclusions are based on the analysis of the existing practice of “manual control” exercised by the federal public authorities and public authorities of the Republic of Tatarstan in addressing the issue of providing financial support for the economic agents affected by the regional banking crisis in 2017. As a result of their research, the authors revealed the reasons and motives for application of “manual control”, identified its share in public administration and estimated the results of its application in the medium and long term.

Keywords: “Manual control,” “system management,” balance of the direct and reverse links, direct guidance, direct interaction of management structures, state and municipal management, analysis of the “manual control” practice.

1 Introduction

One cannot but agree with the statement that “classical” management theory developed by Frederick Taylor and Henri Fayol at the beginning of 20th century “falls short of present-day challenges and requires radical modernization”, since “past hundred years traced drastic changes in both management subject-matter, namely social, economic and organizational and technological processes, and management entity, i.e. a person, a group of people or an indefinite community.” (1) The given problem is particularly acute for the Russian scientific community, whose aim is not only to formulate coherent and relevant management theory but also to provide scientific support for the ongoing process of state and municipal governance in modern Russia. Whilst over the last decades Russian scholars have developed a conceptual framework, carried out rigorous research into the applied management tools, published a considerable amount of scientific articles and monographs, certain aspects of state and municipal governance process have not received due theoretical grounding, remaining among the so-called “white spots” in modern domestic science. From our perspective, the method of “manual control”, which has been successfully implemented in Russian state and municipal governance in recent years, as yet falls into the category of insufficiently studied issues. The very expression “manual control” has recently become relatively popular; it frequently appears in mass media and statements from top public officials, public figures, experts and media representatives. That said, within the scientific community there is no general agreement about the definition of “manual control” and about the approach to the given method of state and municipal governance as well as to measuring its results.

Without claiming to have provided exhaustive scientific investigation of the given problem, the authors within the limited confines of the present paper shared the results of their reflections upon the practice and legitimacy of “manual procedures” in management of state-municipal authorities of the Russian Federation together with the impact of this method on the socio-economic processes in individual regions and in Russia as a whole. (2)

2 Materials and Methods

Mechanisms and Procedures of “Manual Control.” Definition of “Manual Control”

International standards, developed on the basis of the UN methodology approved in 1996, in the most general terms distinguish four forms of government control: political, administrative, economic, and system management, each having its own subject of regulation. However, in the practical terms management process is carried out by one and the same management entities based on common rules and within the framework of standard procedures regulated by federal and regional legislation. Thereby, the administrative effect in any area of public and municipal governance has a significant impact on the whole range of social processes, population consciousness, and activities, since in practice it is impossible to separate politics from economics or, in turn, to exclude their impact on the social environment.

The question is what sphere of state and municipal governance applies method of “manual control” and “manual procedures” most widely. As mentioned above, the authors of the present paper failed to find clearly stated and, most significantly, accepted by the majority of scientific community definition of “manual control” in the scientific literature. (3) Some experts, in fact, deny the existence of the given independent management method as well as the notion of “system of manual control”, and from their perspective “manual control” is “a kind of tag – something was called manual control, but there is no theory or foundation for it. (4) Considering application of “manual procedures” in management process in correlation with management style, the aforementioned authors argue that “autocratic leadership style” combined with “Taylorism” (as a management model) in the long run led to the formation of “genuine system of manual control” in Russia, which, in turn, fully falls within one of the four “classical” management models. (4) Therein, evaluating current state of modern Russian system of state and municipal governance, these authors come to the conclusion that “if we analyze the way public authorities work, we still exist within Taylorism with a strong authoritarian leader.” (4)

However, most representatives of the scientific and expert community take a different view, and, lately, a substantial number of scholars have begun to pay greater attention to the problems of “manual control”, regarding it as an autonomous and mature method. Thus, the corresponding member of RAS, doctor of economic sciences, professor G.B. Kleyner argues that “in 2000-s there was a shift from chaotic management of the country to manual control, where each individual problem is solved by a certain management entity connected with a certain group of people.” (1)

Dictionary of Politics defines manual control as “the system of country governance where the Head of the State carries out the government of the state, as and when necessary, assisted by confidants”. The head of “Finance and Economy” division of the Institute of Contemporary Development, Nikita Maslennikov considers manual control to be an established “system of exceptions to the rule.” (5) Well-known Russian expert in management issues, Zigmund Stankevich argues that manual control is a “specific mode of government control where not only strategic but also tactical (operative) decisions towards achieving certain management goals are taken at the highest State level.” (6) Professors of the Russian Presidential Academy of National Economy and Public Administration O.I. Chepunov and A.V. Minaev define manual control as a “local “tier” to the system of state governance exercised by a control element in a forced mode in order to address certain goals depending on development trends in external and internal Russian political, legal, economic and social realities.” (7) In turn, M.A. Gromov (8), professor of Academy of Management of the Ministry of Internal Affairs of Russia, defines the concept of “manual control” as “a new autonomous mode of social management, exercised by a highest-ranking official with more significant power and discretion over other responsible officials involved in

preventing and overcoming the effects of the emergency.” Professor I. Ponkin (9) defines “manual control in state governance” as “implementation of management interrelations by a senior leader by correlating with an inferior, ignoring and bypassing a range of interim structural levels and elements of vertical system of public administration, subordinate to this leader, refusing to delegate to them certain responsibilities and/or to conduct through them management commands, by means of artificial modelling affiliation of himself with managerial positions of much lower levels.”

In our view, definitions of “manual control” presented above do not interpret it fully and do not take into account significant aspects of the practical application of this method. In this regard, the point of view of those colleagues who lay emphasis on the mechanisms of “manual procedures” application and who state that “Putin in common with Russian Empress Catherine the Great two centuries ago, does not trust institutions and governs the country with the assistance of confidants”, deserves the full attention. (10) Regarding “manual control” as a “system in which the Head of the State, as and when necessary, performs targeted governance of the country, in the first place, through certain representatives of executive bodies,” the proponents of this approach consider this principle as essential in tailoring the definition of “manual control.” (11) That said, to be fair it is necessary to mention that skeptical attitude of some statesmen to the existing institutions is shared by a certain number of scholars and experts. Notably, renowned economist D.C. North argued that “institutions are not necessarily or even usually created to be socially efficient; rather they, or at least the formal rules, are created to serve the interests of those with the bargaining power to create new rules.” (13)

Another, no less important, aspect of “manual control” application that has to be taken into account in tailoring the definition of this concept is violating the principle of subordination and shift from the procedures of system interaction between elements of the control complex to the mode of direct guidance and practice of direct messages from the superiors to the inferior elements of the controlled system (in violation of ancient formula “the vassal of my vassal is not my vassal”), when the subordinate structures are assigned tasks, neither provided for by adequate resources nor secured by adequate level of authority and beyond their competence. (2) In such event, the management entity is aware of the fact that the subordinate unit is not able to fulfill such an agenda legitimately within the bounds of law and, at times, the only way to achieve the desired objective is to use “respect of the authority”. As a rule, in such cases the subordinate unit has to convert this “authority” into either potential application of coercive measures by the state or definite economic preferences, employing procedures of ‘manual control’ which are extra-market and by no means perfect in terms of legislation. (2, 13)

One more “manual” procedure, application of which should be reflected in the definition of “manual control”, is a frequently used mechanism of ad hoc creation of scarcely legitimate management structures allowing to take and implement decisions outside the legal framework and in breach of rules and procedures established under Russian legislation. Already back in 2002, Russian management expert A. Prokhorov drew the attention of scientific community to the rising phenomenon of creation of parallel management structures, “granted far-reaching rights, on top of everything, without corresponding duties,” describing it as “unique know-how of Russian governance model.” (14) As demonstrated thereafter, on liquidation of similar and like “non-recurring and extraordinary” structures, full responsibility for their activities was transferred to “system” state executive and administrative bodies, which in turn had to, in one form or another, minimize economic and social costs, caused by the activities of their “parallel colleagues”, over extended periods. Thus, upon liquidation of Far East Directorate of Ministry of Regional Development of the Russian Federation established with the express purpose for summit APEC 2012 in Vladivostok, all expenses and responsibility for completion of construction and erection works, in fact, were imposed on the

administration of Primorye and Vladivostok Mayor’s Office. As a result, substantial financial resources to complete construction of two five-star Hyatt Hotels were allocated from the budget of the province in the next three years, and Vladivostok municipal authorities incurred expenses amounting to millions to complete the city’s road infrastructure. (14)

All of the above allow to identify “manual control” as a manifestation of crisis in state and public institutions and deformation of the existing model of Russian state and municipal governance, residing in violation of subordination and balance of statutory internal and external communications between management entities and managed objects at different levels, and observed in creation of parallel power decision-making centres; shift from system cooperation among elements of control complex to the mode of direct guidance; breakdown in the established hierarchical relations among the elements of management system; and increased practice of immediate interaction between higher-ranking and subordinate structures, allowing the management entity to take decisions on a situational basis adhering to the principle of “feasibility” and “individual discretion”, ignoring legal requirements and in breach of procedures established by law. (15)

3 Results and Discussion

“Manual Control”: an “Exaggerated Myth” or an “Objective Reality”

In order to objectively determine the role and place of “manual procedures” in Russian process of state and municipal governance, it is essential to address to the opinions of statesmen and politicians who have proven track records of applying this method in their day-to-day work. Current President of the Russian Federation V.V. Putin, who is referred to as “the chief operator of manual control” by Alekseeva (16), publicly used the expression “manual control” for the first time already back in 2007, having voiced appreciation of the results of its application in state and municipal government, therewith having claimed that “manual control” would be a guiding principle for the Russian system in the next 15-20 years before it could function in automatic mode. (17) A decade later, in December 2017, the President of the country reaffirmed application of “manual control” method, having noted that “there is manual control but it is aimed at the systematization of work locally.” (18) In turn, speaking in the State Duma in 2015, the Prime-Minister of the Russian Federation D.A. Medvedev, who also has an experience of governing the country in the capacity of the Head of the State, announced that “our whole history has always been a combination of manual control and collective leadership. In given historical periods, the one and the other appeared to work.” (10)

As can be seen from the above, both statesmen, interchangeably governing Russia since 2000 to the present day, not only acknowledged the fact of application of “manual procedures” in the governance of the state but also assessed the method itself and the results of its application in generally positive terms. From our perspective, consolidated opinion of such reputable national leaders makes the position of those who negate the existence of “manual control” method in Russian state and municipal governance in principle and the very existence of the notion of “system of manual control” rather vulnerable. The attempts to convince the society and country leaders that all mechanisms and procedures applied in state governance are, without any exception, “system” ones would seem rather strange, while in fact they have admitted and publicly demonstrated numerous instances of violation of subordination and direct appeal to lower level of public administration, exemplifying allocation of tasks, solution of which is either beyond the competence of the latter or is not provided for by adequate resources and level of authority. The compelling examples of this are direct instructions from the President of the Russian Federation to solve the problem of “deceived shareholders”, i.e. to reverse the potential threat of emergence of social tension and to regulate civil relations in which neither the

state nor the municipalities have acted as parties. That said, it is generally understood that both the legitimate mechanism for solving this task and an opportunity to use funds from consolidated state budget are virtually non-existent, since Russian authorities have never faced such problems and have never been involved in similar tasks, and therefore, regulations for this kind of legal relations have not been yet issued by the current legislation. In practice, this means that regional authorities have to find multi-million sources of extra-budgetary funds to complete the construction of “problem” houses with a subsequent donation of the built apartments to the affected shareholders. Experience has shown that various regions generally implemented one-type schemes, allowing to involve new contractors in completion of “problem” houses, offsetting their costs by certain preferences in the form of single source contracting for large public procurements or distribution of appealing lands for construction. As we understand, such decisions cannot be legally recognized as impeccable; however, they were taken by means of “manual mechanisms” and within the framework of “manual control” adhering to the principle of “the lesser of two evils”.

It must be said, Russian society appears to be divided with regard to the application of “manual control” in state and municipal government. The survey conducted in 2017 by the Foundation for the Study of Public Opinion demonstrated that 42% of Russian citizens still consider the President of the country fully responsible for the situation at the local level and only 51% of respondents place responsibility on the local authorities. It means that, despite some progress of Russia in development of institutions of the State and civil society, a significant number of people by inertia continue to align themselves with the position of unwavering support of “strong” central power and necessity of “strong-arm” able to “reach” all parts of the country and impose necessary order there. Such public interest, in our view, can be easily explained, on the one hand, by immaturity and low efficiency of the existing state institutions of regional and municipal levels and, on the other, by good performance of “manual procedures” in the process of solving certain local and pinpoint issues facing the population. Such issues are among the most associated with and understandable for the majority of Russians, and it is the solution to these problems that generates considerable public response and most explicitly demonstrates the possibility of management fault recovery in the mode of manual control,” in the meantime, creating positive attitude to this management method. (19)

However, far from all scholars have a positive view of the application of “manual control” in state and municipal governance and its results. Some experts and representatives of scientific community lay emphasis on a considerable number of adverse effects of “manual control”, expressing concern about clearly a rising trend in the application of “manual control” and broadening its scope. In our view, these particular scholars were addressed to by the President of the Russian Federation V.V. Putin who, during a live broadcast with the population on the 14th of December 2017, accentuated that “the myth about the manual control is over exaggerated” and that he, personally, regards this method as “an addition to general system work,” (18) which proves that Russian authorities place “system approach”, of all others, at the forefront of state and municipal governance.

It is rather difficult to engage in polemics with the Head of the State and generally recognized national leader, whose ideas and programs to a large extent we share. However, guided by the principle “Plato is my friend, Socrates is my friend, but the truth is worth more to me”, we would like to make a few essential comments.

Indeed, the analysis of Russian process of state and municipal governance since 2000 unequivocally demonstrates domineering of “system” procedures, the proportion of which is higher than 99%. The majority of current issues, when the algorithm is well-established within the traditional procedures and when the process of solving is fully regulated by the legislation in force,

are addressed within the framework of “system approach”. In the meantime, if an official or public authorities face a non-standard situation or the necessity to respond quickly to the unforeseen challenges and threats, the application of “manual procedures”, determined to be less 1%, is often the only way to resolve the problem.

In addition to the above, the obtained statistical data in itself and 99/1 proportion do not fully reflect the real impact of “manual” and “system” approaches on the socio-economic life of modern Russia. It must be noted that notwithstanding objective numbers, the majority of the Russian population consider the two methods equally weighted both in terms of volume and their effect on the ongoing social processes. Moreover, some part of Russian population regards that “manual control” and “manual procedures” play the leading role in state and municipal governance, are more effective due to better performance and are more widely-implemented, and thus, have a more significant impact on socio-economic relations in modern Russia than “system procedures.”

In the previous articles, we already commented on the given phenomenon with the explanation that the most significant problems and conflicts encouraging the increased public interest over the recent years were tackled by means of “manual control”, and this fact received detailed media coverage and was widely discussed not only in the professional sphere but also by the majority of the population in the country. (19, 20) One of the well-placed comments was from the philosopher Aleksandr Rubtsov, who argued that “when you start piecing all the instances when individual commissions were issued before the very eyes of the population together, control does appear by far more manual than it is viewed by political-economic analytics.” (21) Obviously, shortcomings of authorities regarding informational support for their activities and their inability to translate objective data about the prevalence of “system approach” to nation-building in comprehensible and credible forms have resulted in general public perception of a deformed model of Russian state and municipal governance skewed towards “manual procedures.”

However, it would be a mistake to underestimate the role of “manual” method in the Russian state and municipal governance as it has been actively applied in the course of the last years by officials and public and administrative authorities. In fact, widespread disruptions in the system of state governance are addressed in “manual mode” as is the case with minimization of erroneous decisions taken in the framework of “system approach” and the gaps in the existing legislation. Since the number of these disruptions and errors over the last decades has not been decreasing, “manual mechanisms” and “manual procedures” have become an inherent part of the nation-building process in modern Russia, having secured themselves an “honorable” second place in the system of state and municipal governance.

That said, the authors of the present research do not share the opinion that “the practice of “manual control” is a domain monopolized at the highest level,” recording the instances of its application both on the federal and local, including municipalities, levels on the regular basis. (21) The survey of more than 250 entrepreneurs from 5 agricultural regions of Tatarstan, carried out at the end of 2017, demonstrated that according to 71% of respondents, the method of “manual control” is actively applied by the heads of administrations of their municipal entities, and 64% of the respondents announced their “positive attitude” to the given method, noting its efficiency and the fact that without personal support of the head of the municipal entity it is rather problematic to achieve considerable results in their activities. It is the personal position of the head of an administration that forms both the investment and business climate in the given region and the extent of the support for the certain projects and persons, which henceforth become the guide for “the system” bodies of the region in the issuance of management decisions.

The Reasons and the Analysis of the Implementation of the “Manual Control”

Few are aware of what a long way has been covered by modern Russia that has completely reformed its socio-economic system in recent 25 years. The transition from state to market economy required complete removal of the previous state and social institutions and, on that basis, creation of new structures, able to operate effectively in the context of a diversified economy and strengthened social differentiation. Banking and taxation systems were rebuilt, the legislative framework was created to regulate traditional and emerging socio-economic relations, and approaches to the assessment of the role of the state and its bodies in the governance of the country were revised. And if the majority of economically developed countries gradually developed their socio-economic systems over the decades or even hundreds of years, and their “parliamentary democracy developed after their capitalist systems had strengthened and achieved a remarkable degree of legitimacy,” Russia covered this distance in two decades. (22) As a consequence, notwithstanding the fact that the Constitution of the country highlights the principles of separation of powers, equality before the law and inviolability of the private property, a considerable part of the Russian population adheres to other values, by retaining and sometimes enhancing the role of the State in all spheres of society. Hence, the aforementioned 42% of the citizens not only allow for the possibility but also call upon the Head of the State to directly intervene with courts and regional and municipal legislative and executive authorities, thus questioning, and not always groundlessly, legitimacy of decisions of the latter. It is possible to state with certainty that a significant part of the Russian population will positively respond to any actions of federal bodies (and the President of the Russian Federation in particular) which exceed their authority if they are taken in order “to restore the order locally” or “to remedy a given injustice”.

Evaluating this situation, Nobel Laureate of Economics of 1993, Douglass Cecil North in his Nobel Prize Lecture titled “Economic Performance Through Time” argued that “while the rules may be changed overnight, the informal norms usually change only gradually. Since it is the norms that provide “legitimacy” to a set of rules, revolutionary change is never as revolutionary as its supporters desire and performance will be different than anticipated.” (23)

So far, the analysis of state and municipal formation demonstrates the existence of a considerable number of “white spots” in national legal system and emergence in Russia of new types of socio-economic relations that are not yet covered by the existing legislation. Legal enforcement of ownership, change of its role in the country’s economy, and the emergence of new types of economic agents and participants in socio-economic processes required a detailed revision of the Russian judicial system. Regrettably, the work on bringing the national legislation into line with demands of modern Russian society has not yet been completed, and the accumulated experience does not yet demonstrate the formation of entrenched “market” attitude based on principles of social responsibility, rule of law and separation of powers among the majority of economic agents. Russian society, in fact, never accepted the results of privatization in 1990-s which was technically carried out within the laws in force but which had been enacted in the “absence of public consensus” (24) and had not been approved by the people owing to their incompatibility with “the prevailing norms and values.” (25)

State and municipal authorities are on a regular basis confronted with many situations when tackling the issues is impossible within the existing legislation and by means of “system” procedures, thus, application of “manual mechanisms” as yet remains the only way to settle the problems. In our earlier works, on several occasions, we reviewed the most prominent cases when “manual control” was applied by federal and regional authorities over the recent years with the aim to identify and evaluate its positive and negative aspects. Within the scope

of the present work, we aim to analyze the problem of “defrauded depositors” posed by bankruptcy of several regional banks in 2017. In doing so, it is essential to understand that under the Russian law the President of the Republic of Tatarstan and executive authority of the region do not have any powers in the sphere of banking regulations and do not have any legitimate tools available to affect banks’ policy, except where regional authorities are founders or co-founders of a banking institution.

In an effort to ease social tensions, by Presidential Decree № UP-447of 29 May 2017, in June 2017, Tatarstan government established the Republican Support Fund, directing to it a total of 760 hectares of agricultural land near Kazan in the way of assessed contribution, “in support of those affected by the banking crisis in the Republic and, at a later stage, the shareholders of “the problem” houses”. In what follows, with a view to increasing the capitalization of the granted land the Government of the Republic of Tatarstan converted it into land used for housing, independent experts had estimated it at 7 bln 210 mln 443 ths 809 rubles. Similar schemes had previously been used by officials but solely for their personal gain and on a limited scale. For the first time, the authors of the present research have been confronted with the public conversion of such large suburban section, which could substantially affect the market value of land used for housing. Furthermore, at the request of the administration of the region, Management Company “Tatenergo” and “Setevaia Compania” “voluntarily” donated 144 mln and 170 mln rubles respectively to the Support Fund through the “net profit” in 2017.

Therefore, the activities of Tatarstan regional authorities are fully within the scope of the offered definition of “manual control” and include formation of “non-system” temporary institution without the assigned responsibility (RSF) as well as the procedure of donation and further reevaluation of the land which is questionable from a legal and ethical point of view. We have evidence to suggest that it was the direct address of the President of the Republic of Tatarstan, bypassing relevant ministries and regional Parliament, to the management of two power companies that became their primary motivation to donate 314 mln rubles from their net profit in order to help persons affected by bankruptcy of regional banks and, thus, this example of use of “administrative” resource can be regarded as a “classical” instance of conversion of potential use of power towards certain economic agents to certain economic preferences.

Solving the problem of the persons affected by the regional banking crisis and being aware of certain doubts in the legitimacy of their actions, Tatarstan authorities carry out these tasks with the utmost transparency and openness to mass media to secure public support and endorsement among the majority of the population. What as yet remains unanswered is the question of legitimacy and feasibility of the use of public resources aimed to compensate for the economic agents’ losses received as a result of their transactions and contracts made without the influence and involvement of the State. Why should society bear the additional costs for mistakes and miscalculations of citizens made in the course of their business activities or when choosing a property developer? Transactions carried out, in that case, imply risks only for the parties involved in certain legal relations and taking on certain obligations and encumbrances in order to obtain profit, income, service or new property item. All the more, in the event of successful outcome of the given transactions – and there is an overwhelming majority of such – neither of the parties has shared even a small part of the obtained “bonuses” with the society, at most limiting themselves to tax liabilities and duties and trying to optimize and minimize the latter.

It also applies to the question as to the lawfulness of the decision of power companies’ management to volunteer a large portion of profit not to reconstruction and modernization of the companies but to charity. That said, both companies have already made requests to the Republic of Tatarstan Committee on Tariffs to increase electricity and electricity shipping tariffs in 2018 based

on the necessity of reconstruction and replacement for worn out core funds. Donating hundreds of millions to Republican Support Fund, management of power companies, not without reason, expects to pass these costs onto their consumers who are, in fact, all legal entities and households of the region; i.e., in the end, the initiative of the regional authorities aimed to support the persons affected by the banking crisis will be paid for by the population of the Republic due to the increased electricity tariffs. The question is to what extent these measures are legitimate and ethical. Without a legal grounding to directly use budgetary funds for assisting shareholders and investors, the authorities of the region applied the scheme when, in the initial phase, a considerable proportion of profit was “on a voluntary basis” withdrawn from the controlled entities and later, acting already within their competence in the process of tariffs regulation, they included these costs into electricity tariffs. It is difficult to see how the regional parliament would approve and the society would endorse allocation of multi-billion budgetary funds for assistance to “problem shareholders” and “deceived depositors”, while implementation of the given “manual” scheme has allowed the regional authorities to solve this problem at least in part and to decrease the socio-economic tension caused by regional banking crisis immediately before the presidential elections in March 2018. However, the fact that notwithstanding considerable financial resources, Republican Support Fund paid only 17 mln rubles to 120 entities over the period from 08.06.2017 to 01.01.2018 is rather disturbing. (26)

4 Conclusion

The method of “manual control” alongside with “system approach” is commonly used by Russian government authorities at all levels, recently it has become an integral part of a unified system of state and municipal government and, hence, cannot be classified as a “myth”. It is rather an objective and regular approach that is used to tackle the most acute and socially significant problems arising in Russian society, which, owing to its publicity and resonant character, has gained unreasonable prominence in Russian information space and has anchored in the consciousness of the majority of population as the most effective and common way of addressing the failures in the system of state and municipal governance.

Against a background of undeniable domination of “system” procedures in the managerial process, management entities, as a rule, implement “manual” mechanisms only in cases when there is no real opportunity to solve the problem quickly and effectively based on current legislation and within the framework of “system approach”. In this case, the management entity, often violating the principle of subordination and the existing hierarchy and addressing the “lower” levels of public governance in the mode of direct guidance, exposes them to the tasks beyond their competence and without providing them with necessary powers and resources.

From our perspective, major reasons for application of “manual control” are imperfection and inconsistency of current Russian legislation that has not fully taken into account fundamental socio-economic changes over the recent decades and, hence, is incapable to adequately address both newly emerged and previously existing relations with account of transformed approaches, priorities and system of social values.

Indisputable advantages of the “manual procedures” are their short-term effectiveness and the rapid managerial effect that is attained due to the elimination of “extra” links of a management chain along with certain functions and procedures, among which are control and evaluation of potential implications by the expert community. Considering the shortcomings of the “manual control”, it is essential to take into account mid-term and long-term negative effects of arbitrary managerial decisions and high costs of the intended results. Moreover, despite better efficiency of “manual procedures” and their positive impact at an early stage, further (in mid-term and long-term) their effect is offset by recognizing actual costs and comparing them with the results achieved and by reputational issues, such as slowdown in

investment and economic activity, deterioration of business climate, etc.).

Literature:

1. Kleyner GB. *Institutional economy and modern management*. GUU publishing house; 2016.
2. Shlychkov VV, Khasanova AS, Vedin NV. A Quarter Century of Reform of the Russian Economy: Is it Wandering in a Maze or Jogging in Place? *Indian Journal of Science and Technology*. 2016; 8(10). DOI: 10.17485/ijst/2015/v8i10/84883.
3. Shlychkov VV, Kiyamov IK, Kulish SM, Nestulaeva DR, Alafuzov IG. On some aspects of implementing the “manual control” by the bodies of the Russian state-municipal power. *Actual Problems of Economics and Law*. 2016; 10(390):39-54.
4. Alexandrov D, Shumilov S. [Internet]. "Ruchnoye upravleniye" — kak Vy ponimayete etot termin? ["Manual control" – how do you understand this term?]. *Upravleniye Personalom* magazine; 2013. Available from: <http://www.ipnou.ru/article.php?idarticle=012195>
5. Polunin A. [Internet]. Gref nameren nachat Perestroyku 2.0. Pomozhnet li reforma gosupravleniya podnyat ekonomiku RF? [Gref intends to begin Perestroika 2.0. Will the reform of public administration help grow the economy of the Russian Federation?]. *Free Press*; 2016. Available from: <http://svpres.sa.ru/economy/article/144471/>
6. Golik YV. [Internet]. Mokhnataya ruka rynka i sistema prinyatiya resheniy [Shaggy hand of the market and decision-making system]. *Nezavisimaya Gazeta*; 2016. Available from: http://www.ng.ru/ng_politics/2016-01-19/15_ruka.html
7. Chepunov OI, Minayev AV. Control (supervising) function as element of efficiency of the public power. *Queens. Right and state: theory and practice*. 2015; 9(129):36-42.
8. Gromov MA. “Manual control” in special conditions: a concept, the characterizing signs. *Works of Departments of MIA Academy of Russia*. 2014; 2(30):36-38.
9. Ponkin IV. Manual control mode. *Public service*. 2016; 4:45-48.
10. Rjabov, A. Das Scheitern der demokratischen Transformation Russlands: war es unausweichlich? [The failure of the democratic transformation of Russia: was it inevitable?]. *Trendbericht Russland: Bilanz des letzten Jahrzehnts (1998-2008) und Perspektiven: ein Sammelband*; 2010: 248-271 p.
11. Lenta.ru [Internet]. [Medvedev told about pros of "manual control" of Russia]; 2016. Available from: https://lenta.ru/news/2016/04/19/manual_control/
12. North DC. [Internet]. Economic Performance through Time. Lecture to the memory of Alfred Nobel; 1993. Available from: <http://nobelprize.org/economics/laureates/1993/north-lecture.html>
13. Bataykin PA, Khasanova AS, Shlychkov VV, Toumashev AR, Toumasheva MV. Economic Growth in the Conditions of Resource Constraints: Ordinal Approach to Optimization of Macroeconomic Production Structure. *Journal of Applied Economic Sciences*. 2016; 3(41):521-531.
14. Prokhorov AP. *Russian model of management*. Publishing house of the Studio of Artemy Lebedev; 2014.
15. Avchenko V. [Internet]. Full APEC. Expert Online; 2013. Available from: <http://expert.ru/2013/09/9/polnyij-ates/>
16. Alekseeva D. [Internet]. Ruchnoye upravleniye [Manual control]. REGNUM; 2017. Available from: regnum.ru/news/2331248.html
17. Shlychkov VV. “Manual Control” as a Manifestation of Institutional Crisis and Deformation of the Existing Model of Russian Economy. *The Review of Economy, the Law and Sociology*. 2015; 4:144-149.
18. Putin VV. [Internet]. Manual control of the state - the myth; 2017. Available from: www.pravda.ru/news/politics/14-12-2017/1360810-pressconf-0/more
19. Shlychkov VV. And Again about "Manual Control" or Effectiveness Due to Efficiency. *The Review of Economy, the Law and Sociology*. 2017; 3:52-58.
20. Shlychkov VV, Khasanova AS, Kiyamov IK, Kulish SM., Nestulaeva, D.R. Hands-on management: theoretical and methodological approaches and Russian practice of state and

municipal management. *European Research Studies Journal*. 2017; 20(2):200-223.

21. Rubtsov, A. [Internet]. Kak priruchit stranu [How to tame the country]. *Vedomosti*; 2017. Available from: www.vedomosti.ru/opinion/articles/2017/09/18/734182-kak-priruchit-stranu

22. Kotz DM, Weir F. *Russia's Path from Gorbachev to Putin. The Demise of the Soviet System and the New Russia*. London, New York: Routledge; 2007.

23. North DC. Economic performance through time. *The American economic review*. 1994; 84(3):359-368.

24. Grigoriev RA, Kramin MV, Kramin TV, Timiryasova AV. Inequality of distribution of income and economic growth in regions of Russia during the post-crisis period. *Economy of the region*. 2015; 3(43):102-113.

25. Tumashev AR, Tumasheva MV. Social and economic development of Russia and problem of investment policy. *Economic bulletin of the Republic of Tatarstan*. 2014; 4:12-22.

26. Timofeev RA, Kulish SM. Formation of complex potential of regional economic system. *Scientific review*. 2011; 3:3-11.

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EXPERIENCE IN IMPLEMENTING THE METHODOLOGY OF CONTENT AND LANGUAGE INTEGRATED LEARNING IN THE TRAINING AND RETRAINING CENTER FOR CLIL TEACHERS

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Abstract: At present, institutions of higher education have a number of problems in implementing content and language integrated learning such as the lack of human resources and of the necessary level of proficiency in a foreign language among subject teachers, as well as the lack of methodological advanced training courses for teachers implementing content and language integrated learning. Teaching staffs of each institution of higher education face a number of problems that require finding effective ways to overcome the existing risks of implementing content and language integrated learning. It is obvious that the time has come for a theoretical conceptualization of this experience and the creation of a common unified model of content and language integrated learning. This will eliminate the language barrier, improve the level of English proficiency, as well as organize methodological advanced training courses for teachers implementing content and language integrated learning.

Keywords: content and language integrated learning, content and language integrated learning technology, Training and retraining center for content and language integrated learning teachers, professional and language competencies of content and language integrated learning teachers.

1 Introduction

Content and language integrated learning (CLIL), which was considered promising in most schools in Europe, Canada, and the United States in the 60-70s of the twentieth century, is now becoming a necessity in Kazakhstan. Marsh (1), the founder of this methodology, defines content and language integrated learning as "situations in which a course or parts of a course are taught via a foreign language with two oriented goals, i.e. learning the content of a course and learning a foreign language."

The purpose of the article is to discuss the experience of the Training and retraining center for CLIL teachers in the implementation of training courses based on the CLIL approach.

At present, peculiarities of the development of institutions of higher education include their integration into the international educational process, the creation of a common higher education space based on educational programs that meet the requirements of the Council of Europe, as well as the requirements for the professional competence of young professionals within the internationalization of higher education. Today it is difficult to imagine a modern young specialist who, to some extent, do not have the skills of professional communication in a foreign language.

The term CLIL (Content and Language Integrated Learning) was first proposed by David Marsh (2) in 1994. This method is one of the effective approaches to teaching subjects to students in a foreign language in Europe. It is based on the idea of integrating content and language learning in higher education and is recommended by the European Commission since it provides students with the opportunity to study a subject and a foreign language at the same time.

This technique has been implemented in Europe for about 20 years, but, in Kazakhstan, it is only beginning to gain popularity.

Nevertheless, the implementation of CLIL in Kazakhstan is sporadic and, if carried out, is partial in the framework of individual educational organizations. (3)

In the article, the authors tried to analyze the state of development of this problem in various educational institutions of the Republic of Kazakhstan.

In Kazakhstan, training in three languages is being implemented at three experimental areas, i.e. 33 schools of the network of the Republican Scientific and Practical Center "Daryn", 20 Nazarbayev Intellectual Schools and 42 institutions of higher education provide training in three languages. 17 institutions of higher education train educational personnel to teach biology, chemistry, physics and computer science in English. (3) Buketov State University of Karaganda developed the concept of the development of multilingual education in the Republic of Kazakhstan. Kazakh Ablai Khan University of International Relations and World Languages developed the concept for the development of language education in the Republic of Kazakhstan. The state obligatory education standard of the Republic of Kazakhstan for higher education implies the Trinity of languages (Kazakh, Russian and foreign languages). The Higher School of Education has developed strategic orientations for reforming the education of the Republic of Kazakhstan for 2015-2020. (4)

Kazakh institution of higher education, including the Abai Kazakh National Pedagogical University (hereinafter KazNPU) are at the initial stage of transition to content and language integrated learning. There are significant problems in the implementation of the Roadmap for the development of trilingual education in the KazNPU until 2020. These problems include a shortage of staff who know the basics of content and language integrated learning and an insufficient level of English language skills among students. When analyzing the foreign advanced experience of subject teachers, as well as the lack of domestic science-based methodology for the implementation of CLIL in the educational process, the need to create a single center for training and retraining CLIL teachers has been revealed.

Below, the prerequisites for the creation of the Center will be considered, as well as a review and analysis of the world experience of the existing CLIL training centers will be presented. An analysis of the achievements of the Center using the example of the KazNPU will be presented, and problems that require continued research to improve personnel training in CLIL.

1.1 Review of the world experience in training in CLIL

In order to study the experience of Charles University in the Czech Republic, the project participants visited this educational institution. The authors were offered a program of training future teachers of mathematics, developed jointly by the departments of mathematics and English. This program includes the CLIL course. The so-called scaffolding designed to create a favorable atmosphere during the class plays an important role in the implementation of CLIL.

The Autonomous University of Barcelona developed a practice-oriented model of training future teachers. The goal of the model proposed by David Kolb is to alternate the cycles of practice and reflection carried out in five stages. (5)

This model has proven its effectiveness and has been implemented in a number of other universities in Spain and Europe when training future CLIL teachers. The learning is realized via the students' own specific experience that is a material for observation and reflection. New knowledge and hypotheses obtained are tested at the last stage during active

experimentation, the result of which is the acquisition of specific experience. (6)

According to the Kazakh scientist A.S. Dontsov (6), future teachers are trained in Europe to teach by using a non-native language. At the same time, one can come to a rather paradoxical conclusion: despite the widespread use of the CLIL methodology in secondary schools, at the level of higher pedagogical education there is no a single pan-European training program for teachers. Even at the country level, such training is carried out mostly separately and varies from the inclusion of relevant disciplines in the curriculum (or even the inclusion of certain topics dedicated to CLIL in the content of other disciplines) to of additional language specialization for future teachers of non-language subjects. (6)

The problems mentioned by the authors lead to the conclusion that in the process of teaching a subject in a foreign language, CLIL teachers need some theoretical training (the theory of social constructivism and the levels-of-processing theory). The theory of social constructivism implies an orientation toward the student, his/her active participation in the learning process and, above all, the joint construction of new knowledge and not its ready-made acquisition. According to the levels-of-processing theory, memorization depends on how important the learner considers the learning material and how deeply and complexly he/she processes the learning material in a foreign language. (7) The authors, after having analyzed the effectiveness of advanced training courses in Europe, points out the following main obstacles to the effectiveness of course functioning:

1. Insufficient foreign language skills of CLIL teachers.
2. There is a lack of CLIL theoretical and methodological training on the advanced courses in question.
3. The low learning outcomes when using CLIL are caused by the difficulty of students' perception of the authentic material in a non-native language. (6)

Thus, the international experience in training CLIL teachers shows the lack of a unified system of training CLIL teachers on the advanced courses. This phenomenon is also observed in Kazakhstan. When taking into account the foreign and Kazakh experience in training CLIL teachers, the authors consider it urgent to create a single Center providing comprehensive (linguistic and methodical) staff training.

1.2 Implementation of CLIL in the KazNPU

The need to create a theoretical and methodological framework in order to determine effective ways to solve staffing issues is due to the creation of the Training and retraining center for subject teachers in the KazNPU. The aforementioned Center organizes training and retraining of teachers in English regarding the theoretical and methodological aspects of CLIL. The scientific novelty of the proposed solutions consists in the comprehensive identification of the patterns of teachers' training and retraining. These solutions enable improving the quality of language and content teaching using CLIL technology in the KazNPU.

The pedagogical staff of the university faced a number of problems requiring the search for effective ways to overcome the existing problems of implementing CLIL. Today, in Kazakhstan, there are individual courses for secondary and higher education teachers under the Orleu teacher training institutes and Nazarbayev Intellectual School, as well as individual courses under the Ministry of Education and Science of the Republic of Kazakhstan dedicated to teaching foreign language and discipline content. The creation of the Center has stemmed from the existing problems that impede the effective implementation of CLIL. These problems include the lack of personnel familiar with the CLIL methodology and an insufficient level of knowledge of the English language. The main idea of the Center is the possibility of providing CLIL teachers with educational and methodological services.

1.3 Prerequisites for the creation of the Center

The insufficient degree of theoretical development and the use of modern educational technologies aimed at improving CLIL determined the relevance of the creation of the Center within the project. The center is created and operates in order to solve the problems of training and retraining CLIL teachers in the KazNPU and then disseminate this experience throughout the Republic of Kazakhstan.

As a result of the analysis conducted by the Information and Analytical Center by order of the Ministry of Education and Science of the Republic of Kazakhstan, the teachers who participated in the study point out a number of problems impeding the effective implementation of the teaching in three languages, especially in English:

- lack of a single instructional and methodical document,
- psychological barrier due to the low level of language and methodical training of teachers,
- 31% of teachers have a low level of English (A1-A2). (7)

Well-known methodologists argue that the teaching staffing will lead to the active implementation of the CLIL methodology via its integration in various types of educational systems. (8) In Kazakhstan, new effective ways to train teachers need to be found. The development of the national model of CLIL methodology via the creation of the Training and retraining center for CLIL teachers is of particular interest. The staffing with highly qualified teachers will lead to solving the problems of training CLIL teachers. The baseline data for the creation of the Center were the results of an analysis of the experience in implementing the CLIL methodology, as well as the results of research by leading scientists from Europe, America, Russia, and Kazakhstan. For the successful solution of tasks for training CLIL teachers, it is necessary to develop one's own model of a training center for CLIL teachers. This model will focus on language and methodological training with an extensive range of theoretical and methodological issues. The solution of existing problems in institutions of higher education related to the CLIL methodology depends on the professional training level of teachers. In this connection, the relevance of training and retraining of CLIL teachers is increasing.

1.4 Activities of the Center

The main activities of the Center are language and methodical training of CLIL teachers already working in the university. Their training is implemented in three stages: language training (stage I-II), and CLIL teaching method (stage III). The problem of language training and retraining of CLIL teachers in the context of a multilingual education is of particular relevance. Since CLIL implies teaching the content of a discipline in the target language, subject teachers must be not only competent experts in their disciplines but also in a foreign language.

1.5 Language course for training CLIL teachers

Language training is aimed at achieving relevant language levels (A2, B1, and B2) according to the CEFR (Common European Framework of Reference for Languages). The Center has developed a language course program to improve the language level of subject teachers in the KazNPU. The compilation of materials related to an academic discipline was made with taking into account the mandatory level of complexity that is slightly below the current level of students' knowledge. The texts were carefully selected and have a sufficient number of tasks for understanding and mastering the material. Text processing tasks were constructed with an emphasis on academic content in order to involve students in the process of understanding, testing, and discussing the main thought of the text. The tasks show the characteristics of the discipline metalanguage for skills development when using them in various types of speech activity. For effective management and organization of the educational process, active and interactive methods of teaching foreign languages were used.

The course participants were tested in order to determine the level of proficiency in English. The testing was conducted at the Center, with a summary in the form of a number of points. According to testing data, subject teachers could score 40 points maximally.

The task of the program is to teach the requirements for communicative skills in all types of speech activity to students. These requirements are formed on the basis of the academic content of a particular level and the relevant language material.

The language material of the program is characterized by normative correctness and includes the most commonly used phonetic, lexical and grammatical phenomena designed to ensure practical mastering of the basics of oral and written communication within the topics studied on the course in accordance with the scope and situations of communication provided for the A2, B1, and B2 levels.

2 Materials and Methods

The methodological basis of the experimental work was the concept of professional retraining of already working CLIL teachers. The study used such methods as comparative analysis, synthesis, and interviews.

In order to achieve functional literacy in foreign language fluency and the development of communicative skills in four types of speech activity in the field of speaking, course participants were provided with situations for the presentation of prepared and unprepared dialogue and monologue speeches. The participants showed the ability to implement communicative intentions and respond to the partner's statements in accordance with the functional varieties of a dialogue (dialogue-exchange of information, exchange of opinions etc.), as well as the ability to realize communicative intentions in the form of a description (of a place of residence, family, future profession etc.) or of a micro-narrative (about events, dreams, hope etc.) in accordance with the specified speech topics and communication area.

The learning to listen was carried out with the help of authentic audio and video texts of a monological or dialogical nature on the basis of the studied speech topics, the area of communication and language material.

The learning to read was carried out on the basis of simple multi-genre authentic texts of a small volume built on language material and speech topics. This training material contributed to

the development of reading skills applied for foreign language text.

In the field of writing, students worked on the development of skills necessary to create their own texts in a foreign language.

3 Results and Discussion

The integrity of the creation of the Advanced Training Center for the CLIL teachers working in the KazNPU was formulated and substantiated. A brief analysis of the state of development of this problem in various educational institutions of the Republic of Kazakhstan is presented. A review and analysis of the world experience of the CLIL Training Centers are described. The problems that require continued research in order to improve CLIL training are highlighted. Conclusions about the need to develop a unified model of the Training center for CLIL teachers were made.

3.1 Practical significance

The results of the research will make a significant contribution to the holistic system of training and retraining of teachers engaged in CLIL. The continued study of the problem of the creation of the Center can be used as the basis for developing one's own model of training and retraining of CLIL teachers and further dissemination of this experience throughout the Republic of Kazakhstan to solve the task of transition to CLIL successfully.

3.2 Analysis of students' English language competencies development outcomes in the Center

After the completion of the language course in the KazNPU Center, subject teachers' English language skills were tested. Test tasks consisting of 2 parts (written and oral ones) were developed. Each part includes tasks for four types of speech activity: Listening, Reading and Use of English, Writing, and Speaking.

The written part of the testing includes tasks for determining the level of development of skills in perception and understanding of a foreign language text, as well as creating one's own written text in a foreign language. The oral part of the test includes dialogical and monological speeches on studied topics and according to the areas of communication in order to determine the oral communication skills development in a foreign language.

Table 1. The main indicators of students' English language skills development in the Center

| Learning period | Number of students | Outcome | Number of students | % of total |
|-----------------------|--------------------|--------------|--------------------|------------|
| September and October | 30 | Excellent | 10 | 30 |
| | | Good | 15 | 45 |
| | | Satisfactory | 5 | 15 |
| October and November | 30 | Excellent | 12 | 36 |
| | | Good | 15 | 45 |
| | | Satisfactory | 3 | 19 |

The analysis of the overall results shows that the average percentage of completed testing tasks is 45%. It can be stated that the students managed to overcome the main difficulty in performing tasks.

An analysis of the test results was showed that when selecting texts for reading and listening, as well as the lexical minimum and grammatical structures for teaching a subject in a foreign language, it is necessary to take into account the specifics of the educational material in accordance with the subject being taught.

3.3 Methodical course for training CLIL specialists

According to the methodologist D. Coyle, CLIL is an approach to the learning aimed at achieving a two-pronged goal, in which

the second language is used as a means of teaching the subject and at the same time is an object of study. (9) The scientist David Marsh believes that the basic principles of the CLIL method include two main concepts such as "language" and "integration." CLIL is conducted on the basis of the main 4 "C": content, communication, cognition, and culture. (10)

Three CLIL models are known: soft CLIL, the so-called language-led one (when the emphasis is placed on the linguistic features of the special context), and hard CLIL, i.e. the so-called subject-led one (when almost 50% of the curriculum's specialization disciplines are studied in a foreign language). The third model is an intermediate one and is used when some

modular specialization programs are studied in a foreign language (partial immersion). (11)

This technique is of great interest among teachers who teach specialization disciplines in a foreign language. Therefore, subject teachers should be able to teach not only the core subject in a foreign language but also use important means of teaching the language, i.e. to teach grammar, vocabulary, etc.

CLIL teachers have to meet certain requirements: to use interactive innovative forms and methods for presenting educational material and organizing educational activities, to be in the constant creative search, and to acquire professional competence in the field of CLIL technology.

According to scientists, it is necessary to plan and organize each lesson in view of the principles of 4 C (Content, Communication, Cognition, and Culture). (12)

- 1) subject content (mastering new knowledge based on the previous one when taking into account the existing experience of students);
- 2) communication skills (interactivity and interaction, progress in learning and using a language);
- 3) cognitive skills (planning, discussion, evaluation of the practice of learning, use of language for the analysis of gained knowledge and planning the continuing education);
- 4) culture (support of the native language and culture, identity, respect for other cultures and multicultural education).

Each lesson should have clearly defined goals, learning outcomes, assessment methods, and criteria, as well as reflection. Teachers should regularly conduct the analysis of their classes on the basis of a CLIL method checklist. (13) It is necessary to develop and select high-quality materials, visual aids and authentic texts for CLIL.

The teaching of biology, chemistry, physics, mathematics and computer science at the university in English needs a reasonable application of the relevant methods of CLIL technology. All the above imposes new professional duties on subject teachers.

This means that a subject teacher must teach not only their subjects but also the language in CLIL classes. This approach to CLIL implies a teacher's good knowledge not only in his/her subject but also in the method of teaching the subject in a foreign language.

The development of the methodological course curriculum for the Center was grounded on the need to find effective ways to create new strategies for training CLIL teachers. The problem of training subject teachers according to the CLIL methodology requires increased attention to the training of professional staff implementing CLIL training.

In order to analyze the methodological course outcomes, an interview was conducted with the course participants. This interview was organized with the aim to create a methodical course curriculum to reveal methodological difficulties for CLIL teachers. 15 subject teachers participated in the interview. The following difficulties were revealed as typical methodological difficulties for CLIL teachers:

1. Those related to the planning of a CLIL lesson;
2. Those emerging when working on various types of speech activities including when working on a text. The learning of a professional language means using a foreign language not only as a means of communication but also as a learning tool. Therefore, for students participating in the CLIL process, there is a double problem: they must learn a foreign language and also acquire knowledge in that language. The knowledge mastering at school and institution of higher education is primarily based on texts. Texts are the basis of learning. This refers to the source texts in the field of history, to assignments in textual form

in mathematics; descriptions, explanations, and instructions in geography, biology or physics. In order to succeed in school with the integrated learning of individual subjects in a foreign language, students must have text skills that are considered to be key learning skills in modern methodology.

3. Those emerging when using interactive technology in teaching a subject in a foreign language;
4. Those emerging when forming and developing competencies related to the understanding of the functioning of the CLIL technology.

Taking into account all the above factors, a course curriculum has been developed at the Training and retraining center for CLIL teachers. The curriculum is called "Methodical foundations of the formation of CLIL technology." The goal of the course is to organize discipline-based language activities in the process of integrated learning. The learning is conducted in the form of training. The content of the training includes

- 1) familiarization with the basic principles and concepts of the CLIL methodology;
- 2) the learning of the basics of creating learning materials in accordance with the CLIL principles;
- 3) study and analysis of the best European practice in lesson planning that meets the CLIL principles and the evaluation of learning outcomes. (14)

As a result of mastering the curriculum, the following competences should be formed among the students:

1. Professional one (the ability to apply modern methods and technologies for organizing educational activities, diagnosing and evaluating the quality of the educational process according to CLIL and other educational programs). When forming the professional competence of a foreign language teacher, a special "linguistic personality" is formed in contrast with an ordinary teacher. These differences are manifested in various aspects of verbal communication: in language, during the creation of texts of various kinds, during personal communication with partners, and during the professional handling of various texts. Therefore, the professional competence of a foreign language teacher is a complex phenomenon consisting of several components: language competence in the native language, language competence in a foreign language, culturological competence, pragmatic competence, search competence, textual competence, and discipline-based competence.
2. Discipline-based one (the ability to form an educational environment and use professional knowledge and skills in the discipline, the ability to form the level of orientation in modern research, the ability to choose or develop the technology and methodology necessary for a particular educational process).

4 Conclusion

Today, CLIL is becoming very popular not only in Europe but also in Kazakhstan. High-quality implementation of this technology depends on the professional training of CLIL teachers. It should be noted that the analysis of world experience in the use of CLIL technology, as well as the implementation of this technology in the context of Kazakhstan, shows the presence of certain difficulties in the training of already working CLIL teachers. These problems include the subject teachers' lack of proficiency in a foreign language, as well as the lack of their knowledge in the methodology of teaching a subject in a foreign language.

One of the ways to solve these problems is the creation of the advanced courses center for CLIL teachers in the KazNPU that includes language courses and methodological training of subject teachers already working in the university. The positive side of the Training and retraining center for subject teachers is their comprehensive training using the CLIL technology.

The language course provides for the gradual study of a foreign language and enables eliminating the language barrier, as well as improving the level of proficiency in English among teachers to teach their subjects in a foreign language.

The methodical course aims to:

1. forming and developing competencies related to the understanding of the functioning of the CLIL technology;
2. familiarizing with the theoretical and methodological aspects of CLIL;
3. training in methods of planning and organization of discipline-based language activities in the process of integrated learning.

In the future, the activities of the Center will contribute to the dissemination of advanced training experience of CLIL teachers across the Republic of Kazakhstan.

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Literature:

1. Marsh D. *Content and Language Integrated Learning: The European Dimension. Actions, Trends and Foresight Potential*. OUP; 2002.
2. Marsh D. *Using Languages to Learn and Learning to Use Languages: An introduction for parents and young people*. Milan: TIE-CLIL; 2001.
3. Zhetpisbayeva BA, Kubeyeva AY, Mazachova N. Rasshireniye professionalnykh funktsiy pedagogov pri integrirovannom obuchenii predmetu i yazyku [Expansion of professional functions of teachers with CLIL]. Vestnik Karagandinskogo universitetata. Seriya Pedagogika. 2016; 4(84):8–15.
4. Information-Analytical Center of the Ministry of Education and Science of Kazakhstan [Internet]. Presentation of the results of the study of the readiness of schools and universities of the Republic of Kazakhstan to the phased implementation of training in three languages [Prezentatsiya rezultataov issledovaniya gotovnosti shkol i vuzov Respubliki Kazakhstan k poetapnoy realizatsii obucheniya na trekh yazykakh]; 2016. Available from: <http://iac.kz/>
5. Kolb D. *Experiential education: Experience as the source of learning and development*. Englewood Cliffs, N.J.: Prentice-Hall; 1984.
6. Dontsov AS. Mezhdunarodnyy opyt podgotovki pedagogov k realizatsii metodiki predmetno-yazykovogo integrirovannogo obucheniya [International experience in training teachers to implement the CLIL methodology]. Vestnik Karagandinskogo universitetata. Seriya Pedagogika. 2017; 3:108-117.
7. Cermak L, Craik F. *Levels of Processing in Human Memory*. Hillsdale, NJ: Erlbaum; 1979.
8. Khamitova GA. *Poliyazychnoye obrazovaniye: sovremennoye sostoyaniye i perspektivy razvitiya* [Multilingual education: current state and development prospects]. Pavlodar; 2013.
9. Coyle D, Hood P, Marsh D. *CLIL. Content and Language Integrated Learning*. CUP; 2012.
10. Cummins J. *BICS and CALP: Empirical and Theoretical Status of the Distinction*; 2008.
11. Coyle D. Theory and planning for effective classrooms: supporting students in content and language integrated learning contexts. In Masih J. (ed.), *Learning through a Foreign Language* (pp. 46-62). London: CILT; 1999.
12. Coyle D, Hood P, Marsh D. *CLIL. Content and Language Integrated Learning*. Cambridge: Cambridge University Press; 2010.
13. Maljers A, Marsh D, Coyle D, Hartiala AK, Marsland B, Pérez-Vidal C, Wolff D [Internet]. The CLIL Compendium; 2002. Available from: <http://www.clilcompendium.com>

14. Crean F. CLIL Training Workshop: Programme. Narva; 2011.
15. Ayapova TT, Aydarkhanova AA, Degtyareva KS. Samyye sovremennyye tekhnologii v prepodavanii yestestvennykh nauk [The most advanced technologies in the teaching of natural sciences]. Vestnik KazNPU imeni Abaya. Seriya Pedagogicheskiye nauki. 2018; 3(59):121-126.
16. Abdrakhimova G. Textkompetenz als wichtiger Bestandteil der beruflichen Kompetenz des CLIL-Lehrers [Textual competence as an important part of the professional competence of the CLIL teacher]. Vestnik KazNPU imeni Abaya. Seriya Pedagogicheskiye nauki. 2018; 3(59):112-117.
17. Shayakhmetova DB. Scientific and methodological background in introduction of content and language integrate learning in educational process. Vestnik KazNPU imeni Abaya. Seriya Pedagogicheskiye nauki. 2018.-№3(59). – C.23-30.
18. Bukabayeva BE, Kemelbekova ZA. Köptildi bilim berw jağdayında CLILdi eñgizwdiñ özektiligi [Relevance of implementation of CLIL in multilingual education]. Vestnik KazNPU imeni Abaya. Seriya Pedagogicheskiye nauki. 2018; 3(59):98-106.
19. Kemelbekova ZA, Bukabayeva BE, Khamzina A. Analiz tipov interaktsiy v CLIL klasse [Analysis of types of interactions in the CLIL class]. Vestnik KazNPU imeni Abaya. Seriya Pedagogicheskiye nauki. 2018; 3(59):130-138.
20. Kartabayeva AA. CLIL as a means of forming discursive component of intercultural communicative competence. Vestnik KazNPU imeni Abaya. Seriya Pedagogicheskiye nauki. 2018; 3(59):106-112.

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STRATEGIC DIRECTION TO SUPPORT PUBLIC-PRIVATE PARTNERSHIPS IN THE INNOVATION SECTOR OF KAZAKHSTAN: PROBLEMS AND PROSPECTS

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Abstract: This article discusses the main strategic directions of support for public-private partnership in the innovation sector of Kazakhstan. The paper presents a classification of forms and models of public-private partnerships, as well as a scheme for the integration of the interaction of the state, business, and science. Based on the development trend of the innovative activity of enterprises, a forecast was made for the development of innovative activity of enterprises in Kazakhstan until 2021. Considering that the key task of the state is to help increase the susceptibility of businesses to innovations and to select the priorities of innovation activities in the strategies of companies, a number of comprehensive measures have been proposed to solve this problem. Also, the main problems and obstacles in the development of public-private partnership in innovation activities are given, including the main directions for the formation of a public-private partnership in the innovation.

Keywords: public-private partnership, innovative activity, forecast of innovative activity of enterprises, Kazakhstan.

1 Introduction

Public-private partnership (PPP) as one of the instruments for attracting investments in the public sector of the economy began development from the first years of independence of the Republic of Kazakhstan from 1991 with the adoption of the Law of the Republic of Kazakhstan "On Concessions" (1) until it became invalid in 1993. It regulated the organizational, economic and legal conditions for granting concessions, in the form of property, land and natural resources, only to foreign investors in the territory of the Republic of Kazakhstan. After the loss of force of the "old" law and until the adoption of the current Law "On Concessions" (2) of July 7, 2006, the general norms of the civil code of the Republic of Kazakhstan, the Law on JSC, Law on privatization, etc. served as the legal basis for PPP projects. The new Law "On Concessions" allowed the transfer of rights to create objects of state ownership not only to foreign but also to legal entities - residents of the Republic of Kazakhstan.

Kazakhstan today is characterized as one of the most dynamically developing states of the CIS. A strategic turn in the direction of new industrial-innovative development was made back in 2000 when President of Kazakhstan N.A. Nazarbayev emphasized that the strategy of sustainable development in the new century will be linked to the achievements of domestic science, the transition to the production of high-tech and competitive products based on resource-saving and environmentally friendly technologies. (3)

On October 31, 2015, a new Law of the Republic of Kazakhstan "On Public-Private Partnership" was adopted, which prescribed that PPP in Kazakhstan can be structured not only as a concession and be used to implement projects under the "Law on PPP" in any sector of the economy. But education, health, transport, electricity and housing, and communal services were still indicated as the strategic and priority sectors.

With the adoption of the new law on concessions and the law on public-private partnership, many scientists of Kazakhstan from 2010 began to devote their works to the development of the PPP mechanism in the Republic of Kazakhstan. For example, T.M. Matayev (4) who devoted many works to the study of the development of forms of public-private partnership in the Republic of Kazakhstan and defended his doctoral dissertation for the degree of Doctor of Economic Sciences; R. Karenov (5) and G. Shaykin (6) examined the history of the formation and development of public-private partnership in Kazakhstan; A.Z. Beysembinova (7) presented her work to the problems of investment activity of projects of public-private partnership of the Republic of Kazakhstan and also successfully defended her dissertation on the competition of a PhD; A.K. Isina, J.S. Ospanov and A.S. Davletova (8) explored one of the most basic areas of using the PPP mechanism in health care; K. Akhmetova, A. Akhmetova, A. Terzhanova (9) considered public-private partnerships as a mechanism for modernizing the economy of Kazakhstan; A.N. Turginbayeva and Ye.B. Domalotov (10-13) in their writings emphasize the development of public-private partnership in the innovation activities of the Republic of Kazakhstan.

But, nevertheless, this interaction area of the state and business structures is still one of the topical issues for research, since the PPP area of Kazakhstan is one of the youngest in the world and there are gaps in the institutional and legislative framework.

2 Materials and Methods

2.1 Conceptual framework

Public-private partnership is a set of forms of interaction between the state and business, as well as a joint attitude to the risks arising from solving socially significant tasks on mutually beneficial conditions implemented in the medium or long-term periods (Ye.B. Domalotov).

Over the past decade, public-private partnerships have received increasing attention worldwide. Today, the development of PPP is of great importance for the implementation of public infrastructure projects around the world. For example, between 2005 and 2010, a total of 1046 PPP transactions worth the US \$350 billion reached financial closure. And in 2007, the PPP market reached its maximum, when 241 projects with a total capital of US \$79 billion reached financial closure. Also, in 2010, 122 PPP deals reached a financial close with a total value of US \$51.6 billion. (14)

Considering the volume of concluded and completed transactions, it can be assumed that there is a wide variety of forms and models of public-private partnership classification in the world, which in turn negatively affects the understanding of their advantages and disadvantages by the business community, which is one of the main players in PPP models. The most complete and well-described classification of forms and models of public-private partnership is presented in the works of S.Kh. Gimaltdinov (15), which is clearly presented in Table 1.

Table 1. Classification of Forms and Models of Public-private Partnerships

| Type of model | Content and short description | | | | |
|-------------------|---|--|----------|--------------------------------------|--|
| | Property relations | Coordination arrangements | Forms | Mechanisms | Sphere of application |
| Operator's model | Property - private-public; management - private; financing - private. | Separation of responsibility under the control function of the state | Contract | BOT, DBFO, BOOT, BOO, ROT, LROT etc. | Housing services and utilities, infrastructure |
| Cooperation model | Property - private-public; management - private-public; | Joint project campaign of a private investor and the state | Contract | BOT, DBFO, BOOT, BOO, ROT, LROT etc. | Social and cultural sphere, infrastructure |

| | | | | | |
|-------------------|--|---|------------------|--------------------------------------|--|
| | financing - private-public. | | | | |
| Concession model | Property - public; management - private-public; financing - private-public. | Long-term interaction of state and business on the basis of a concession, exclusion of transfer of ownership to private business structures | Concession model | BTO | In all sectors of the national economy, in accordance with the legislation of the Republic of Kazakhstan, innovation, development of territories |
| Contractual model | Property - private-public; management - private; financing - private. | Carrying out activities based on the conclusion of various types of contracts involving state property | Contract | BOT, DBFO, BOOT, BOO, ROT, LROT etc. | Energy industry, infrastructure |
| Leasing model | Property - private; management - private-public; financing - private-public. | Joint activities on the basis of leasing contracts, under which private business structures transfer property into state ownership | Contract | BOT, DBFO, BOOT, BOO, ROT, LROT etc. | Construction and management of public buildings, infrastructure |

The classification of forms and models of public-private partnership given in Table 1 allows the selection of the required model and form in the specific economic conditions of their implementation. Within the framework of this classification, the following models are distinguished with the peculiarities of their content: operator model, cooperation model, concession model, contractual model and leasing model. The content of each model differs in property relations, the order of interaction, forms, mechanisms, and areas of application.

Creating the most favorable conditions for the entrepreneurial initiative, enhancing the competitiveness and investment attractiveness of Kazakh enterprises, expanding their ability to work in open global markets in conditions of tough competition is one of the priorities facing the economy. The solution of this issue is seen, above all, in the consolidation of public, private business structures, and public interests, and more precisely in the consolidation of public and private capital, intellectual and human resources. In general, the scheme of integration interaction of the state, business, and science is presented in Figure 1.

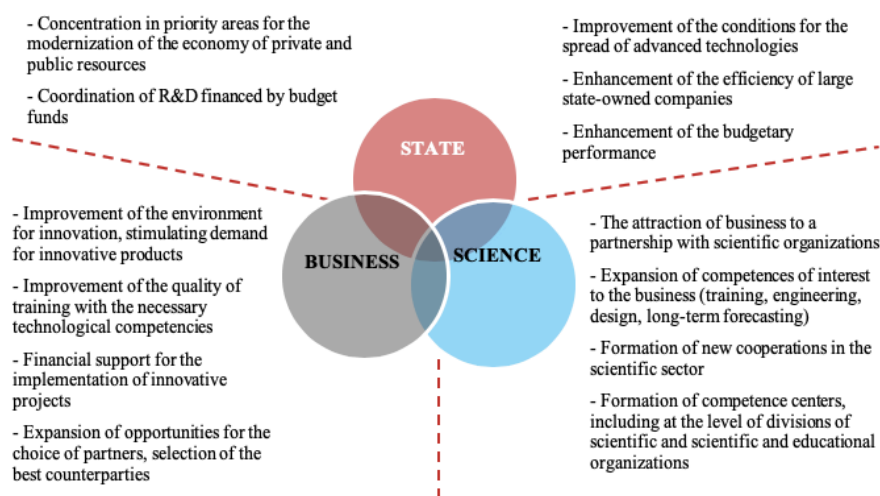


Figure 1. Scheme of Integration of the State, Business, and Science

Source: V.V. Gusev, Ya.V. Guseva (16)

2.2 The state of development of PPP in Kazakhstan

Currently, Kazakhstan implements PPP projects based on a system of sectoral roadmaps. As part of activating public-private partnership mechanisms, the National Chamber of Entrepreneurs of RK Atameken together with the Ministry of National Economy of RK, Ministry of Health of RK, and the Center for PPP developed and approved an Action Plan for introducing new PPP tools, which also contains mechanisms for solving basic problematic issues of PPP. As a result, work is actively carried out on urgent amendments to legislation in terms of state order, which have already entered into consideration by the Government of the Republic of Kazakhstan: (17)

- The implementation of the “PPP Program”;
- Provision of state long-term order over 3 years.
- Implementation of pilot projects of PPP in the framework of the “PPP Program”.
- Development of a mechanism for covering the risks of currency fluctuations for the investor.
- Study of the issue of collateral for PPP projects.
- Making proposals to expand the list of types of costs included in the compensation of investment and operating costs.
- Development of amendments of LSI on the pricing.

According to the Kazakhstan Center for Public-Private Partnership, the following sectors of the economy are indicated in the country, where PPP projects are being implemented and planned for implementation such as “Aerospace Activities”, “Housing”, “Healthcare”, “Infrastructure”, “Culture”, “Education”, “Public Order Protection”, “Environmental Protection”, “Passenger Transport and Highways”, “Entrepreneurship”, “Agriculture”, “Social Sphere”, “Construction”, “Telecommunications”, “Transport and Logistics”, “Tourism”, “Management of MSW facilities”, “Physical culture and sport”, “Energy industry, housing services

and utilities”. It can be noted that in recent years the industries where the PPP mechanism is used have gradually increased. For example, in 2015-2016, in the base of PPP projects, it was possible to observe projects only in the following areas such as “Health care”, “Transport and logistics”, “Passenger transport and highways”, “Education” and “Housing”. Basically, this was promoted by the Law of the Republic of Kazakhstan No. 379-V “On Public-Private Partnership” dated October 31, 2015, where the list of fields of activity and the conclusion of PPP contracts was expanded.



Figure 2. Regional Sectoral Map of Concluded and Registered PPP Projects

Source: Kazakhstan Center for Public-Private Partnership (18)

Analyzing the regional-industry map of concluded and registered PPP projects of the Republic of Kazakhstan (Figure 2), we can see that the total number of concluded and registered PPP projects as of 01.09.2018 are 308 projects for a total of 151,059,437 tenge (≈151.1 billion tenge).

2.3 Analysis of innovation activity of enterprises of Kazakhstan

One of the key indicators of the development of PPP in the innovation sphere is the innovation activity of enterprises in the

development of technological innovations. Analyzing the official statistics provided by the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan for the period 2013-2017, thanks to which we made the forecast until 2021. The main reason that the interval of this sample for the original calculation was taken 2013-2017 is that since 2013 the survey on innovation statistics has been conducted in accordance with international recommendations on product, process, organizational and marketing innovations.

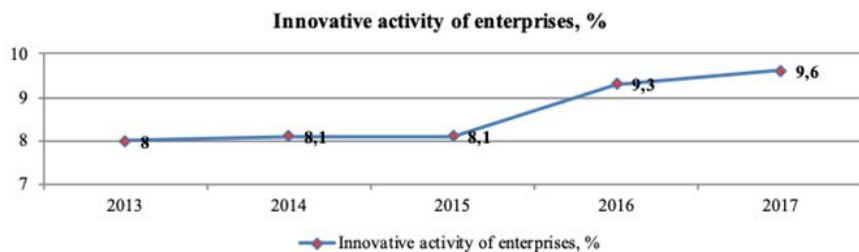


Figure 3. Innovative Activity of Enterprises of the Republic of Kazakhstan

To process the results and build predictive values of the indicators, Microsoft Excel tools were used. The calculation of average indicators and the average standard deviation were carried out according to the following formulas:

$$\bar{x} = \sum x_i / n, \tag{1}$$

where \bar{x} - arithmetic mean;

x - value of the variable for which it is necessary to calculate the average value;

n – number of units in target population.

$$\sigma = \sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 / n}, \tag{2}$$

where σ - standard deviation.

Table 2. Forecast of Development of the Innovative Activity of Enterprises in Kazakhstan, %

| Year | Innovative activity of enterprises | Predictive development | Pessimistic forecast | Optimistic forecast |
|------------|------------------------------------|------------------------|----------------------|---------------------|
| 01.01.2013 | 8,0 | - | - | - |
| 01.01.2014 | 8,1 | - | - | - |
| 01.01.2015 | 8,1 | - | - | - |
| 01.01.2016 | 9,3 | - | - | - |
| 01.01.2017 | 9,6 | - | - | - |
| 01.01.2018 | - | 9,9 | 8,9 | 10,9 |
| 01.01.2019 | - | 10,4 | 9,4 | 11,4 |
| 01.01.2020 | - | 10,8 | 9,8 | 11,8 |
| 01.01.2021 | - | 11,3 | 10,3 | 12,3 |

Source: author

The standard deviation was 1.0%. Total from Table 2 and the visual diagram (Figure 4) we can see the forecast in three versions such as the forecast itself, the pessimistic forecast and the optimistic forecast. Thus, with the existing trends in the

development of innovative activity and market conditions, we can assume that by 2021 the innovative activity of enterprises will be equal to 11.3%, and according to a pessimistic and optimistic forecast it will be 10.3% and 12.3%, respectively.

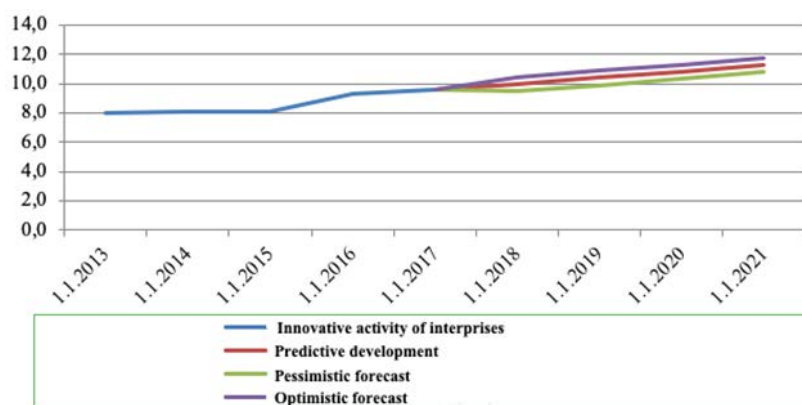


Figure 4. Forecast of development of innovation activity of enterprises in Kazakhstan until 2021

3 Results and Discussion

The most fashionable trend in domestic health care today, in addition to compulsory insurance, is the desire to give clinics and hospitals to trust the management of private companies. Ideally, clinics will become customer-oriented and self-sustaining, but there haven't been exact predictions on this subject yet. However, this does not interfere with the domestic Ministry of Health, for example, in the same Almaty, to put 19 organizations for privatization in search of a private investor. (19)

There is also a story about the construction of private prisons by analogy with common practice in the United States. Talks about four new penitentiary institutions in the republic have been intense for the past seven years. However, the implementation of the project to build the first prison in Kazakhstan through a public-private partnership system, which was announced in 2016, has been delayed. On January 5, 2017, the Ministry of National Economy of the Republic of Kazakhstan gave an economic negative opinion on the project "Construction and commissioning of a correctional institution for 1,500 places in the South Kazakhstan Region". At the same time, the ministry stressed that it is necessary to build new prisons in the country. Since the beginning of this year, due to non-compliance with international standards of prisoners, 9 facilities of the penitentiary system have been closed throughout the country. Now we are considering the issue of building the first in the history of independent Kazakhstan a new prison but at the expense of state funds.

The authorities of Aktobe have not the entirely positive experience of public-private partnership. In the spring of 2017, the private company won a five-year contract for the maintenance of grave sites. In total, LLP "AK Trade Solutions" received a farm in the form of 50 cemeteries of the city of Aktobe and rural districts, 17 of which are subject to conservation.

The most broad-scale project in the framework of public-private partnerships today is, in fact, the metropolitan surveillance system "Sergek" of 13,000 cameras, which was 100% effective only in December 2017 8.4 billion tenge were invested in the system, and the budget does not spend a single penny on it. The private owner intends to return the invested to 2024.

According to the agreement, three Kazakhstani IT companies in the face of Korkem Telecom, Open Technologies Group and The One Capital will install everything on a turnkey basis: cameras, software, data storage servers. Then the system will be transferred to the state after a full audit.

Now there are a number of amendments in the Parliament of the Republic, the introduction of which will help both to increase the coverage and give the average businessman real access to the projects.

One of the proposals concerns a significant reduction in project preparation time. This was announced in August at the meeting of the Cabinet by Timur Suleymenov, the Minister of National Economy. In order to simplify the procedures for planning PPP projects, the whole process was proposed to be reduced from 5 to 3 stages. Only the examination of the investment proposal, the competition and the conclusion of the PPP contract will remain.

The time frame for the preparation of projects of public-private partnership will be reduced from an average of 7 to 3 months. One of the proposed innovations is the introduction of the term “programmatic PPP”; this means that all investor selection procedures will be spelled out in a simplified form in government and government programs without additional expertise. The business will only decide for itself whether it is ready to participate in this program or not.

Secondly, one of the amendments can be called “protection from the state”. It is proposed that a government agency that has signed a contract with a private trader is obliged to plan and mortgage the costs of reimbursement in its budget. These obligations are not subject to sequestration, and payments cannot be deferred. This is done to ensure that a businessman does not go with an outstretched hand to the akim and that the entrepreneur does not have delinquency on loans and credits in banks.

Thirdly, today there are difficult negotiations with the Ministry of Economic Development and the National Bank to ensure that the multi-billion-dollar PPP project contracts themselves become liquid collateral for second-tier banks.

The mechanism of public-private partnership in Kazakhstan has been stalling for the last two years not only because of the reluctance of second-tier banks to lend projects of particular state importance. In the struggle for performance, the regions actively use the credit lines of the “Damu” Fund and the Development Bank of Kazakhstan.

In many cases, the domestic business simply does not believe that after the stage of its own expenses it is guaranteed that it will receive state money. Local officials have taught entrepreneurs of the republic that they have to wait for money, and sometimes to fight for them through the courts.

The main advantage of PPP projects can be the fact that the state will not have to invest billions of tenge in taxpayer funds in the quasi-public sector. Even regional centers annually spend hundreds of millions of tenge for municipal needs, transferring them to various Municipal Utility Services for the right of economic jurisdiction. The quality of work of municipal organizations, even though sometimes having a legal status LLP, leaves much to be desired.

Contracts of PPP projects will be able to change in the future the usual tenders and competitions, most of which are just for a year. And the government can also avoid cases of work with careless contractors because at first the project is being implemented at the expense of the investor. The latter will be interested in, for example, the object under construction was commissioned on time, and normally operated.

However, the PPP will not be a panacea for all Kazakhstan’s ills: it will not be able to cancel or significantly reduce the state’s

social obligations. However, it can make public services and obligations better, and expenses more transparent.

Years of talk and preparation for the launch of the national campaign for the mass introduction of PPP in December 2016 were well characterized by Prime Minister Bakytzhan Sagintayev. The head of the Cabinet of Ministers conveyed the depth of the problems with one Kazakh proverb: “Қалындық ұзатуға дайын, бірақ алатын жігіт жоқ”. In the free translation into English, it sounds like this: the bride is ready for marriage, but there is no groom

After in January 2017, Nursultan Nazarbayev, in his annual Message to the People of Kazakhstan “The Third Modernization of Kazakhstan: Global Competitiveness” devoted a separate block to PPP, it became clear that the decision on the mass use of this mechanism was made at the highest level.

According to foreign and domestic experts, Kazakhstan occupies a leading position in implementing the PPP mechanism in Central Asia. This is confirmed by some facts, such as the creation of a legislative framework (the Law on Public-Private Partnership and the Law on Concessions), SEZs, and development institutions. A separate PPP development institute (JSC “Kazakhstan Center for Public-Private Partnership”) has been established and is successfully operating.

However, despite this, in Kazakhstan today there are enough problems associated with the implementation of PPP projects. Based on the analysis of the PPP market of the Republic of Kazakhstan, we can cite a number of common problems and problems associated with the implementation of PPP projects in the innovation sphere:

- Lack of systematic development of PPP in Kazakhstan (in reality, an approach to the formation of PPP projects is used according to the principle of finding a project with available budget funds, and not the funds for a project);
- Lack of a unified program document of the phased strategy for the development of PPP (the poorly developed plan of measures for the short- and long-term periods);
- Lack of an information resource covering the problems and prospects of PPP development, legislative initiatives, news of PPP infrastructure subjects, international practice, a transparent list of PPP projects, etc.;
- Lack of experience in implementing PPP projects in the field of innovation, as well as development programs and regulatory documents on PPP in the innovation system;
- Closed nature and confidentiality of implemented PPP projects and projects under implementation, which in turn do not provide a complete picture for a private investor, who is one of the most important players and a driver of a successful project. Based on this, a private investor will be afraid to invest his or borrowed funds in a certain project, seeing greater uncertainty and confidentiality of the effectiveness/efficiency of the projects implemented earlier.

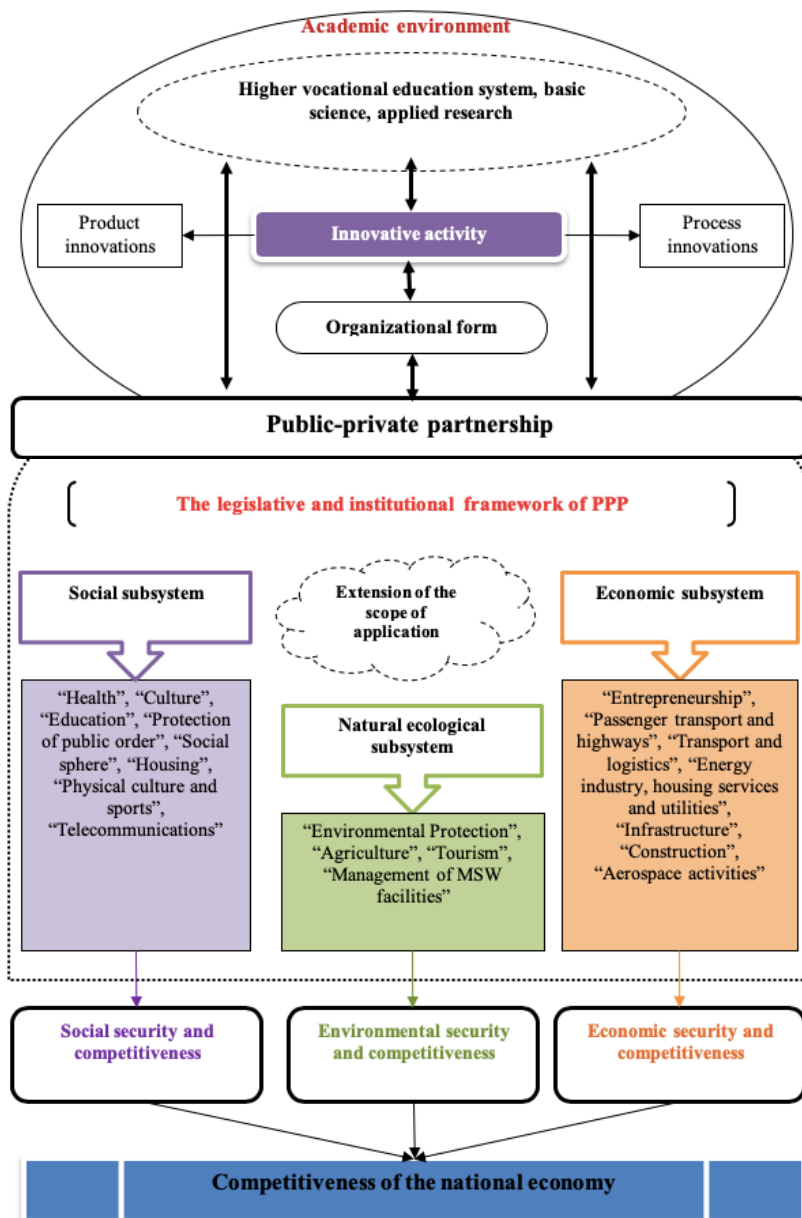


Figure 5. The Conceptual Model of the Development of PPP

The center of this model, its core is the system of higher professional education, integrated with fundamental and applied science, creating the scientific and educational environment of the region. It is education as a system for the reproduction of the intellectual capital of a region that is the main element of the model that generates the production, transfer, and dissemination of knowledge, that is, it is the first link in the innovation cycle "education - research - mass development of innovation". The central role of the education system in this model is also due to the fact that it is human resources that are currently the most important source of wealth and competitiveness of the region.

Moreover, according to modern studies, the level of education of the population employed in the economy of the regions of Russia has a noticeable positive and statistically significant effect on the levels of production in these regions. The contribution of this variable to the gross regional product per region occupied in the economy varies from year to year from 40 to 65%, and the social rate of returns to education (manifestation of the external effect) varies from 36 to 79%.

In the academic environment, such specific factors of production as knowledge and information are involved into circulation.

Innovation as the end result of innovation activity is embodied in a new product being introduced on the market, a new or improved technological process or a new approach to the organization of production. At the same time, the state-private partnership acts as an organizational innovation as a new business model, a new form of economic management, an emerging structure based on economic relations of constructive interaction between the state and business.

The model diagram shows bilateral arrows between the scientific and educational environment of the region and the public-private partnership. This means that, on the one hand, PPP is a product of innovation, on the other hand, PPP spreads and penetrates into the field of scientific and educational activities of the region, carrying out here the transformation of economic relations.

We believe that the process of "cultivating" public-private partnerships should begin with a system of higher vocational education, since, first of all, it is necessary to train specialists who are not only knowledgeable about the theoretical issues of

its operation, but also proficient in the preparation of PPP projects with management skills such projects that own technologies for attracting investors to PPP projects, etc. Certainly, a public-private partnership at the regional level cannot be created without a formalization, i.e. we need an appropriate law. However, it should also be developed by specialists trained accordingly.

The double arrows connecting the “Public-Private Partnership” block with the scientific and educational environment, in particular with the “Innovative Activity” and “HVE System, Fundamental Science, Applied Research” blocks, reflect the extension of PPP to these areas. The expansion of public-private partnerships to education is related to the transformation of economic relations between the state and education: from the state, transformation is the development of a “market” element in the provision of public goods; for the private sector, transformation is manifested in the development of a “public” element in the provision of private goods. This new form should not be considered as a way to replace the state in financing education, within specific societies, education and the market should exist in collaboration.

The interaction of government and business in innovation is reduced to the distribution of roles: the role of the private sector is to develop technologies based on our own research and in the market development of innovations; the role of the state is to promote the production of fundamental knowledge, as well as to create the infrastructure and favorable institutional conditions for the innovation activities of private companies. At the same time, the state acts as a “peculiar” participant bringing the commercial and public effectiveness of innovative projects into compliance.

PPP is a mechanism for engaging businesses in areas and projects where it is difficult to talk about quick returns and where risks are very high. The private sector is not so much a source of financial resources, but a more efficient manager who risks in the future with invested funds.

The development of public-private partnership in the innovation sphere will allow attracting significant private investment, which, in turn, should contribute to the implementation of infrastructure projects and reduce the burden on the state budget. As a result of the spread of the institution of public-private partnership in the scientific and educational environment of the region, a single innovative field of the region can be created, an innovative economic structure is formed.

2. The evolutionary spread of public-private partnership to all subsystems of the region such as economic, social, natural-ecological. They are shown in the figure as open (dashed contour), in addition, they are interconnected with each other: the development goals of the economic subsystem are formed within the social subsystem, which is also a consumer of products produced by the economic subsystem. The economic subsystem in order to achieve its goals uses the resources of the natural-ecological subsystem, supplying it, in turn, production waste. Nature under the influence of waste coming from the social and economic subsystems changes its properties as a human habitat and thereby affects society. At the same time, these subsystems receive new products and technologies as the results of innovation, which leads to qualitative changes in the subsystems themselves and brings the regional socio-ecological-economic system to a higher level of competitiveness. In this model, all those areas that, in our opinion, reveal weak competitive positions of the Krasnoyarsk Krai such as education, health, innovation, transport infrastructure, ecology. The use of public-private partnerships leads to a fundamentally qualitative change and increase the efficiency of the public sector, the traditional producer of public goods. At the same time, the inefficiency of the state can be overcome with the help of efficient market mechanisms, and market failures can be compensated for by the state's success, and vice versa. Thus, a complex interaction pattern arises, with a high degree of uncertainty and various forms of interaction and channels of interpenetration.

4 Conclusion

Thus, based on global practice and trends in the development of PPP in Kazakhstan, it can be argued that the formation and use of PPP mechanisms in innovation activities will eventually become a reality for the PPP market in Kazakhstan. As the authors of the scientific work “The Development of Public-Private Partnership in the Innovation Sphere of Kazakhstan” A.Zh. Panzabekova and G.M. Andreeva for the formation of a public-private partnership in the innovation sphere, the following main areas are advisable: (20)

- The complementary participation of the state and the market in innovation processes.
- The division of innovation risks between the state and business.
- The use of decentralized channels of state support for innovative activity.
- Naturalization of state support for innovation.
- Support networks of enterprises through programs to support innovation in small and medium businesses.

And in turn, we by agreeing with the statements of the authors, additionally suggest adding to this list the following areas and measures for the successful development of PPP in the innovation sphere of Kazakhstan:

1. Inclusion of new industries in the PPP database as: “Scientific research” and “Innovative infrastructure”. In some countries where PPP is highly developed in the innovation sphere, this category is highlighted separately. And we propose to implement this experience in Kazakhstan by developing special regulatory laws and statutory instruments.
2. Development of development programs and regulatory documents on PPP in the innovation system, based on international experience, which in turn will contribute to the development of PPP in the innovation activities of the Republic of Kazakhstan, as well as solve a number of conflicting problems of implementing PPP in innovations.
3. Creation of a separate state body responsible for implementing the PPP policy and carrying out appropriate coordination between ministries, departments, Akimats, and the private sector, since the Institute of PPP Development in Kazakhstan (JSC “PPP Center”) is primarily engaged in consulting and expert activities, rather than management PPP projects.

Literature:

1. Law of the Republic of Kazakhstan of December 23, 1991 No. 1021-XII On Concessions in the Republic of Kazakhstan; 1991. Available from: https://online.zakon.kz/Document/?doc_id=1000820
2. Law of the Republic of Kazakhstan of July 7, 2006 No. 167-III “On Concessions”; 2018. Available from: https://online.zakon.kz/Document/?doc_id=30062571#pos=4;-256
3. Turginbayeva, A.N. Kazakhskiy opyt infrastruktornogo obespecheniya natsional'noy innovatsionnoy sistemy [Kazakh experience of infrastructure support of the national innovation system]. INNOVATSII. 2008; 2(112):74-76.
4. Matayev, T.M. Perspektivy razvitiya form gosudarstvenno-chastnogo partnerstva v Respublike Kazakhstan [Prospects of development of public-private partnership in the Republic of Kazakhstan]. Rossiyskoye predprinimatelstvo. 2011; 12(2):187-192.
5. Karenov, R. Stanovleniye gosudarstvenno-chastnogo partnerstva v Kazakhstane [Formation of public-private partnership in Kazakhstan]. Ekonomist. 2012; 4:61-67.
6. Shaykin, G. Razvitiye gosudarstvenno-chastnogo partnerstva v Respublike Kazakhstan [Development of public-private partnership in the Republic of Kazakhstan]; 2012.
7. Beysembinova, A.Z. Problemy investitsionnoy deyatel'nosti na osnove gosudarstvenno-chastnogo partnerstva [Problems of investment activity on the basis of public-private partnership]. Sibirskaya finansovaya shkola. 2012; 1:144-150.

8. Isina, A.K., Ospanov, Zh.S. & Davletova A.S. Gosudarstvenno-chastnoye partnerstvo v zdravookhraneni [Public-private partnership in healthcare sector]. Nauka i zdravookhraneniye. 2013; 5:8-12.
9. Akhmetova, K., Akhmetova, A., & Terzhanova, A. (2014). Gosudarstvenno-chastnoye partnerstvo kak mekhanizm modernizatsii ekonomiki Kazakhstana [Public-private partnership as a mechanism for the modernization of the economy of Kazakhstan]. Obshchestvo i ekonomika. 2014; 11:88-100.
10. Dubina, I.N., Turginbayeva, A.N. & Domalotov Ye.B. Gosudarstvenno-chastnoye partnerstvo kak effektivnyy instrument i mekhanizm razvitiya innovatsionnoy ekonomiki. Statistika, uchet i audit [Public-private partnership as an effective tool and mechanism for the development of an innovative economy]. 2017; 3(66):93-101.
11. Turginbayeva, A.N., Domalotov, Ye.B. Шетелдегі мемлекеттік жеке-меншік серіктестік қарым-қатынасының ерекшелігі [Features of the relationship in public-private partnership in foreign countries]. Vestnik KazNU imeni Al-Farabi (seriya ekonomicheskaya). 2017; 4(122):132-143.
12. Domalotov, Ye.B. Kazakhstan v kontekste global'nogo indeksa innovatsionnoy aktivnosti [Kazakhstan in the context of the global index of innovation activity]. Doklady NAN RK. 2018; 4(320):124-130.
13. Dubina, I.N., Turginbayeva, A.N. & Domalotov, Ye.B. The choice of public-private partnership in innovation. Izvestiya NAN RK. 2018; 4(320):21-29.
14. Babatunde S. (2015) Developing public private partnership strategy for infrastructure delivery in Nigeria [dissertation]. [Northumbria University]; 2015. Available from: <http://nrl.northumbria.ac.uk/27295/>
15. Gimaletdinov, S.Kh. Modeli gosudarstvenno-chastnogo partnerstva i vozmozhnosti ikh ispol'zovaniya v regional'noy ekonomike [Models of public-private partnership and the possibility of their use in the regional economy]. Ekonomika i sovremennyy menedzhment. 2015; 6(50).
16. Gusev, V.V., Guseva, Ya.V. Public-private partnership in the innovation sphere as a basis for consolidated management of modern economy. Management issues. 2016; 1(38):53-58.
17. Roadmap on the development of PPP on the control of the Government of Kazakhstan. Atameken; 2017. Available from: <http://atameken.kz/ru/news/26774-razrabotan-plan-po-vnedreniyu-novyh-instrumentov-gchp>
18. Kazakhstan Center for Public-Private Partnership; n.d. Available from: <http://kzppp.kz/>
19. PPP projects can bring the economy of Kazakhstan 1 trillion tenge. What do we need to do? InformBuro; 2017. Available from: <https://inforburo.kz/stati/proekty-gchp-mogut-prinesti-ekonomike-kazahstana-1-trillion-tenge-chto-dlya-etogo-nuzhno-sdelat.html>
20. Panzabekova, A.Zh. & Andreeva, G.M. (2017). Razvitie gosudarstvenno-chastnogo partnerstva v innovatsionnoy sfere Kazakhstana [Development of public-private partnership in the innovation sphere of Kazakhstan]. Nauchnyy zhurnal NIU ITMO. Seriya «Jekonomika i jekologicheskij menedzhment», (1), 34-41.

Primary Paper Section: A

Secondary Paper Section: AD, AH

LINGUA-CULTURAL APPROACH TO KAZAKH NUMERALS WITH NATIONAL CODES

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Abstract: This article treats numerals from the point of lingua-cultural and cognitive approaches. Numerals with national codes supply readers very valuable information about Kazakh people's background, present-day life, culture, and traditions. Kazakh numerals should be thoroughly studied from the historical point of view. The Valuable information about Kazakh people, their ancestor and young generation taken from the study of numerals, passes from one generation into other generations. Young generation feels proud of their history and they appreciate their native culture, traditions. The study of Numerals of Kazakh culture with national codes lets young generation respect the people and feel proud of their native culture. numerals, in general, are not only numerals but they are words which are meaningful. Those numerals with national codes carry many priceless stories about the people's past.

Keywords: concept, culture, history, mindset, cognitive lingua-cultural aspect, approach, traditions, customs, superstitions, proverbs, sayings, mythological, religious, numerical concept, ethnic, thinking.

1 Introduction

Linguistics of the XXI century stated that language is not simply the instrument of the communication but it is the storage of people's history, tradition, culture, and their mentality.

V. Humboldt confirmed, "The bounds of the language of my nation mean the bounds of my world view" [1]. Three closely connected triangles: man-world-language from the anthropological point of view is important because they are closely connected with each other. According to A. Vezhbyt'skaya [2], word meaning is anthropocentric, that is, represents properties of human nature, and it is ethnocentric. It is impossible to describe „the world as it is” by verbal means: first of all, language imposes a certain world view on its users, besides each language sets its own. [2]

The anthropological linguistics is understood, first of all, as the research of the human factor in language. In the attention center, it appears to have two circles of problems: how the person influences language; how language influences the person, its thinking, and culture. Language reflects not only reality but also interprets it, creating a special reality where man lives. A.M. Heidegger, an outstanding thinker of the last century named language "The house of reality." [3]

Language and culture interaction is one of the central problems in linguistics. The first attempts of the decision of this problem have shown in V. Humboldt's research work as material and spiritual culture which are embodied in language; its national character is expressed in language by means of special vision of the world; language is an expression of national spirit, its culture; language is a mediating link between the person and the world. [4] V. Humboldt's concept has received original interpretation in the A.A. Potebnya's work «Thought and language» and in other scholars' work.

The linguistics of the XXI century actively develops the way, where a language is considered as the cultural code of a nation, but it is not simply the instrument of communication and knowledge. The fundamental basis of such access was defined by the theories of V. Humboldt, A. Potebnya and other scholars.

The study of lingua-cultural aspect of the interrelation of language and culture let us come to the conclusion that lingua-culturology is a new aspect of a complex approach to language and culture, their interrelation with each other, mutual influence on the development of culture and language, their links with social life, psychology, and philosophy.

The well-known scholars such as M. Kashkary, A. Navoyee. devoted a lot of their works to the interrelation and correlation between language and culture, language and nation and the specific way of thinking that differs from other nations.

American scholar Wilfred Funk wrote "Lexis is like a mirror in language, through it to know the past life of the nation" [5].

L.R. Palmer [6] wrote, "Language history and culture history is closely related and reflect each other in some way."

Language is the fact of the culture because it's a component of culture which we inherit from our ancestors; language is the basic tool by means of which we acquire culture; language is major of all phenomena of a cultural order, if we wish to understand the essence of culture - a science, religion, literature we should consider these phenomena as the codes of developed model. Therefore, the conceptual judgment of culture can occur only by means of a natural language.

In present-day cognitive linguistics, concept is one of the most widely used notions. Many researchers treat it quite differently from each other and vary in different scientific schools. The concept is the category of thinking, it is an aspect of thought and it gives plenty of room for its interpretation. Today the category of concept appears in the studies of philosophers, logicians, psychologists.

At the start, the term "concept" was used as a generalized word-nominator, which in the process of thinking replaces an uncertain set of objects, actions, cognitive functions of the same kind. D.S. Likhachov used this term to refer to the generalized cognitive unit, which reflects and interprets the phenomena of reality, depending on education, personal experience, the professional and social experience of a native speaker [7].

Some scholars consider the concept as a discrete mental unit which reflects the object of the real or imaginative world and is kept in the national memory of native speakers in the verbalized form. In the Dictionary of Cognitive Terms, the concepts are defined as "operational meaningful unit of memory, mental lexicon, conceptual system, brain language, and the whole picture of the world reflected in the human mind" [8].

In general use, the term mainly denotes "idea" or "notion". The concept has a purely cognitive status and does not exist outside the mind.

So the nature of concepts and their relation to the things and to the minds are among the most hotly disputed subjects in present-day linguistics.

A concept is a unit of cognitive level; therefore, it absorbs everything that comes from "the world of mind" and is reflected in the meaning. At the same time, the concept is also a phenomenon of culture; it accumulates its heritage.

The theory of the "concept" has been studied by scientists D.S. Lihachev, N.D. Arutyunov, A. D. Babushkin, V.A. Maslov, A.L. Turevich, Yu. A. Stepanov and others.

In Kazakh linguistics, the concept is understood by E. D. Suleimenova as objects of realities which an individual knows, imagines and thinks [9].

Cognition refers to mental activity including thinking, remembering, learning and using language. When we apply a cognitive approach to learning and teaching, we focus on the understanding of information and concepts.

The concept is one of the principal categories of cognitive linguistics. The concept is the main component in the cognition of nation's peculiar outlook. It is a complicated structure denoting the centuries-old notion about cultural values and a brief and meaningful objective reality preserved in the ethno-cultural consciousness, handed down from generation to generation.

2 Materials and Methods

According to S. Stepanov [10], the concept of a number refers to "culture concentrates" and is closely related to the categories of quantity, quality, space, and time.

The process of the concept is closely related to the names of figures. For instance, number three shows the actual amount of one thing defined as the lexical unit in the following way: three - more than two, less than four. Names of figures are connected not only with the nation's spiritual and material culture but also with social existence phenomena and things involved in the recognition of abstract concepts. For example, the name of "Three zhuz" means not only the amount of the actual things, where it is combined with the word "Zhuz" but it is also related to the knowledge of the construction of the Kazakh ethnic components.

In the history of the Kazakh people's material and spiritual culture, which reflects the level of daily life which is the source of life of ethnic groups is connected with figures such as three zhuz (three divisions), beskaru (five weapons), eki dunie (two worlds)/ Zhetykarakshy (Great Bear), besatar (five-shooter), three zhurt (three generations), segiz koz (rump), segiz ayak (octopus), etc. Such words have a wide social meaning. Because their meaning or language is widely understood by almost all members of society [11].

3 Results and Discussion

"Three Zhuz" means three divisions of Kazakh people. They are the Greater (zhuz) Horde, the Middle (zhuz) Horde and the Junior (zhuz) Horde. In these complicated names, there are several opinions about the etymology of the word "The Zhuz".

Kazakh scholars S. Amanzholov related the word "zhuz" to figure 100; J. Dosqaraev associated the etymology of the word "zhuz" with the words "duz" and "tuz." E. Zhanpeiisov connected the term "zhuz" with words like "generation" related to Turkic languages. [12]

So, the etymology of the word "zhuz" is related to the word "generation". According to some historical novels "Three Zhuz" did not mean territorial or Kazakh tribal divisions but "Three Zhuz meant three Kazakh brothers". Thus, the name of this complex name of "three zhuz" can mean born brothers. [12]

"Three zhurt (generations)". Kazakh people say "a man has three zhurt (generations)". They are "agaiyn zhurt" - father's relatives, "nagashy zhurt" - mother's relatives, "kaiyn zhurt" - wife's relatives. When people ask "How is the three zhurt?" they want to know if everything is all right and safe in your family with your mother's relatives, with your father's relatives, your wife's relatives.

V.A. Maslova noticed that numbers are elements of a special code with which the world is described, they are the basis of music, poetry, architecture, and art [13]. According to V.A. Maslova, numbers are used in superstitions, religions and in mythology around the globe.

Numbers will always be a part of our daily life. This site is dedicated to shedding light on the symbolism and the meaning of numbers in various societies [11].

The concept of numbers can be an indicator of "picture of the world" of culture in which it was formed. Numerical symbols are formed in the course of long cultural and social factors. Therefore, the symbolism of numbers is the object of cultural

studies and requires thorough investigation from cultural and philosophical, ethnographic, linguistic and cultural and semiotic aspects. In turn, these studies provide an opportunity to reconstruct the holistic system of the whole culture. Ontology of numeracy is formed as a result of the notion of the category of "time" and "space." For example, the phrase "Zheti alem" ("seven worlds"), "tort tustik" ("four sides of the world") show a representation of the world construction of Kazakhs' world.

If we consider the national cultural aspects of numbers in the Kazakh culture, the following numbers are very popular. They are three, four, five, six, seven, eight, nine, forty, and sixty-two. Our people learned to count from ancient times.

The word 'zheti' in Kazakh means "seven". In 'etymological dictionary of Turkish words, E.V. Sevortian [12] states that word zheti originates from the word "zhetti, zhetu, zhet" which means "get, achieve". Kazakh mythologist S. Kondibay [13] connects the significance of number seven in Turkish culture 'In the ancient times people used to describe life obstacles with squares or circles which decrease to its centre. The centre of these figures was a dot. If decreasing circles and squares meant life obstacles, the dot in the centre was associated with the target, aim point of the life" The target point in the centre of figures in Turkish pronounced as 'ngengt'. As time goes by this word changed in the following order: 'ngengt' > 'iengt' > 'ient' > 'iet' > 'zhet'. Later from this word 'zhet' was the derived number zheti. Consequently, the initial meaning of the word "zhet" which meant the point of target, highest point, the most, the highest target was transformed to number seven. Therefore in myths number seven is used in the meaning of superlative: the most and the best.

The first word-combination in Kazakh with numerative seven is "zhetiata". In a dictionary for this word is given a translation to the "seven generations". Word-for-word translation is "seven grandfathers". However, this translation cannot express all extra-linguistic context of Kazakh word combination "zhetiata" since the significance and meaning of seven grandfathers are very vital in Kazakh culture. Therefore it would not be understandable for a representative of other culture to get the whole context of word-combination by "seven grandfathers or to the seven generations".

In Kazakh culture, there are several traditions connected with "seven grandfathers". Descendants of one man cannot get married to each other until the seventh generation. It is believed that this custom will help to prevent different health problems and to preserve genealogical purity. In fact, medically it's proven that children whose parents have near relation have serious problems with health because of some variance in blood structure.

As a result, there has been established a tradition to know the chain of all seventh grandfathers name including father's name. The one who does not know his/her grandfather's name to the seventh preceding generation was considered disgraceful, and ill-mannered. This tradition is still strong among Kazakhs.

In Kazakh culture, marriages until the seventh preceding generations were not allowed. Therefore, the significance of the knowledge of all seven great-grandfathers chain is very important. Those who do not know them are recognized as kinless and rootless and are not respected by the people. This custom is still actual and even nowadays Kazakhs ask the names of their "seven great grandfathers" as the way of examining each other while being acquainted.

The analysis of numerative seven in Kazakh culture showed that number seven is used for strengthening definite meaning.

Now we consider the etymology of number "three" in Kazakh culture. It is often found in beliefs regarding traditions.

For example, there are a lot of proverbs and sayings as "3 times boiled but the broth is not mixed," means "no unity". In addition, "a man makes three attempts". In addition, the number "three"

has the meaning of “full” and “complete”. In oral folk literature there are also a lot of phrases related to the number “three” as “once upon a time someone had three sons” or “the Khan asked the question three times”. Also in Kazakh tradition, there are many concepts as three richness (health, his wife and his castles), three bad actions (to shed blood, to steal castle, to destroy parents’ house), three drawbacks (stupidity, laziness, cruelty), three truth (God, Koran, the Prophet).

Twelve – is one of the sacred numbers for Kazakh people. In a 12-year cyclic calendar, each year was named after an animal and each person who was born in that year obtained the particular animal’s character. Kazakh names of the calendar years are: tyshkan (mouse), siyr (cow), barys (leopard), koyan (hare), ulu (snail), Zhylyan (snake), Zhylyky (horse), koi (sheep), meshin (monkey), tauyk (hen), eet(dog), donyz (boar).

In Kazakhs, the word “Müşel jas” means Jupiter calendar. Jupiter does a complete revolution around the Sun approximately in 12 years. Dividing the Jupiter’s path into 12 equal parts with 30 degrees in each section, each part was given the name of a certain animal. The expression “bir müşel jas ötti” (literally it means one more “12 years have passed”). Five moushels make 60-year ‘толық мүшел’ (full moushels). Moreover, minor cycles are built-into big ones, that infinitely repeat.

The word ‘müşel’ is derived from the word ‘müşe’ – a part. The 12-year structure of this cycle corresponds to the traditional ideas of an animal structure. There were 12 months in a year, each one having 30 days.

Good wishes for other people sounds like this: “on eki mushen sau bolsyn” (word for word translation – may all your 12 parts of your body be healthy.) – means: wish you healthy body.

The next sacred number is forty. It takes a special place in the folklore. There a great number of fixed expressions and proverbs with this number: “one among the forty people is the holy one” / they believed that one among forty guests coming to your house would bring luck; a woman as a cat has forty souls. It means that women are strong physically; even if the battle lasts forty years the one who is destined to stay alive will return home”.

“Kyrkynnan Shygaru” – the first forty days of a newly born child are believed to be special. The first forty days after the birth of a baby are considered to be critical and a bay is under threat. Meanwhile, the child is not shown to the public so as not to ‘have an evil eye’. After forty days forty spoons of water are poured into the bowl with some silver and by the invited guests with best wishes for the baby and an elderly respected lady pours the water on the baby with everyone’s good wish and she is given the honor to cut the baby’s nails and hair.

Forty is considered a holy figure and many traditions are connected with this number.

There are forty rules, which must be followed by a girl. When there is a marriage in Kazakh culture and there is such saying “the thirty days are for games and forty days are for a marriage ceremony”. It means that marriage ceremony lasts 40 days in Kazakh culture. Relating for males there is such saying “if a young man didn’t break a castle at thirty, will not do anything at forty”. “One of forty guests is Kydyr”, which means that any visitor is supposed to bring prosperity and joy to that home.

For Kazakhs, Friday the thirteen (13) is really a respected day. That Friday is the best day of the week from the religious point of view. Number 13 in Kazakh culture is lucky.

“At 13 he/she is an owner of a home,” which means “at the age of thirteen (13) a teenager is mature enough to have his own family but it does not really mean he/she can have his/her home, it underlines that he/she should be responsible as a grown-up”.

In Kazakh tradition, there are lucky numbers as three, seven, nine and combination of numbers as 999, 777 and others. They are considered a symbol of prosperity and luck.

For many centuries “seven” is the lucky and sacred number for Kazakh people. It takes a special place in national customs, traditions, and mindset. For many countries all over the world, the number “seven” is sacred one.

In preparation of Nauryz-Kozhe (Noodle),” you should add seven ingredients to the noodle: water; meat; salt; flour; cereal; milk.

These seven ingredients signify the seven life beginnings: joy; luck; wisdom; health; wealth; speedy growth; heavenly protection.

That day one should visit seven homes and invite seven guests to his home.

In Kazakh culture, there are a lot of phraseological units and proverbs, fixed expressions with this number. For example zheti ata- seven grandfathers; zheti zhargy – seven laws; zheti kazyna- seven richness; zheti kyn- seven days; zheti tyn – seven nights (word for word translation) and so on.

The most part of proverbs based and associated with number seven. For example: zhut zheti agaiyndy- misfortune never comes alone but with 7.

According to some researches there are a lot of fixed expressions with the number “nine” in Kazakh culture. The number nine (one more than eight, or one less than ten; the sum of five units and four units)

It comes from the idea that is dated back to the ancient superstitions and traditions that the world consists of nine pieces or parts.

Togyz kumalak “nine balls” the most popular games dating back to ancient times, is considered as a national sport of Kazakh. According to the current data, it has a long-lasting history about 4000 years.

Nomads believed that number 9 is a holy number, which symbolizes the peak of existence and is widely used in Kazakh traditions and customs.

Now we consider the cognitive characteristics of the number “four” in Kazakh culture. The value and cognitive characteristic of the number “four” in the aspect of cultural, religious outlook is related to legends, customs, and traditions.

In the proverbs about cattle breeding, the number “four” is a popular one for Kazakhs. For example: Proverbs about friends and enemies: Dushpan kozi torteu (enemy has four eyes); tort tuliktin toresi tuye (the best and head of cattle is a camel), otirik ekeu, shyn torteu (lie is two, truth is four), bi ekeu bolsa, dau torteu (if the judge is two, quarrel will be four), otirik pen shyndyk arasy tort eli, (the difference of lie and truth is four if you see with eye is true, if you hear it is a lie) kozben korsenshyn, kulakpen estisen otirik.

In Kazakh cultural worldview, the number four also represents unity, balance, totality and stability. Tort ayagy ten, tuligi sai boldi (to be wealthy), tort kosi tugel (all are present), dunienin tort buryshy (the universe), tort kubilassy tugendeldi (reached all his aims), tort turmany tugel sai (having everything for housekeeping) and others.

In early times, number 3 was considered as a holy number. This number symbolized three unity of the world – upper, middle and lower; the symbol of present and future.

4 Conclusion

The concept of number in Kazakh culture from the cognitive and lingua-cultural points of view appears to be an absolute means by which Kazakh culture expresses its vision of the world. through different numbers of Kazakh culture, we could get valuable information about their historical background and Kazakh people’s picture of life. we tried to discover a new side

of numbers in Kazakh culture through phraseological units, proverbs and sayings, religions and mythological beliefs with numbers.

In Kazakh culture numbers "three", "five", "seven", "nine", "thirteen", "nineteen" and "forty" are thought to be sacred among other numerals. "Five", "seven", "thirteen" and "nineteen" are to be studied with special attention as well.

In other words, if we sum it up that throughout history the meaning of numbers have played an important role in the life of mankind and always be a part of people's daily life and past. In Kazakh culture, numerical concepts are mostly based on religious and mythological beliefs and superstitions. Numbers are known to be an integral part of the ethnic culture of Kazakh people.

The most widely used above-mentioned numbers with the national codes in Kazakh culture are like the mirror of peoples' life.

Literature:

1. Humboldt W. *Selected works on linguistics*. Moscow; 2008.
2. Vezhbytskaya A. *Language. Culture. Cognition*. Moscow; 1996.
3. Williams D. *Language and being: Heidegger's Linguistics*; 2017.
4. Humboldt W. *Language and Philosophy of culture*. Moscow; 1985.
5. Funk W. *Word Origins and Their Romantic Stories*; 1950.
6. Palmer LR. *An Introduction to Modern Linguistics*. Beijing: Shan u; 1983.
7. Likhachov DS. Concept sphere of the Russian language. *Izvestiya Akademii Nauk SSSR. Series: Literature and language*. 1993; 52(1):3-9.
8. Kubryakova ES et al. *The Concise Dictionary of Cognitive Terms*. Moscow: Moscow State University; 1996.
9. Suleimenova ED. *The Basics of Contrastive Linguistics*. Almaty: Demeu; 1996.
10. Stepanov US. *Concept Dictionary of Russian Culture. Research experience*. Moscow; 2001.
11. Maslova VA. *Lingvokulturologiya [Lingua-culturology]*. Moscow: Flinta; 2007.
12. Sevortian EV. *Etimologicheskiy slovar tyurkskikh yazykov [Etymological dictionary of Turkic languages]*. Moscow: Nauka; 1978.
13. Kondibay S. *Argi kazak mifologiasi [Posterior Kazakh mythology]*. Almaty: Daik-Press; 2004.

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ISSUES OF NATIONAL DEVELOPMENT IN THE KAZAKHSTAN PRESS IN THE 1950S AND EARLY 1960S

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Abstract: With the end of the World War II in the USSR, the most important task was the restoration of the war-ravaged economy in a large part of its European territory and ensuring the development of industry and agriculture. An important place in this business was assigned to Kazakhstan, which was exceeding the prewar level of industrial production, in very difficult conditions. The economic growth of the post-war years and the development of industry in Kazakhstan - all this had an impact on the consciousness of people. Also, it could not help but affect the growth of the national self-consciousness of the Kazakh people. During the same period, there was an increase in Kazakh intellectual potential in the process of developing the system of public education and raising the educational level of the population of the republic. Soviet ideology and official propaganda in the 1950s again recalled to the class approach in assessing historical personalities and events in the life of the Kazakh people. This shows that long ago the Soviet-Party nomenclature transformed Marxist-Leninist doctrine into a dogma once again.

Keywords: national self-awareness, official propaganda, Soviet press, development of education, cultural level, virgin lands, dogmatism, Soviet people.

1 Introduction

Problems of national development, their development in journalism have long attracted the attention of foreign, Central Asian, Kazakh scientists studying the theory and practice of the media. Despite the fact that in recent decades it has been one of the priorities in academic circles, discussions of politicians, public figures, workers of culture and art. Although the issues related to the growth of people's self-awareness and the search for a national idea are becoming particularly oblique in the context of the new geopolitical realities and threats of the 21st century. They are both topical for the countries of the European Union, and the CIS, and the Middle Eastern states, and the countries of Southeast Asia and Latin America. Globalization has turned this problem into the world one.

Certain issues of interrelations between people due to complexity, drama, and confusion on the one hand, and on the other hand, related to the processes of the current moment, based on the priorities of a particular political conjuncture, attracted and still attract the attention of social scientists, including the theories of journalism.

Certain information on the subject of this article is contained in the works of Western and Russian specialists. These are, first of all, the works of S. Hantington, H. Shukman, H. Arendt, I. Berlin, A. D'Agostino, R. Pipes, Z. Brzezinski, A. Avtorkhanov, J. Zhelev, R. Tucker, E. Carr, B.D. Brutskus, W. Shendel and E. Zurcher, and O. Roy. (1-16)

They investigate despotic nature, the subordination of civil and other freedoms, the life of nations and ethnic entities, the entire socio-political system, the ruling power. The imperial essence of the Soviet state is considered critically, its national doctrine, which was reduced to the assimilation of small nations to large, the ethnic identity leveling of people and on the basis of Russification, to the violent formation of a super nation of the Russian-Soviet type.

Certain information of interest to scientists is contained in the writings of Soviet researchers. Thus, their work with rich factual material remains vulnerable from a theoretical point of view, since the ideological orientation and political engagement of that time set the task of demonstrating the success of a multinational

power. Moreover, even when in the USSR, during the period of perestroika rethinking, attempts were made to adopt a new approach to the analysis of the history and modernity of a multi-ethnic society, the authors could not break out completely from the captivity of stereotypes of totalitarianism.

In the context of this article, studies of scientists from Central Asia and Kazakhstan, developing questions of the history and theory of journalistic science, are of some interest. Here we should mention the works of T.S. Amandosov, H. Bekkhozhin, T. Yernazarov and A.I. Akbarov, B. Kenzhebeyev and T. Kozhakeyev, M.K. Barmankulov, S. Kozybayev and S.S. Matviyenko, K. Allabergenov, S. Nurgozhina, S. Sadykov, K.T. Irnazarov, and M. I. Fetisov. (17-28)

They studied the problems of the formation of the development of the periodical press, audiovisual mass media, substantiated theoretical and practical problems of journalism of the region, studied the peculiarities of the creative heritage of well-known Kazakh, Uzbek, and other journalists.

These researches are carried out taking into account national interests and illustrate the stages of development of journalism in Central Asia of the twentieth century to this day. However, it should be noted that the authors did not have the task of special consideration of issues of national identity.

That is why the analysis of the role of the Kazakh press and Kazakh publicists in covering the issues of national identification and self-identification through the prism of the mass media is the first attempt in this kind. History teaches that social values cannot be outside a particular culture, outside of national subjectness and the national environment. They cannot be subordinated to the imperatives of national, and therefore, local, civilization life in history. This is also true, as well as the fact that all the modernization processes in history have always been fueled by the values of national identity has grown from the depths of the national spirit, culture, and history.

The Soviet model of the national state had a decisive influence on the formation and subsequent decisive deformation of the system of the Kazakh national press, as well as the coverage of issues of self-identification in it. Despite the complexity of historical conditions, Kazakh journalism and journalism of the Soviet period was able to identify the Kazakh ethnos from the standpoint of universal humanistic, rather than class and ideological values. The necessity of scientific comprehension of the accumulated material determines the relevance of this work.

2 Materials and Methods

The subject of this research is an integral part of the research projects of the theory and practice of journalism in the Republic of Kazakhstan and is included in the plans of research works of H.A. Yassawi International Kazakh-Turkish University.

Theoretical propositions, conclusions, and recommendations contained in the study can be used in the further study of the problems of media theory and practice, as well as issues of improving national policy, interethnic relations and the role of the press in developing the topic of national identification and national identity of the Kazakh people.

The materials of the study, its conclusions and recommendations can be used in preparing general and special courses on theory and practice of journalism in Kazakhstan, political science, history, and other social science disciplines. The results of the research can contribute to enhancing the scientific study of a number of issues of the development of national journalism, highlighting various problems of the state structure of the Republic of Kazakhstan.

The use of the materials of the study can also provide some assistance to journalists-practitioners in covering the problems of national policy, developing new ideas and approaches in covering the issues of national construction in the Republic of Kazakhstan.

The main research methods were theoretical analysis and synthesis, comparison and generalization, the study of the professional experience of journalists of newspapers and magazines, observation. In the scientific work, the following research methods were used to solve the set of tasks: general methods and techniques (analysis of publication of newspapers and magazines, on the problems of the republic's media, synthesis of abstraction, generalization, probability-statistical methods); methods of empirical research (observation, comparison, description, measurement); a systematic approach in conducting historical and philological and logical analysis, generalization and analysis of journalistic experience. The technique of experimental and experimental work was developed; the journalistic experiment was conducted; training and methodological support of the educational process of professional training of future journalists were developed, aimed at forming the creative abilities of future journalists and the competence of graduates.

The methodological basis of the work was the Constitution of the Republic of Kazakhstan, laws and normative acts of the Republic of Kazakhstan on the activities of the media. The theoretical basis of the study was the works of scholars of Kazakhstan and abroad on the history, theory, and practice of journalism.

Materials of the research are used in the educational process in the preparation of bachelor's and master's degrees in "Journalism" and "Political Science" at K.A. Yassawi International Kazakh-Turkish University, Al-Farabi Kazakh National University, Kyzylorda State University named after Korkyt-Ata and others.

3 Results and Discussion

In the 1950s, along with the whole country, a movement for the construction of cultural and educational institutions was launched on the resources of collective and state farms, as a result of which 1,048 clubs and cultural houses were built, 1,150 "red corners" and the Red Yurts were organized. The librarianship also received active development: new public and mobile libraries, book-issuing points, etc. appeared.

Against this backdrop of the growth of the educational and cultural level of the Kazakh population, popular poetic creativity continued to develop, which always played a special role in educating the national feelings of the Kazakh people. Since ancient Kazakhs - both old and young - gathered in the evenings near their akyns (poets) and listened to their song stories about the past, about heroes, about good, evil, rituals, traditions, etc. Especially popular were songs of heroic and historical content, ritual, every day and labor songs. They reflect different aspects of Kazakh life, their ideas about nature, society, and man. Different genres, these songs occupy a central place in Kazakh folklore and are the basis of many forms of literary creativity.

In this regard, we recall that the Kazakh folk song originated in the 15th century along with the heroic epic. In these folk songs, the true events are told, their exact place and time are mentioned, the people who participated in them are mentioned. A kind of genre in which people kept the memory of long-gone generations, also genealogical legends of Shezhire (a family tree), which contained a story about the origin of the Kazakh people, its tribes, their connections, and migrations, which was his unwritten history.

It is difficult to overestimate the artistic value of all this folk art. It contains instructions and teachings, which are presented in a bright and imaginative form, facilitating their memorization and giving them credibility. It played a huge role in the education of

the Kazakhs and the formation of their national consciousness and mentality.

It should be specially noted that in the postwar period, the development of Kazakh literature began to develop actively. In particular, the "Creative Biography of Abai", "The Kazakh Epic and the History of Literature", "Kazakh Democratic Writers of the Early Twentieth Century", "Essays on the History of Kazakh Pre-Revolutionary Literature" and others were published.

All of this as a whole created a foundation that allowed the Kazakh people to become more aware of their own characteristics, their own identity, and national traits. Therefore, it is understandable that the Kazakh intelligentsia aspires to comprehend the role of the well-known personalities of its people in its fate and history. Moreover, the ideological taboos that were introduced in the 1930s during the war years were removed and their names were used by official propaganda, and images of great ancestors inspired the Kazakh people in the fight against fascism.

But in August 1945, the Central Committee of the Communist Party (Bolsheviks) of Kazakhstan adopted a resolution, which referred to the need to correct the mistakes contained in the first generalizing work on the history of the Kazakh SSR from ancient times to the beginning of the Great Patriotic War, written and published in 1943, The prominent Soviet historians evacuated to the republic took an active part. The resolution specifically noted that it is necessary to avoid the idealization of the past.

By the end of the 1940s, the command and administrative system in the USSR was already actively managing the literary and directing the literary process in the right direction for itself. So, in 1949, a decade of Kazakh literature was held in Moscow and in 1954 the 3rd Congress of Writers of Kazakhstan. At these forums it was once again pointed out that the republic's literature should develop based on the Marxist-Leninist methodology and guided by the principles of party spirit and nationality, using the method of socialist realism.

In the second half of the 1940s and in the 1950s, a number of prose works were created, including the second (1947), the third (1952) and fourth (1956) books of M. Auezov's novel "Abai's way", S. Mukanov's novels "Syr-Darya", G. Mustafin's "Millionaire" and "Karaganda", G. Musrepov's "Awakened Land" and others. Particularly intensively developed during this period were such genres as a novel and a story.

Naturally, in all these works, the communist idea was a red "thread", the fidelity of socialist ideology was asserted, the triumph of Lenin's national policy, the achievements of the Soviet government in building a new life, how the life of the Kazakh people was being transformed, etc., was narrated. Officials from literature strictly monitored the "purity" of writers' thoughts; therefore, one cannot speak of any kind of independence and freedom, except for the party-class approach in reflecting reality.

At the same time, after the victory in the war with a new force, they began to talk about the leading role of the Russian people in the life of the Soviet state. To a certain extent, no one denied his leadership, but when statements were made about equality and friendship between the people of a multinational country, against this background this began to sound a certain dissonance. At the same time, many functionaries from among the local nomenclature and this sought to wrap in favor of their own career growth (1945). And all those who fought in the past or had an armed clash with him were ranked as those who should not enjoy the respect of their people.

The well-known bi (the head of the tribe), commander, and statesman Yedige (14th-15th cc.), who fought against the Khan of the Golden Horde Tokhtamysh, who is prominent in the galaxy of outstanding sons of the Kazakh people, got into this list. In 1409 he surrounded his army in Moscow and collected a tribute from it. These actions were regarded as hostile to the

Russian people. As a result, the dastan (poem) "Yedige batyr" ("Brave Yedige"), esteemed by the Kazakh people, was forbidden to read for centuries. In turn, the fighters for the liberation of Kazakhstan from tsarist Russia Kenesary, Nauryzbai and their followers, oddly enough, were declared monarchists.

It was exposed at a closed meeting of the Central Committee of the Communist Party ("Bolsheviks") of Kazakhstan on October 23, 1951, at which Academician Kanysh Satbayev was accused of idealizing the stranger heroes to the people and in that he did not recognize after 1945 the fallacy of the legend about Yedige that was published in 1927 under his editorship and with his preface.

A special reluctance by the Soviet-Party nomenclature of the national heroes of Kazakhstan, as well as of other republics, began to manifest itself as a result of the fact that the CPSU proclaimed the thesis about the formation of a "new historical community of people - the Soviet people". In this connection, the mention of the national heroes of the past has become appreciated by the ideologists of the Soviet system as a manifestation of national limitations and the desire to elevate their people over others. If before the names of famous people - Yedige, Kenesary, and others - could appear in published poems, fiction, scientific works, now they were mentioned only on the occasion of any significant dates and as characters from legends rather than from the history of Kazakhs.

The Communist Party firmly held the country and the life of the people in its hands and carried out economic and social transformations at its own discretion and understanding. Despite the fact that in the 1950s they were very ambitious, however, the main drawback of the party, which did not adequately assess the consequences of its activities, was also manifested here.

Especially brilliant in this field is N.S. Khrushchev. Being a man not only very energetic but also uneducated, he relied on his peasant intuition in all matters, did not like it when he was objected and vigorously manifested his discontent, if something was not how he wanted or understood. For him, the main thing was to transform, reorganize, and change everything radically. And the ideological tool, which is obedient to this work - literature, art, journalism - was already available to him.

Therefore, when the decision was made to develop virgin and fallow lands of Kazakhstan, the huge journalistic army of the Soviet Union started talking about what it would give to the country and Kazakhstan, how the life of the Great Steppe would change, but no one thought about what it all could lead, what troubles it can turn out for the Kazakh people.

The development of virgin lands left its imprint on the development of national consciousness and the self-identification of the Kazakh people. On the one hand, the development of virgin lands not only stimulated social transformations in the republic, gave life to new, previously unripe areas, but also ensured a large increase in the production of grain, meat, milk, wool, etc. But on the other hand, these obvious, seemingly, the benefits turned out to be a problem for the Kazakh people, which grew up to the national one. It was expressed, first of all, in the fact that the number of Kazakhs became less than half the population of the republic. In addition, for centuries cultivated cattle and nomadic way of life, the Kazakh people had to move to a settled way of life.

It is not necessary to be a psychologist to understand the obvious: a blow was struck at the national self-awareness of the people. A huge mass of people, deprived of the usual forms of existence, had to learn from others now. Researchers in the field of social psychology have long established the existence of varying degrees of gravitation of individuals of different nationalities to specific types of industrial activity. This can be explained by the fact that it is affected by the natural environment, the availability of minerals, and climate, and social, economic, scientific development, and the historical past.

All this is postponed both in the consciousness of the people and in its genetic memory.

However, it does not follow from this that there is some kind of predetermination in this matter and that, according to Bromley and Shkoratin (29). For example, Koreans gravitate to gardening and cultivation of onions. Do not be wise to understand that this is their "attraction" in the years of repression was almost the only possible activity for them. Similarly, one should not blame the Kazakhs for being apathetic and negligent in work other than livestock.

Probably from the point of view of the Latvian, the Ukrainian, the Belorussian, the German, etc., it is an undoubted blessing. Nevertheless, for the Kazakh this was tantamount to violence, for him, it is like a person who values his freedom, is condemned to life imprisonment. It remains to judge and judge: whether it is good or evil. After all, the solution of the national question is expressed not only in the alignment of parallel structures but in enabling each nation to live in the way it wants.

Turning to what is written in Leonid Brezhnev's book "Virgin Lands," it states that "the Kazakhs in general, overwhelmingly, met with enthusiasm and approval the party's decision to plow the feather grass steppes." (30) And further, it notes, "The rise of virgin lands for the Kazakhs was a difficult task, because for many centuries the Kazakh people were associated with cattle breeding, and here many and many had to break all the old way of life in the steppes, become grain growers, machine operators, specialists in grain farming." (30)

The development of virgin lands became a difficult stage in the life of the Kazakh people. In the period of 1954-1960, in the republic, 25 million 484 thousand hectares of land were put into an agricultural turnover. In the Kazakh steppe, about two million people settled. A new type of inhabitants was formed, a new generation appeared - virgin lands. Basically, it is Russians, Ukrainians, and some others. They deeply let the roots in here, along with the Kazakhs felt themselves the owners of this land.

The writer and publicist A. Zhaksybayev (31) writes that the development of lands was very expensive for the Kazakhs. It was impossible to resist this process. In these areas the Russian language began to predominate, the radius of the Kazakh language narrowed. One after another Kazakh schools were closed. Local residents were forced to send their children to Russian schools. In the five northern regions all regional and district Kazakh newspapers were closed, only one newspaper, 'Tyn olkessi', was published in the local language.

The Kazakhs also participated in the virgin epic. They mastered their land, the land of their ancestors. In the beginning, it was difficult for them to find a common language with people who came from different parts of the USSR. All this changed the life of the Kazakhs. It did not do without the power of the authorities. The everyday, simple cares of local residents of the steppe acquired at times dramatic shades.

Meanwhile, the press of the Soviet Union and Kazakhstan widely covered the development of virgin and fallow lands of the republic. For example, in Komsomolskaya Pravda, a series of target strips dedicated to young virgin lands was published. In Pravda, an essay by I. Shukhov "Conquerors of Virgin Lands" was published. In it, the author, speaking of Soviet people as people of one fate, held the idea that they can conquer any heights and poles, accomplish military and labor feats. And now, on new lands, they, as at the front, are "in a comprehensive offensive to the virgin land in all 93 new state grain farms of Kazakhstan." (32)

In a number of virgin areas, where there were no publications of their own, district newspapers were established. So, if in the 1950s, 41 regional newspapers were created, then out of this number 32 of them began to come out directly with the beginning of the development of virgin lands. Only 3 of 32 editions were in Kazakh in 1981.

Together with the entire Soviet press, they talked about the labor enthusiasm of the virgin lands. In the newspapers were opened the headings "On virgin lands", "Letters of new settlers", etc. There were published materials, which talked about the labor of newcomers, about how they overcome difficulties and adversities. In order to strengthen the propaganda work and give the movement a wide scope, the press began using time-tested forms of mass work, such as on-site editorial offices, public correspondent points. Through the efforts of the editorial offices of the five republic-level newspapers of Central Asia and Kazakhstan, combined numbers and exchange lines were being prepared.

The press disseminated the advanced experience of the foremost people in agriculture, mobilized the workers of agriculture and livestock farming for the early fulfillment of national economic plans. In a word, it once again in practice proved its indispensability as an effective ideological tool of the command and administrative system.

The virgin lands were given great attention to literary and art publications of Kazakhstan. Thus, in the republic-level journals "Zhuldyz" and "Prostor" appeared journalistic articles, essays by Kazakh writers and publicists S. Mukanov, I. Shukhov, M. Auezov, and others. Subsequently, the publishing houses of Kazmembas, Kazakstan, and others prepared and published collections of articles and essays "The Soviet Man is an Internationalist" (1963), "They are the Pride of Kazakhstan" (1960), "The Song of Life" (1961), "On the New Frontier" (1961) and many others.

The heroes of these works were different people who manifested themselves in a variety of situations. The main task facing the artists of the word was to show the heroism of work, to paint a picture of the steppe transforming by the efforts of the representatives of different people. And it must be said that writers and publicists did not spare their strength and talent to fulfill this, as it was said, party order.

An image of a Soviet man was created, which is determined to implement grandiose plans to conquer nature. But, as is known, when it is necessary to realize the installation and create a portrait of a contemporary, it is difficult to solve this problem without idealizing it. And here we have already used time-tested methods and methods of socialist realism—the search for a new man, the display of how his formation and growth takes place. And this is already impossible without its idealization, without the use of such a device as creating a halo of romance. This method is effectively used in his early literary works, such as "Makar Chudra", "Old Woman Izergil" and others still the founder of the method of socialist realism M. Gorky. Developing these traditions, Soviet writers continued to romanticize time and people. There was even a special term - the romance of everyday work.

On this basis, new myths were already being created, without which it was impossible to support their own party ideas and the enthusiasm of the masses. This emotional upsurge needed a constant recharge. And the mass media were called to transfer this energy to the masses. They found new heroes who successfully mastered virgin lands despite all adversities and difficulties. Especially a lot of material was given to reporters in 1955 when virgin soil tested people for strength. These publications, in which the creative workers of the editorial offices tried to put all their pathos and optimism, instilled in the virgin people a certainty that life would gradually improve, and that for this it was necessary to work and work without regretting the forces and time.

In new, not yet inhabited territories in most cases it was exactly so. And as a result, successes and achievements came about, which the press spoke about and widely propagated. But there were also failures. The media did not talk about them much, preferring to mention them casually and to talk about them as individual shortcomings. And the press did not say absolutely anything in cases when it was a question of obvious deception,

the desire to report on imaginary successes, to create the appearance of well-being.

The press did not say anything about the unrest that occurred in the republic in 1960 when rumors spread that the northern virgin lands would be cut off from Kazakhstan and transferred to the RSFSR. Whether the press could write something about this if the situation in the country had already deteriorated. The country was experiencing an acute shortage of food. Before the introduction of the card system, it is true, did not come, but in the early 60s, an acute deficit was almost all food products. People had to wait in huge queues for several hours until the stores brought bread, which was released strictly in accordance with the norm and bought up literally in 1 hour.

All this took place against the backdrop of events that began in the USSR after the Twentieth Congress of the CPSU. The wind of changes in the country began almost immediately after the death of Stalin since mid-1953. The person of L.P. Beria was arrested and then shot. People were returned from camps; ideological bonds were weakened. The departure from the Stalinist hard line certainly gave some positive results. Already the first adjustments to the spiritual and cultural policy of the country led to the revival of socio-political thought in Kazakhstan.

Measures were taken to eliminate the dictatorial methods of governing the country. The optimization of the dominant social system, initiated from above, and the expansion of "socialist democracy," led to the manifestation of activity on the part of society. And, first of all, on the part of the intelligentsia, including the creative one in the republic, attempts were made to correct the excesses committed in previous years, when a number of writers, scientists, and journalists were accused of propagating bourgeois nationalism, idealizing the past of the feudal-patriotic society, etc.

So, the writer M.O. Auezov, and academician K.I. Satpayev returned to Kazakhstan, who were forced to leave the republic after the decision of the Central Committee of the Communist Party of Kazakhstan "On the mistakes of the Institute of Language and Literature" was adopted and some scholars began to criticize everything, which was related to the pre-revolutionary past of Kazakhstan and those who spoke about it. At that time, M. Auezov's novels "Abai", "Abai's way" for allegedly embellishing and idealizing aul-nomadic life in them, the propaganda of "anti-Russian, reactionary-conservative and Pan-Turkic views of the patriarchal past" were subjected to sharp attacks. It even went so far that in the Bulletin of the Academy of Sciences of the Kazakh SSR an article by S.N. Nurusev was published "The eradication of bourgeois nationalist distortions in the study of Abai's works," in which he wrote: "M. Auezov was subversive in the field of artistic literature and literary criticism. He idealized the past, praising the leaders of the Alash-horde, slandered Soviet reality, preached hatred for the great Russian people and reached direct attacks against Soviet power." (33)

In a campaign against the writer and others who spoke in his defense, the tone was set by the press, which directed the criticism of flaws, in ideological work, not on improving the case, but on "beating" one or another person ..." As a result, the republic was forced to leave the academician K.I. Satpayev, who was subjected to persecution, who wrote about the novel "The Way of Abai": "In the breadth of the circle of topics, depth and skill of their artistic development, the novel represents an exceptional phenomenon in the literature of the revived Kazakh people and law occupies an outstanding position in the literature of the Soviet Union people." (34, 35)

But ironically, it was the Russian writers A.A. Fadeev, N.S. Tikhonov, L.S. Sobolev, B. Gorbato, V.V. Ivanov and some others who helped the Russian writer to avoid reprisals against M. Auezov. He settled in Moscow, where he worked at the philological faculty of Moscow State University and taught the literature of the USSR people. As Leonid Brezhnev (30) writes in the book "Virgin Lands", this forced stay outside the republic

was the result of actions "imposed by some demagoguery" in his will to "look, as they say, holier than the pope."

Attacks were not only individuals but also a whole literary trend. So, in the 50s, there were discussions about the origin of the Kazakh epic. At the time, the opinion was expressed that not all works of oral folk art correspond to socialist ideology and therefore are of an antinational nature. In a memorandum to the department of fiction and art of the Central Committee of the Communist Party of Kazakhstan it was noted: "The purpose of the discussion is to determine the historical character, ideological essence and artistic merit of the Kazakh heroic and social epics; resolution of the most controversial issues in this field of literary criticism; demarcation of popular and antinational variants of poems."

Therefore, it was intended to hold discussions among a broad scientific community with the participation of scientists and Soviet-Party workers from Moscow, Leningrad, Tashkent, and Frunze. However, the exchange of views was replaced by an indiscriminate criticism of those whose position differed from the official party point of view. As a result of these "scientific discussions", the Kazakh epic was divided into "reactionary" and "people's". It was resolved to consider the poems "Yedige", "Orak and Mamai", "Shora Batyr", "Bazar Batyr", "Er-Sain" reactionary, and the assessments were given to them in the works of M. Auezov, A. Margulan, B. Kenzhebayev, S. Mukanov, and others to recognize them non-Marxist and deeply erroneous. People consider the poems Alpamys, Er-Targin, Koblandy-batyr, Kambar Batyr, Kozy Korpesh and Bayan-sulu.

Of course, not everyone in Kazakhstan thoughtlessly and uncomplainingly followed these party lines. Among the Kazakh intelligentsia were those who defended the preservation of national identity and its manifestation in the way of life of their ethnic group. But such position ran counter to the idea that culture, art, literature, and all life should be national only in form, and in content-socialist. It was in this way that the Soviet system strove to introduce the communist worldview everywhere, to change the mentality and people way of life. It is necessary to transform the national spiritual principle, to contain and suppress in them the free manifestation of national self-awareness and national thinking.

This was necessary to achieve the main goal - to level out all national differences already in the most vital way of the people. The Soviet state, in fact, was a multinational state only in composition, but it was not so in its policy. Any desire to preserve national identity was seen as an attempt to isolate itself. And the party leadership interpreted it as a manifestation of nationalism. The ideological basis of this policy was the officially adopted idea of a single Soviet people, within which there should not be national differences.

This policy was carried out in Kazakhstan. There were objective reasons for this: as Leonid Brezhnev (30) writes, in the second half of the 1950s huge masses of people moved to the republic, multinational collectives developed, which could not fail to put before the state and society an alternative - or create conditions for preservation of national identity, or create a unified new community. And Kazakhstan became a republic that began to move in this direction.

The Kazakh intelligentsia in those years thought about the need to create prints that would go beyond the strictly socio-political press. This periodical would allow us to comprehend the life processes with artistic, journalistic and satirical means. Many representatives of national literature and journalism have repeatedly talked about this and in the second half of the 1950s, new journals appeared-the satirical Ara-Shmel, the children's Baldyrgan.

The task of the monthly satirical magazine "Ara" - "Shmel", which began to be published since March 1956 in Kazakh and Russian, was the struggle against the plunderers of socialist property, with liars and swindlers, bribe-takers, bureaucrats, careerists. The magazine regularly published feuilletons, satirical

stories, and cartoons. The mastery of such satirists as S. Adambekov, O. Aubakirov, Zh. Altaibaev, S. Kenzhekhmetov, K. Iliayev, and others grew in the journal.

A major role in children's upbringing was played by the republic-level magazine Baldyrgan, which began to be published since July 1958. It printed stories and poems in the Kazakh language. There were many materials devoted to the native land, its nature, and the animal world. The magazine was supposed to instill in children love for the motherland, nurture in them the feeling of the native language. These publications - each depending on their specifics - influenced the formation or growth of national identity.

The Communist Party observed very closely how the republic's press development is developing, what its pages are full of, what their ideological content is. Overstepping the boundaries of party institutions immediately found a strict assessment by the governing bodies.

This was the result and consequence of the policy pursued by NS Khrushchev. On his instructions, the ideologists of the CPSU, headed by Mikhail Suslov, were engaged in developing a program for the "prosperity and convergence of nations." Today, many political scientists, speaking about it, say that the "flowering" meant inculcating Russian culture to non-Russian people, and "rapprochement" means their merging. His ideas, NS Khrushchev, many of which were later, after his removal from power, were assessed as a manifestation of voluntarism and subjectivism and consolidated in the Third Program of the CPSU, which specified the specific time frame for building communism in the USSR. About that it was pure water utopia, people whispered and then. At present, there is no need to prove all the contrariness of these plans - life itself has proved this. But in the late 1950s - early 1960s, the party apparatus seriously engaged in their implementation.

Now it is impossible to answer the question: did the first person of the state realize the absurdity of his programs or not. After all, more or less sane person understood that his ideas not only did not eliminate contradictions, the solution of which provides development, but, on the contrary, creates them. He called specific deadlines, but could not specifically answer a specific question: how? For example, speaking of a new social community-the Soviet people-he asserted that a single communist nation would grow out of it, but when and how it would happen, he could not say anything concrete. The main slogan of that time was: "The Soviet people are the builder of communism."

The Soviet-Party press, declaring the ethnicity self-worth, in fact unconsciously sought to level them. This was especially manifested during the periods of the accomplishment of significant events. For example, the development of virgin land, the World Youth Festival in Moscow in 1957, the launch of the world's first artificial earth satellite, Yuri Gagarin's flight into space, etc.

However, the growth of the national consciousness of all nations and nationalities of the Soviet Union forced people to think about what it is - the "flowering and convergence of nations"? And the conclusions of many intellectuals from the republics were directly opposed to the Party's program settings. It must be stressed here that representatives of the intelligentsia of different nationalities never denied all the positive things that their people achieved through cooperation and mutual assistance, but none of them agreed or supported the idea of a "full merger of nations", which essentially means assimilation, absorption by the more numerous nation of others.

Therefore, the Soviet-Party press, she realized it or not, was talking about the flowering of nations, about the growth of their economy, their achievements in science and culture, nurtured in them a sense of national dignity, reflected on their national identity, helped identify themselves. And this meant that the idea of creating a communist super nation could never be realized.

Thus, the period when N.S. Khrushchev headed the state, which by the end of his reign was called the great decade, was woven from contradictions, questionable experiments in all spheres of life - industry, agriculture, culture, art, literature. According to our opinion, the only thing that can rightly be attributed to him is the exposure of Stalin's tyranny and the restoration of relative democracy and freedom, thanks to which this historical segment was defined as the "thaw" time.

However, at the same time, the Soviet system imposed a uniform standard on all people and all cultures. This unification has acquired such character that small people have almost completely lost their ethnic identity and divorced from the roots of their culture, turning into a faceless mass of the Soviet people. It is clear that such "internationalism" did not suit other nations, including the Kazakh, for which the processes of the 1950s and early 1960s created a threatening situation in its national development: it became a minority in its national and state education, and above him hung the threat of slow assimilation.

4 Conclusion

The existence of nations and national states causes the presence of the powers threatening their independence and freedom, striving to control them and using their national wealth for their own benefit. That's why the Kazakhstan Mass Media in order to provide further development of the sovereign state - the Republic of Kazakhstan - should significantly enhance mental awareness-building, develop in the citizen's firm will and conviction in the holiness of the independence of the state which may ensure the progress of the Kazakh ethnos.

The multinational composition of the Kazakh society implies the possibility of the emergence of interethnic contradictions. They should not advance into international dissension and conflicts. In this issue, a special role by the printed media is played. It was called upon to deliberately approach the issues of international relations, consider them as one of the most significant factors of sustainable development and prosperity.

Approval of journalism as 'the fourth estate' greatly depends on its interrelation with the other branches of government. With these purposes, it is necessary to start the operation of the Mass Media Community Council at the President of the Republic of Kazakhstan on a regular basis. It should be supposed to govern by the best interests of the nation but not to be a place where people accuse each other.

For national conscience and identity, a great role is played by the national language. Its loss will inevitably lead to the threat of losing the national identity. Development of the Kazakh independent state created all the conditions necessary for its development. The press takes an active part in this process. The quality of the Kazakh language print media should be further increased and its thematic should be diversified in order to ensure its competitiveness with the Russia language print media of Kazakhstan and Russia.

The journalism of Kazakhstan is called upon to actively discussing the problems cramping the consolidation of the sense of community, national and state identity. At that, one should find the most reasonable ways for unifying people, for the formation of their sense of the common goals and interests of all the people living in the Republic of Kazakhstan.

It is necessary to understand that state identity is an important factor and catalyst of development of national self-conscience and national identity. It is not less important for the print media to develop respect towards the national identity of the other people alongside with the coverage of the issues connected with the national identity of the Kazakhs.

In the journalistic declarations of the Kazakh print media over the researched period one may observe the dynamics and evolution in the development of the article themes. The perspective and position of the authors towards this issue at each stage of development of the Kazakh journalism underwent

changes which provided an opportunity to better understanding and comprehension by the Kazakh people of their national identity and their place in the world community.

Despite the difficulties of the current periods, the Kazakhstan journalism experiencing rises and declines has accumulated rich positive experience which provides it with the opportunity to function quite efficiently and comply with the modern standards. It is still popular among the mass audience.

The transformation of media text into the Internet significantly changes its structure. This leads to the emergence of completely new formats of presentation of information, the priority place among which is the genre of "multimedia article". This young and very voluminous genre embodies all the existing expressive possibilities of journalism, unites the efforts of a whole team of universal journalists, is created through the latest information technologies, increasing the value and effectiveness of information for a modern active audience. The effectiveness and necessity of implementing a multimedia article for any convergent edition are obvious. This is to strengthen and develop the topic of national identity and national identity of the relevance of multimedia journalism.

Literature:

1. Huntington S. *The Clash of Civilizations and the Remaking of World Order*. Moscow: ACT; 2003.
2. Shukman H. *The Russian Revolution. 1891-1924*. London: Pimliko; 1997.
3. Arendt H. *The Origins of Totalitarianism*. HBJ; 1979.
4. Berlin I. *Russian Thinkers*. London: Penguin Books; 1979.
5. d'Agostino A. *Soviet succession Struggles. Kremlinology and the Russian Question from Lenin to Gorbachev*. Boston; 1988a.
6. d'Agostino A. *Emerging from Communism. Lessons from Russia, China and Eastern Europe*. Cambridge: The MIT Press; 1988.
7. Pipes R. History, socialism and reconstruction about Russian. Russia under the new regime. *Dialogue*. 1991; 5:71-83.
8. Brzezinski, Z. B. (1988). A great failure. The birth and death of communism in the twentieth century. Moscow: Mezhdunarodnyye otnosheniya.
9. Brzezinski ZB. *He's the same. Great chess board. Dominance of America and its geostrategic imperatives*. Moscow: Mezhdunarodnyye otnosheniya; 1999.
10. Avtorkhanov A. *Empire of the Kremlin. Soviet type of colonialism*. West Germany: Prometheus-Ferlak; 1988.
11. Zhelev J. Fascism. The totalitarian power. *Dialogue*. 1991; 6:31-42.
12. Tucker R. *Stalin. The way to power. 1879-1929. History and personality*. Moscow: Progres; 1991.
13. Carr EH. *The Russian Revolution from Lenin to Stalin. 1917-1929*. Moscow: Inter-Verso; 1990.
14. Brutskus BD. *Socialist economy. Theoretical thoughts about the Russian experience*. Paris: Quest; 1988.
15. Shendel W, Zurcher E. *Identity Politics in Central Asia and the Muslim World. Nationalism, Ethnicity and labor in 20 Century*. New York: I.R. TAURIS Publishers; 2001.
16. Roy O. *The New Central Asia. The Creation of Nations*. New York; 2000.
17. Amandosov TS. *Modern Kazakh journalism*. Almaty; 1987.
18. Bekkhozin H. *History of Kazakh publication*. Almaty: Mektep; 1976.
19. Yernazarov T, Akbarov AI. *History of Turkestan (1870-1925)*. Tashkent: Ukutuvchi; 1976.
20. Kenzhebayev B, Kozhakeyev T. *Essays of Kazakh publication*. Almaty; 1950.
21. Barmankulov MK. *The art of modern information*. Almaty; 1994.
22. Kozybayev SK, Matviyenko SS. *Essays on the history of journalism in Kazakhstan*. Almaty: Kazakhstan; 1988.
23. Allabergenov K. *History of the Kazakh periodical press (1870-2010)*. Pavlodar; 2010.

24. Nurgozhina SI. *Economic press of Kazakhstan: theory and practice of functioning, development trends*. Tashkent: UzNU of Uzbekistan.
25. Sadykov S. *Coverage of issues of national identification and national identity in Kazakhstan's print press (historical, philological and methodological aspects)*. Tashkent; 2012.
26. Sadykov S. The Kazakhs. *Problems of national identification and national identity in the press of Kazakhstan International Publishing*. Saarbrücken: Palmarium Academic Publishing; 2014.
27. Imnazarov KT. Press and interethnic relations: criticism of the stereotypes of totalitarianism, analysis of the policy of independent development. Tashkent: NU Uz; 2004.
28. Fetisov MI. *The origin of Kazakh publicism*. Almaty: KGIHL; 1961.
29. Bromley YV, Shkoratin OI. National labor traditions - an important factor in the intensification of production. *Sotsiologicheskie issledovaniya*. n.d.; 2.
30. Brezhnev L. *Virgin Lands*. Moscow: Politizdat.
31. Zhaksybayev A. *March. Truth and politics*. Kazakh Literature; 1994.
32. Shukhov I. *The virgin land-givers*. Pravda; 1954.
33. Nurushev SN. Iskoreneniye burzhua-znatsionalisticheskikh perekosov v izuchenii tvorchestva Abaya [The eradication of bourgeois nationalist distortions in the study of Abai's works]. *Vestnik akademii nauk KSSR*. 1953; 4.
34. Satpayev KI. Without fault, am I guilty? *Kazakhstanskaya komuna*. 1989a; 9:74-80.
35. Satpayev KI. *Selected works*. Alma-Ata; 1989.

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HIGHLIGHTING OF ISSUES OF NATIONAL IDENTIFICATION IN THE KAZAKHSTAN PRESS OF THE LATE-SOVIET PERIOD

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Abstract: By the mid-1980s, in the USSR, due to various objective and subjective factors, a situation was formed in which the accumulated unresolved problems led to such negative phenomena as the loss of economic development rates. Social corrosion and deformation of the system indicated that the country is in a pre-crisis state. The indifference of the center to the national identity, the unsettledness of many problems of the development of the nation was reflected in the national consciousness, giving rise to feelings of resentment for their people. This created the ground for aggravation of the accumulated contradictions and acquired an explosive character. Despite the fact that there have been cases of aggravation of interethnic relations in the country, in this sphere, only phrases and substitution of real problems by their vanishing and retouching of realities prevailed for many years. Together with thought out actions are schemes that barely held back the pressure of life. And when in the years of perestroika, the pressure on them increased significantly, they burst.

Keywords: deformation, perestroika, national issue, Alma-Ata events, national identities, ideological labels, central newspapers, Kazakh press, acceleration, democratization, glasnost, pluralism of opinions.

1 Introduction

The search for a national identity is especially evident in the activities of such a socio-political institution as journalism. It has not only played an important role in the development of national identity since its inception and up to the present, but it is also its product. The specificity of journalism lies in the fact that it is constantly in the midst of these processes, it is also the registrar of the most important events in the life of the ethnos, expresses to them the attitude, assesses them, influences the development of its language, culture, economy, politics, and art.

National identity nourishes the life of any community of people, which turns it into a national community. Without a self, the nation cannot set conscious goals, coordinate its actions and aspirations. In general, the problem of one's own identity has existed since ancient times, always worried and worried people, regardless of the conditions of the social system in which they are.

The recognition of their own national identity by the Kazakh people was historically formed under the conditions of Kazakhs joining both the Russian and Soviet empires, when in the recent past an attempt was made to artificially create a "new historical community - the Soviet people", which, in our view, could no longer be crowned with success. The aspirations of the administrative planting of the "new historical community - the Soviet people" could not undermine the national feelings of people, did not eliminate ethnic self-identification. From birth, from the first lullabies, a person begins to feel like Kazakh, Russian, Ukrainian, Georgian, and Uzbek. And this feeling cannot be knocked out, no matter what caliber of ideological shells.

Journalism as a unique institution raises and considers various aspects of the problem of national identity, topical issues of interethnic relations. In different periods of ethnos development, she changed methods and approaches to the development of this topic. And in this regard, she has accumulated a wealth of experience. The necessity of scientific comprehension of the accumulated theoretical and empirical material determines the relevance of the topic of the given article.

The problems of national development have long attracted the attention of foreign and high-quality social scientists. A large amount of information on the topic of this article contains research by foreign scientists. For example, in the works of H. Arendt (1), A. D'Agostino (2), R. Pipes (3), S. Huntington (4), Z. Brzezinski (5-6), A. Avtorkhanov (7), Z. Zhelev (8), B.D. Brutskus (9), W. Shendel & E. Zurcher (10), O. Roy (11), and others critically comprehend the imperial essence of the Soviet state, its national doctrine, which amounted to assimilation small peoples to large, to leveling the ethnic identity of peoples and on the basis of Russification, to the forcible formation of a super nation of the Russian-Soviet type, the issues of nationalism and ethnic arrangements are being considered and in the context of the Islamic world in general, the life of the peoples of Central Asia after the dissolution of the ideocratic empire, in particular.

Certain information of interest is contained in the writings of scholars of Central Asia and Kazakhstan, working on the history and theory of journalistic science. So, for example, in the works of T.S. Amandosov (12), H.N. Bekhozhin (13), T.E. Ernazarov & A.I. Akbarov (14), B. Kenzhebaev & T. Zhozhakeev (15), M. K. Barmankulov (16), S. Sadykov (17), K.T. Imnazarov (18-19), and others studied the problems of the formation of the periodical press development, audiovisual media, and substantiated theoretical and practical problems of journalism in the region.

These studies were carried out considering national peculiarities and illustrate the stages of the development of journalism in the second half of the twentieth century, in the years of independence and made a definite contribution to the problem under study, but they did not specifically address issues of national identification and national identity in journalism.

In the article, an attempt was made for an integrated and systemic study of the coverage of issues of national identification and national identity of the Kazakh people in the press of Kazakhstan during the period of perestroika. The rethinking of the national question in the late Soviet period in the republic's press proceeded in parallel with the process of democratization of the society and facilitated the circulation of the periodical press of Kazakhstan to national values and the development of the process of national self-identification of the Kazakh people.

2 Materials and Methods

2.1. Methods of the research

The article relies on such scientific principles as integrity, objectivity, universality, concreteness, and historicism. The comparative-matching, analytical-synthesizing, and critical methods were used in the process of the research.

2.2. The methodological and theoretical basis of the article

The methodological basis of the work was the Constitution of the Republic of Kazakhstan, laws and normative acts of the Republic of Kazakhstan on the activities of the media. The theoretical basis of the study was the works of scholars of Kazakhstan and abroad on the history, theory, and practice of journalism.

2.3. The scientific and practical significance of the research results

Theoretical propositions, conclusions and recommendations contained in the articles can be used in the further study of the problems of the theory and practice of the media, as well as questions of improving national policy, interethnic relations and the role of the press in developing the topic of national identification and national identity of the Kazakh people.

The materials of the article, its conclusions and recommendations can be used in preparing general and special courses on the theory and practice of journalism in Kazakhstan, political science, history, and other social science disciplines. The results of the research can contribute to enhancing the scientific study of a number of issues of the development of national journalism, highlighting various problems of the state structure of the Republic of Kazakhstan.

The use of the materials of the article can also provide some assistance to journalists-practitioners in covering the problems of national policy, developing new ideas and approaches in covering the issues of national construction in the Republic of Kazakhstan.

The materials of the research are used in the educational process in the preparation of bachelor's and master's degrees in "Journalism" and "Political Science" at K.A. Yasawi International Kazakh-Turkish University, Al-Farabi Kazakh National University, and L. Gumilyev Eurasian National University.

Mikhail Gorbachev's coming to power in March 1985 was the beginning of the implementation of the tasks of modernizing the country. The April (1985) Plenum of the Central Committee of the CPSU determined the course for the renewal of Soviet society by fundamental transformations of all spheres of its life. The analytical work done by the country's leadership has led to the idea that fundamentally new approaches to solving the economic, social and spiritual problems of the social and political life of the Soviet state are needed. It was necessary to stimulate the activity of the working people, to ensure the development of all production in the direction of its intensification. Only in this way it was possible to give an impetus to the development of socialism in the USSR.

In one of his speeches, Mikhail Gorbachev noted that the leadership of the country did not immediately realize what rubble in the economy, politics, social sphere the national issue would have to shovel and what consequences this could lead to. But in his report to the nineteenth party conference, Mikhail Gorbachev (20) said in particular that, with regard to national policy, he had confidence that in this direction things are going without problems.

The alarm bell in the national politics and in the sphere of interethnic relations in the USSR was not all right in the first years of perestroika. But if the events related to student unrest in Yakutiya in 1985 went unnoticed by the press, the events of December 16-18, 1986 in Almaty, were widely publicized. If the Yakut events were primarily connected with social problems, then the Alma-Ata ones were of a national character.

And when the center, ignoring the whole nation, led N.V. Kolbin to the leadership of Kazakhstan a completely strange face to the republic, an explosion occurred. And in such a situation, when, as a result of an unjust and degrading decision of the people, tension grows, emotions take precedence and begins to deny everything, even good, that was in history.

Therefore, foreign media actively responded to them. The Kazakh researcher Narbin Kenzhegulova writes that the coverage of the Alma-Ata events by the foreign press was very quick and lively. First, there was a quick reaction to the event - giving facts almost without comment. This information was transmitted by all major world news agencies and many prints and audiovisual media. Then there were articles-comments and other materials, which contained an analysis of what had happened.

To a large extent, this also caused the Soviet press to pay close attention to them. The Alma-Ata events were a clear testimony to the increased national consciousness of the Kazakh people, who had already identified themselves as a nation that had all the attributes of independence and, in the framework of the Soviet Constitution, had the sovereignty to independently decide and

propose a candidate for the post of head of the republic from among the local specialists.

About these events, D.A. Kunayev (21) calls in his memoirs, to the individual, and not to the actions of which they are directly related. They to some extent shed light on the true background of the December riots. In the absence of a place, we bring his narrative with abbreviations. Here is what he writes:

"The resolution of the Central Committee of the CPSU" on the work of the Kazakh Republican Party Organization for the International and Patriotic Education of Workers stated that the CPC Central Committee and many party committees made serious mistakes in implementing decisions on the international and patriotic education of workers. (21)

The main reason for my withdrawal from the Central Committee of the CCP and the CPSU Central Committee was the December events of 1986 in Alma-Ata. On this occasion, a hasty and immature decision of the CPSU Central Committee was adopted. In Kazakhstan, there was no nationalism and a base for its emergence. Therefore, the resolution was not adopted and understood by the republic's public, because it not only biased the situation in Kazakhstan but also offended the Kazakh people.

This decision of the Central Committee of the CPSU in May 1990 under public pressure was removed from control. As the Commission of the CPSU Central Committee pointed out, "in the adopted resolution certain provisions and political assessments were essentially erroneous and the events that occurred were not a manifestation of Kazakh nationalism." The Central Committee of the CPSU officially acknowledged its mistake and an unjust accusation was lifted from the whole people.

For three years since the December events, the persecution of me and my relatives continued. To this end, dishonorable journalists, scientists, who wrote and wrote articles, were mobilized to do the same to blacken and trample down the history of their republic... ". (21)

The first information on the events on the main square of the republic appeared in the press only on December 19, 1986. This was a message from TASS, the country's main news agency, whose speeches were of the nature of an official state statement. Naturally, every word of these messages was coordinated with the highest echelons of power.

After some time, the journalists began to appear in the newspapers with their stories and their comments. The country's central newspapers were the first to publish the materials of their own correspondents in Kazakhstan. For example, Komsomolskaya Pravda, having published an article titled "A bitter lesson should be learned from the Komsomol activists of Kazakhstan, educators of youth", began to label labels in the "best traditions" of the Soviet press using established stamps and operating stereotypes, as, "the background of nationalistic youth becomes clearer", "the young people are excited by alcohol and drugs", "the trick of nationalistic elements received a worthy rebuff", "caused widespread outrage catching". (22) Speaking about the actions of law enforcement agencies, the newspaper wrote that they "tried and calmly tried to reason with the cleared youngsters" and concluded, "the roots of what happened... in serious omissions in ideological work, in the weakening of patriotic and international upbringing." Similar ideological labels and stamps were also present in the speeches of the newspapers "Pravda", "Izvestiya", "Trud", "Literaturnaya Gazeta" and others.

The materials indicated that in order to avoid the repetition of such phenomena in the future, special attention should be paid to ideological and political-educational work. And to do this on the example of the historical past of the Soviet country, at the various stages of development of which genuine mutual assistance and friendship between peoples were present. That is, the press did not talk about the true cause of the unrest - and it consisted in the fact that the indigenous population of the

republic did not perceive how the center decided the personal question of the leadership - but resorted to the already proven method of talking about indestructible brotherhood. By the way, the Kazakh people never opposed it, they simply believed that it should be reinforced by equality and not only in words but also in deeds. And most importantly, journalists could not or did not want to see the grown-up national consciousness and self-consciousness of the Kazakh ethnos.

Following the party establishment, the newspapers held the idea that events do not reflect the sentiments of the working people of Kazakhstan but are a trick of a small group of young people who were misled.

Here, in our opinion, it is necessary to emphasize that the idea of mistakes in implementing the tasks of international education of working people contained in the resolution of the CPSU Central Committee mentioned above should be understood as follows: if the actions of the people and the way of thinking are contrary to ideological attitudes, and in this case with the theory of national and international, it is the result of mistakes in educational work, and not that the theory is wrong. And no one thought about the fact that the theory itself may be mistaken if practice - the criterion for evaluating the correctness of the theory - gives the opposite result?

The theory, in our opinion, was built on upholding and ensuring the interests of the nomenclature. After all, if there is a complete fusion of the nation and national-state entities in the person of the union republics disappear, it will not only be easier to manage the country, the people, but it will also be easier to ensure their comfortable existence. It seems therefore that the deformations in the understanding of the essence of internationalism in the period of socialist construction were admitted consciously. They run counter to the idea of federalism, which was the essence of the formation of the USSR.

Even in the period of perestroika, when the activation of social thought was evident, and in the activity of the mass media, the rethinking of the history of the Soviet state was, within the framework of the "purification" of socialism, from mistakes allegedly committed by previous leaders, and not to renounce it.

As for the Alma-Ata events, at a meeting of the regional and city party members on December 18, 1986, the demonstrators were labeled "nationalists, extremists, drug addicts, and alcoholics." Later in the press, materials appeared that referred to the mafia, an underground nationalist organization, corrupt clans, and anti-perestroika forces. This cast a shadow on the entire republic, which had previously been promoted as a laboratory of friendship among nations, and now suddenly became a hotbed of nationalism.

So, the newspaper "Pravda" published the material of its own correspondent T. Esilbaev under the heading "Price of Narcissism". In it, commenting on the report of the newspaper "Evening Alma-Ata" about the beginning of the work of an educational institution for preschoolers, he emphasizes that the newspaper does not promote national isolation, saying that the education and upbringing here will be conducted in the Kazakh language, that it is still and the desire of the children themselves. (23)

The socio-political roots of the Alma-Ata events "are revealed" in Z. G. Golotvin (24) publications in the journal "Young Guard". In the article "What was behind the events in Alma-Ata?", he writes that this was the result of the weakening of control by the central state bodies and led to the fact that, first, clans united on the principle of blood relationship or belonging to a particular genus orjuz (clans); secondly, representatives of the local nationality began to receive more privileges; thirdly, a layer of Kazakh youth began to increase dramatically in universities. In his opinion, all of this led to the violation of the principle of the equality of nations in favor of the indigenous ethnos (24). And this, in turn, only strengthened such negative qualities of the Kazakhs as "protectionism" and "nationalism".

Unfortunately, the well-known Kazakh writer A. Alimzhanov (25) showed tendentiousness and one-sidedness in his article "What happened in Alma-Ata?", published in the "Literaturnaya Gazeta". Using propaganda techniques, he also reduces everything to the fact that events are the result of shortcomings in patriotic and international education, negative phenomena in the economy, personnel policy, etc. (25)

The following facts testify to what could follow from the framework outlined by the party bodies: in the Almaty-based regional newspapers "Zhetysu" and "Ogni Ala-Tau", an inter-republican newspaper in the Uighur language, Communism Tugi, a photo was published from the courtroom, where the case was examined over a group of participants in the December events. (26) This fact became the subject of discussion at the Bureau of the Central Committee of the Communist Party of Kazakhstan, the Almaty Regional Committee and the Frunze District Committee of the city of Alma-Ata. The appearance of this photo in the pages of newspapers was recognized as ideologically harmful and followed severe measures. The editors of these newspapers were accused of lacking due ideological hardening and low professionalism, apoliticalness, irresponsibility and they were expelled from the ranks of the CPSU.

The situation began to change after the 19th All-Union Party Conference, held in the summer of 1988. It stated that it was necessary to continue the course of perestroika but accelerating its pace. And for this, it is necessary to purify oneself of the deeper deformations in a socialist society, formed during the periods of the cult of personality and stagnation. They have for decades delayed its development, led to human, moral and ideological losses. The renovation of the country, as the participants of the party forum said, should be conducted in two directions. The first is an economic recovery, the second is broad democratization. The latter meant that this was possible only on condition of genuine democracy, ensuring the rights of the Soviet man, the social and moral responsibility of the authorities to society, which needed to be told the whole truth. Soviet social scientists-and here it must be emphasized that they did this with the permission of the party's top leadership and the country began to question the faithfulness of the Marxist-Leninist theory, or at least its suitability for modern society.

Discussion of these issues also took place in purely party publications. Thus, an acute polemic unfolded in the main theoretical organ of the party "Kazakhstan Communist". In A. Kalshabekov's article "Let's renounce Leninism" and in A. Aidossov's article "Defend Leninism", the authors, considering from their positions a whole series of questions, dwell on program provisions on the national question. If the first of them as though rushed in pursuit of "fried facts", the second tried to comprehend and purify the past and present Leninist teachings from stratifications and deformations. This controversy was the nature of the struggle between ideas and minds and divided society into radicals and conservatives (27). We do not state on whose side the truth is, but the very fact of the beginning of such a polemic, which quite clearly characterizes perestroika times, is significant.

The peculiarity of that period lies in the fact that whatever issues the press raises - professional, ethnonational, demographic, settlement - it aspired to present them on the one hand in the mainstream of perestroika politics, and on the other hand, using favorably lowered freedom, to denounce the system.

This is precisely what the Soviet press is beginning to do. And one of the first places is the issues of interethnic relations and national policy. The Soviet media began to talk about problems in this sphere without any embellishments or omissions. Although the attempt to renew socialism, to breathe new life into it, was not successful, and it was not possible to go from the authoritarian-bureaucratic regime to a democratic system within it, nevertheless, the main thing was that there was a breakthrough to openness and freedom of speech, which led to the rise of journalism. It became a catalyst for the independence of thought and ideological emancipation. Its speeches began to

evoke a wide public response. The policy of glasnost allowed the press to touch upon topics whose speeches were a blow to the foundations of totalitarianism and inevitably pushed it to disintegration.

"In the development of the ideas of perestroika," writes Professor Y.N. Zasursky, (28) the media played an outstanding role, which became the bearers of the concept of glasnost..." Publicity, democratization in politics, economy, and culture affected all strata of our society" and, naturally, forced on a new understanding "the importance of journalism in the life... of the people". (28)

"Glasnost is a declared war against the abyss of humiliation, - wrote Evtushenko (29) - Glasnost is a war for the social dignity of a person. Glasnost, like a "petrel of lightning like that," awakens the people's conscience of the people" C. Aitmatov (30) in his article "Do not Undermine the Fundamentals" stressed that glasnost is publicity for all that it is time to revive a genuinely democratic, popular way of life.

However, the widely publicized publicity turned out to be only a declaration for many spheres of state and public life, which began to affect the relations between the press and party bodies. The new political and economic thinking forced, even though the press, still functioning according to the principles of a one-party system, still find and objectively reflect numerous problems. But on the path of glasnost, there were decades of strength and tradition that cherished all sorts of taboos for the truthful reflection of events and facts, both past and present.

For Kazakhstan and its press, new political thinking meant the beginning of truthful coverage of not only the events of December 1986 but also the identification of the true reasons that prompted young people to enter the main square of the republic's capital.

The social and demographic development that has taken place in Kazakhstan in recent decades has changed the attitude of the indigenous population to the history of their people, their cultural values, and traditions. This was due to the fact that the ratio between Kazakhs and representatives of other peoples who migrated to the republic began to change in favor of the latter. This gave rise to a sense of apprehension among local ethnoses for the preservation of their national identity. The rapid mechanical growth of the population created interethnic tension.

Gradually, the tone and nature of the press's speeches on the problems of interethnic relations and national politics began to determine critical materials. Among them are the following articles and correspondence: M. Shakhnov "Our Common Values", (31) and "Bitter but Let's Tell the Truth", (32) V. Ardaev "A New Assessment of Events in Alma-Ata", (33) J. Korgasbek "Where is the evidence, who is the witness?" (34) and others.

In these publications, attempts are made to give an objective assessment of the December events. But in them, too, not immediately the authors were able to move away from the official position of the authorities. And only after in May 1990 a decision was adopted that recognized as erroneous and canceled the decision of July 16, 1987 "On the work of the Kazakh republican party organization for the international and patriotic education of workers", accusing the Kazakh people of nationalism, the press began to appear materials, which step by step recreated the true picture of events. It should be noted here that the very adoption of the decree was, to a certain extent, prepared by previous press speeches.

In them, the authors depart from the "chewing" and repetition of ideas about the international community of the Soviet people and begin to raise questions concerning the development of the Kazakh ethnoses. They pay attention to the features of demographic processes, the surplus of labor resources in agricultural regions and their shortage in the northern industrial regions of Kazakhstan. Concerning the problem of the effectiveness of the national economy, journalists drew attention

to its interdependence with such issues as the development of the principles of democracy, the strengthening of equality and social justice in relations between ethnic groups living in the republic. (33)

The forces of restructuring and glasnost demanded new approaches in understanding the situation in the sphere of interethnic relations, but this required first of all to reconstruct one's consciousness to the journalists themselves, to be cleansed of dogmas and habitual stereotypes. (34) First of all, it was necessary to abandon the thesis about the smoothness of national relations, the complete and final solution of the national question in the USSR, the achievement by its peoples of actual equality. The latter was mainly related to socio-economic development.

In this regard, the press began to note that along with culture and way of life, the socio-economic sphere also influences the development of national psychology and mentality of the ethnoses. At the same time, it was stressed that many acute issues put forward by the very development of the nation, did not find a timely solution. This gave rise to social dissatisfaction, which sometimes turned into interethnic conflicts.

Alma-Ata events were just the tip of the iceberg of interethnic relations. Its invisible part included many problems, journalists began to think about. A large amount of information began to appear on the pages of the press, which came from commissions engaged in the investigation of the December events. (31) In the aggregate, publications on national policies have become objective. That is, they not only talked about shortcomings but also ascertained achievements. However, the political conjuncture, the tone in which asked the deteriorating economic situation in the USSR every day, which led to a sharp drop in the standard of living of the people, marked a trend towards the fact that the denial of everything and everything, including the national policy of the party, began.

3 Results and Discussion

The press of each republic, including Kazakhstan, speaking about the identification parameters of its ethnoses, has already begun to isolate it, to say that it is in an embarrassing condition. About the Soviet people - as a new social community - have already been spoken with irony. In the national consciousness, the definitions given by Western Sovietologists began to be strengthened ever more firmly. So, more often speaking of the perception of the world around the Soviet people and the editorial staff, the journalist usage actively used the definition of "Soviet-style", "scoop". Against this background, the alternative to the "survival" of the ethnoses began to be the idea of the revival of national customs, traditions, and rituals. And from the point of view of the state structure is national sovereignty. The first step on this path was to give the status of the state language the title nation.

The lack of democratic traditions and the disintegrating moral foundations of society led to an influx of unpredictable passions, the provocation of interethnic conflicts. The situation was aggravated by the increase in crime. In this far from the simple situation, the mass media took an active position. After years of "silence," they seized the opportunity to speak. Almost every issue of Kazakh newspapers began to appear on painful topics. Moreover, the optimism of the first years of perestroika was replaced by pessimism. The processes of increasing inflation of the growing stagnation in the economy, ideological confusion and vacillation testified that hardly noticeable changes in the country will be achieved in the near future and that the slogans proclaimed by Mikhail Gorbachev - "Acceleration", "Development of democracy on a socialist basis", "More Socialism, More Democracy" and others - failed.

The press throughout the country, including Kazakhstan, began to talk more and more about expanding the powers of the Union republics and the need to renew the USSR. (32) But in this chorus voices were heard in favor of full sovereignty, with which the future of their ethnic groups was associated. And they began to sound louder and louder. The press, speaking of its people,

began to identify it as a nation self-sufficient for sovereign development.

The events of August 1991 led to the rapid actual disintegration of the Soviet Union. But Kazakhstan, however, was in no hurry and proclaimed its independence only two weeks before the legal end of the ideocratic superpower - the USSR. And it is deeply symbolic that the proclamation of Independence of Kazakhstan occurred on the same day when the Kazakh youth openly challenged the administrative and command system, the ultimate goal of which was a complete leveling of the nationalities of the country. December 16, 1991, was the day when a new national and truly sovereign state was born - the Republic of Kazakhstan.

The Soviet Union, with its cumbersome economy and the military-industrial complex, failed to adapt to the post-industrial society. It could not change with the changing world - and it did not have a place in it. But it was a transformation focused on the political system in the first place. Economic reform was put on the second plan. As a result, the economic crisis led to the collapse of a huge state. Together with him, the press of a totalitarian society also ceased to exist. It was replaced by the media, which, adhering to democratic guidelines, began to approach the issues of national identity in a new way.

4 Conclusion

There are the following main conclusions of the study:

1. Mass Media of Kazakhstan in order to provide further development of the sovereign state - the Republic of Kazakhstan - should significantly enhance mental awareness-building, develop in the citizens firm will and conviction in the holiness of the independence of the state which may ensure the progress of the Kazakh ethnos.
2. The multinational composition of the Kazakh society implies the possibility of the emergence of interethnic contradictions. They should not develop into international dissensions and conflicts. In this issue, a special role is played by the printed media. It was called upon to deliberately approach the issues of international relations, consider them as one of the most significant factors of sustainable development and prosperity.
3. The journalism of Kazakhstan is called upon to actively discussing the problems cramping the consolidation of the sense of community, national and state identity. At that, one should find the most reasonable ways of unifying people, for the formation of their sense of the common goals and interests of all the peoples living in the Republic of Kazakhstan.
4. In the journalistic declarations of the Kazakh print media over the researched period one may observe the dynamics and evolution in the development of the article themes. The perspective position of the authors towards this issue at each stage of development of the Kazakh journalism underwent changes which provided an opportunity to better understanding and comprehension by the Kazakh people of their national identity and their place in the world community.
5. Despite the difficulties of the current periods, the Kazakhstan journalism experiencing rises and declines has accumulated rich positive experience which provides it with the opportunity to function quite efficiently and comply with the modern standards. It is still popular among the mass audience.

Literature:

1. Arendt H. The origins of Totalitarianism. London: Harcourt, Brace & World; 1979.
2. D'Agostino A. Soviet succession struggles: Kremlinology and the Russian Question from Lenin to Gorbachev. USA: Boston; 1988.
3. Pipes R. On Russian history, socialism and perestroika, Russia under the new regime. Dialogue. 1991; 5:71-83.

4. Huntington S. The clash of civilizations and the transformation of the world order. Moscow: AST, (The Clash of Civilizations and the Remaking of World Order; 1996); 2003.
5. Brzezinski ZB. A great failure. The birth and death of communism in the twentieth century. Moscow: International relations; 1988.
6. Brzezinski ZB. Great chessboard. Domination of America and its geostrategic imperatives. Moscow: Mezhdunarodnye otnosheniya; 1999.
7. Avtorkhanov A. Empire of the Kremlin. Soviet type of colonialism. West Germany: Prometheus-Ferlak; 1988.
8. Zhelev Z. Fascism. Totalitarian Power. Dialogue. 1991; 6:31-42.
9. Brutskus BD. Socialist economy. Theoretically, if the Russian experiment was conducted. Paris: Quest; 1988.
10. Shendel W, Zurcher E. Identity politics in Central Asia and the Muslim world. Nationalism, ethnicity and labor in tweeting century. USA, New York: I.R TAURIS Publishers; 2001.
11. Roy O. The New Central Asia. The Creation of Nations. USA, New York; 2000.
12. Amandosov TS. Modern Kazakh journalism [dissertation]. [Almaty]; 1987.
13. Bekhozhin HN. The history of the Kazakh journalism. Almaty: Mektep; 1976.
14. Ernazarov ET, Akbarov AI. History of Turkestan (1870-1925). Turkestan: Ukutuvchi; 1976.
15. Kenzhebaev B, Zhodzhaev T. Feature article of the history of the Kazakh journalism. Almaty; 1950.
16. Barmankulov MK. The art of modern information. Almaty, Kazakhstan; 1994.
17. Sadykov S. Coverage of issues of national identification and national identity in Kazakhstan's print press (historical, philological and methodological aspects) [dissertation]. [Tashkent]; 2012.
18. Irnazarov K. Press and interethnic relations: criticism of the stereotypes of totalitarianism, analysis of the policy of independent development (on the materials of the press of Uzbekistan for 1971-2001) [dissertation]. [Turkestan: NU Uz]; 2004.
19. Irnazarov KT. The Kazakhs. Problems of national identification and national identity in the press of Kazakhstan International Publishing Center (Palmarium Academic Publishing). Saarbrücken Germany; 2014.
20. Gorbachev MS. On the national policy of the party in modern conditions. Moscow: Politizdat; 1989.
21. Kunayev DA. About my time: Memories. Almaty; 1987: 267-271.
22. KazGU Bulletin. Journalism series. 1999; 7:12-13.
23. Esilbaev T. Price of narcissism. True; 1987.
24. Golotvin ZG. What was behind the events in Alma-Ata? Young guard. 1989; 6:58.
25. Korgasbek J. Where is the evidence, who is the witness? Kazakh adabytes; n.d.
26. A bitter lesson should be learned for the Comsomol activist of Kazakhstan, educators of youth 1987. Editorial article, Komsomolskaya Pravda; 1989.
27. Kalshabekov A. Abandon Leninism, Aidosov A. Defend Leninism. Kazakhstan Communist. 1991; 4:54-59.
28. Zasursky YN. Scientific research of journalism is an important factor of glasnost. Bulletin of Moscow University. Journalism; 1989; 10(5):3.
29. Evtushenko E. Petrel of lightning similar. Literaturnaya gazeta; 1988.
30. Aitmatov C. Do not undermine the basis. Izvestia; 1988.
31. Shakhanov M. Our and common values. Pravda; 1988.
32. Shakhanov M. Gorky, but let's say the truth. Kazakh adabiets; 1988.
33. Ardaev V. A new assessment of events in Alma-Ata. Izvestia; 1990.
34. Korgasbek J. Where is the evidence, who is the witness? Kazakh adabytes; 1989.

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TRAINING OF FUTURE TEACHER FOR ASSESSMENT OF RESULTS OF TEACHING IN THE CONTEXT OF FORMATION OF ITS TECHNOLOGICAL COMPETENCE

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Abstract: The quality of the higher pedagogical education is considered as the integrated characteristic of educational activity and its results taking into account the needs of the personality, society, state. Meanwhile, student teaching demonstrates insufficient attention of teachers of higher education institutions to development of abilities of estimated activity that leads to the incorrect estimates having a negative effect on motivation, a self-assessment of the pupil and effectiveness of education. Accepting the importance of pedagogical assessment by authors of this article scientific search of the analysis of state and modern requirements to vocational training of future teacher in the context of the organization of control and estimation of results of teaching has been carried out. In the article, skilled and experimental work, which has been directed to modeling and experimental approbation of the revealed conditions in the educational process of training of future teachers, is stated. Also, authors state results of approbation of the technology of development of abilities of estimation of results of teaching developed by them at the heart of which application in the course of vocational training of future teachers of the author's program "Modern Approaches to Estimation of Results of Pupils' Training" realized as "through" when carrying out traditional professional and pedagogical courses. The experimental data presented by authors have confirmed the efficiency of technology and pedagogical conditions of vocational training of future teacher to the assessment of educational achievements of school students in the context of the formation of his technological competence.

Keywords: preparation, teacher, control, estimation, results, training, assessment, pupils, competence, technology.

1 Introduction

Modern living conditions are dictated by high requirements for the training of specialists in any sphere of professional activity that is caused by the need to increase the competitiveness of university graduates in the labor market.

Therefore, not accidentally, in the Message of the President of the Republic of Kazakhstan to the people of Kazakhstan "Kazakhstan way-2050: The uniform purpose, uniform interests, the uniform future," a political and conceptual framework of development of education of the country in the long term is defined. N. Nazarbayev (1), after having considered calls of new global reality, has noted the need of development of the human capital and modernization of education.

In this regard, the transition to the competence-based focused education which defines requirements to pedagogical personnel resources according to requirements and inquiries of today is considered one of the priority directions of modernization of the system of the higher professional pedagogical education. It, in turn, causes search of the new principles of the organization of educational process in higher education institution which cornerstone integration professional and subject is, technological and methodical making the maintenance of pedagogical education.

In view of that in the conditions of transition from a knowledgeable paradigm of education to personal focused, this component of activity of the teacher is of particular importance. In this regard demand changes and the existing approaches to assessment of achievements of pupils during training: if earlier at assessment of achievements of the school student the teacher, first of all, was guided only by result of formation of subject knowledge, skills, then today he has to be interested in process of formation of the personality in educational activity, and, first of all, – a way of assimilation of knowledge and acquisition of competencies.

Meanwhile, student teaching demonstrates insufficient attention of teachers of higher education institutions to develop future teachers' abilities of estimated activity that leads to the incorrect estimates having a negative effect on motivation, a self-assessment of the pupil and effectiveness of education. Unreasonable estimates are the frequent reason for the conflicts of the teacher with pupils and parents. Not accidentally, therefore, in the majority of psychology and pedagogical researches, pedagogical assessment is considered as the necessary component of educational activity directed to measurement of compliance of knowledge to requirements of the training program as stimulant of teaching and educational process and regulation of behavior of school students (S.A. Amonashvili, B.G. Ananyev, L.I. Bozovic, S.L. Rubenstein, V.A. Sukhomlinsky, N.V. Seleznyov, E.I. Perovsky, V.F. Shatalov, etc.).

The technological competence of the teacher has to provide effectiveness of the organized educational process at school in the conditions of realization of all three paradigms, that is, beginning from the use of the chosen technology of training and finishing with creation of the corresponding educational environment providing development of each student, design, and realization of pedagogical system. (2)

The competence assumes continuous updating of knowledge, possession of new information for the successful solution of professional tasks at present and in these conditions. As we recognize that check and assessment of achievements of students certainly are a very essential component of the process of training. Therefore, training of future teacher has to correspond to modern achievements of a pedagogical science, social requirements and strategic priorities of the modern higher school.

Therefore, the purpose of our research consists in the improvement of the system of training of future teacher for estimation of results of the teaching of pupils in the context of the formation of his technological competence.

2 Materials and Methods

The methodological basis of research was made by philosophical regulations on universal communication, a mutual conditionality of processes and the phenomena; about unity of the theory and practice; the doctrine about driving forces of development of the personality, the idea about the activities roles in the formation of the personality which defined the strategy of a research; all-methodological regulations on application of system and integral, competency-based, personal and activity and synergy approaches and simulation.

For the solution of objectives in the research we used a complex of methods: theoretical methods of a research (comparative and comparative analysis of scientific and pedagogical and methodical researches, study of the best pedagogical practices of the higher school, simulation); empirical methods of a research (inquiry, questioning, conversation, interviewing; observation over pedagogical activities of students during student teaching; analysis of products of creative activities of students; the stating, creating and control experiments; expert assessment and self-assessment); methods of mathematical and statistical processing of empirical material.

The problem of formation of technological competence, determination of its entity and structure, contents received lighting in different operations of the modern scientists. (3, 4)

So, by foreign scientists, it is marked that investments into knowledge and abilities of teachers increase the effectiveness of training of pupils more than any else investments in education. (5)

Experts in the field of professional pedagogical education for years discussed concerning whether it is necessary to place emphasis on knowledge of maintenance of a subject matter which should be taught future teachers, or on knowledge of pedagogics. (6) Today admits everywhere that operation of the teacher is difficult and requires broader preparation. A row of the famous researchers from the different countries (Anne Grosso de Leon, Anne Reynolds, Robert Glaser, Hilda Borko and Ralph Putnam, Olugbemiro Jegede, Margaret Taplin, Sing Lai Chan) is believed that to the teacher also knowledge, skills of estimation of the results of activities of pupils are required. (7)

Considering ambiguity and specifics of the concept "technological competence of the teacher", it is possible to designate logic of the analysis: from reviewing of an entity of technological approach in education and switching on of pedagogical technologies in educational process to reasons for an entity of technological competence of the teacher as complex of abilities to apply pedagogical technologies in educational process, to realize design of pedagogical process as purposeful sequence of operations, actions and also ability to estimate results of educational achievements of pupils.

In pedagogical science, assessment is understood as a process of comparing of the level of assimilation of knowledge reached by students with the reference representations recorded in the State educational standards and described in training programs. (8)

As the analysis of works of foreign scientists, a main goal of estimation in a class showed - to help teachers and pupils with the enhancement of the process of teaching, to support the progress of the pupil. Estimation provides teachers with a back coupling which gives them information on as far as they are effective as teachers and shows to children as far as they progress as pupils. (9-11)

Estimation for the purpose of training (Assessment for Learning) is the process of search and interpretation of reliable data which pupils and their teachers use to decide where trainees are in process of the training where they need to move further and how to make it in the best way. (12, 13)

Estimation for the purpose of training possesses the following characteristics (14):

- it is built in the process of teaching and the doctrine and is their essential part;
- assumes discussion and coordination of the educational purposes by teachers and pupils;
- it is aimed at helping pupils to realize those purposes of training which they shall reach;
- involves pupils in self-estimation or estimation of each other;
- provides back coupling which helps pupils to realize what following steps in the doctrine they should take;
- strengthens confidence that each pupil can achieve improving;
- involves both the teacher and pupils in the process of reviewing and a reflection of data of estimation.

Proceeding from the analysis of psychology and pedagogical researches of domestic scientists, the assessment of educational achievements of school students is considered by us as process and result of comparing by the teacher of level of assimilation by pupils of knowledge, skills according to requirements (standards) which are defined by the educational standard and school programs.

We imply the process and result of training, the advance of the pupil from the previous level to the new level of educational preparation set by the educational standard educational achievements of school students.

The success of pedagogical activities of the teacher is defined not only by the personal socially caused its characteristics defining the social and moral side of professional interaction but also abilities of monitoring and assessment of the educational

achievements of students which are object components of his professional competence.

Pedagogical activities - the field of the professional activity of the teacher on training, education, and development of pupils. (16)

According to V.A. Slastenin (16), pedagogical activities as the difficult dynamic system has a specific structure which part are numerous elements.

These ideas are important for the understanding of an entity of technological competence of the teacher by the development of the informative side of technological competence of the teacher with an orientation to the idea of a humanization not only technique but also all sociocultural human life. It means that technologically competent teacher acts and carries out the professional activity inhumane "around technical" space, being its socially independent subject. (17)

The analysis of the known sources (Y. Arutyunov, V. Bezrukova, V. Bepalko, V. Ivanchenko, D. Kavtaradze, V. Pityukov, L. Podymova, E. Polat, V. Serikov, V. Simonenko, V. Slastenin) shows that the technological competence of the teacher expresses the unity of theoretical and practical training of the teacher.

Theoretical preparation is shown in the generalized ability to think technologically and assumes presence at the teacher of analytical, predictive, projective and reflexive abilities.

In the content of practical preparation, they are represented, first of all, by abilities to allocate and establish interrelations between components of the pedagogical process, the purposes, and means of the pedagogical activity, to design pedagogical process most optimum, without costs and losses. Thus, to have technological competence – means to isolate the main objective (problem) and to find ways of her optimal solution to real professional activity. (17)

In the structure of technological competence of the teacher, we consider lawful, to especially allocating the procedural component including control and estimated component which has a significant effect on learning efficiency.

So, A.I. Mishchenko (18) notes great importance feedback for the purpose of obtaining by the teacher information on the compliance of the received results planned is for an effective course of the pedagogical process, in this regard considers necessary allocation in the pedagogical activity of control and estimated (reflexive) component.

T.S. Polyakova (19), in a research, allocates seven components of the structure of pedagogical activity: design and target; substantial; diagnostic; organizational and methodical; communicative; stimulative-adjusting; control an estimated.

M.G. Reznichenko (20) allocates six components of pedagogical activity: constructive, organizing, communicative, perceptual, communicative, research, control and estimated (reflexive) component.

All these kinds of activity with sufficient distinctness are shown in the work of the teacher of any specialty, their implementation assumes possession of the teacher of special abilities.

N.D. Kuchugurova (21) has been considered groups of the abilities necessary for the teacher for control of educational cognitive activity of pupils. These are the ability to specify the studying purposes; ability to carry out selection of material for control according to the allocated purposes; ability to make and choose a standard; ability to define types, forms, ways and control devices; ability to carry out correction on the basis of estimated activity; ability to establish the reasons of mistakes and to draw up the plan of their elimination; ability to carry out self-checking; abilities to carry out estimated activity; ability to establish criteria of estimates; ability to use criteria of estimates;

ability to express result of estimation in a certain form of assessment.

The structure of control and estimated activity of the elementary school teacher in the research of V.L. Sinebryukhova (22) is presented as follows: definition of the purpose and subject of control → control plan → the choice of the most rational methods and forms of control → implementation, performance of a control → check of results, correction of mistakes if they were → comparison of the received results with planned → estimation of results of control.

We find confirmation to it in the research of E.V. Ivashchenko (23) where the following groups of the control and estimated abilities necessary for future elementary school teacher are allocated: ability to allocate the purpose, tasks and subject to control; abilities to plan control; abilities to organize control; abilities to estimate results of control; ability to correct results of educational activity.

Relying on results of the conducted researches, it is possible to draw a conclusion that control and estimated activity of the teacher has the specifics and it needs to be considered at the organization of the process of his vocational training in a higher education institution.

Thus, technological competence is a part of professional and pedagogical competence and can be defined as integrative professional quality which is characterized by knowledge of technologies and knowledge of technologies, methods, means, forms of activity and conditions of their application, the organization, because there would be creative abilities, design abilities, analytical abilities and abilities of estimation and also reflexive positioning in relation to results of the activity.

The concept "readiness" is connected with the concept "preparation", but they aren't synonyms, - though are connected among themselves, interconnected and interdependent as the quality of readiness of the expert in many respects is defined by what he had training. The concept of "preparation" is understood as a dynamic process which ultimate goal - formation of such integrated quality of the personality as readiness. In general, it is possible to conclude that preparation for professional and pedagogical activity is considered as a process in which readiness results.

Considering an estimation problem, it is necessary to stop on one difficulty which often faced in practice of work of teachers, often teachers don't differentiate between the concepts "assessment" and "mark". The fact of mixing of these important didactic concepts admits scientists V.P. Simonov, N.F. Talyzina, V.A. Yakunin and also researchers G.A. Soldatov, V.L. Sinebryukhova, etc. S.A. Amonashvili (24) notes that "assessment" and "mark" are often mixed with each other, even in textbooks of didactics. It is not seldom when an assessment is identified with a mark. According to him, a mark has no right to attribute itself assessment essence, it is no other than materialized (digital, conditional, verbal or another) expression of the result of the estimated activity of the teacher.

So, in A.K. Kolechenko's (25) research, other pedagogical problems arise in the course of estimation:

- 1) rigidity of estimates of teachers of the authoritative style of the management (understating of estimates);
- 2) generosity errors (overestimate of estimates);
- 3) errors of the central tendency (all scale of marks isn't used);
- 4) logical mistakes (the logic of the answer of the pupil shouldn't disperse from the logic of the teacher);
- 5) delay of a mark (are exposed in the diary at the end of the week or later);
- 6) the announcement of estimates (the announcement of negative marks before all class humiliates the dignity of children);
- 7) "bookkeeping approach" (marks the quantity of the mistakes made tasks or made is taken as a principle);

8) arithmetic-mean approach to exposure of a quarter and annual mark;

9) lack of unambiguity, concreteness, and clearness in the use of criteria of estimation.

The problems noted by A.K. Kolechenko (25), in the estimation of activity of pupils, often lead to the fact that some pupils, with the underestimated I-concept refuse to study, others, with the overestimated I-concept, facing obstacles, aren't ready to their overcoming. We support the point of view of A.K. Kolechenko (25) that the process of assessment of activity studying at a school in many respects depends on personal features of teachers.

The need of creation of such educational process has directed our research on a way of search of pedagogical conditions of development of abilities of control and assessment of the educational success of the pupils who are at the same time developing key, basic and special competences of the future teacher.

The basis of this search was made by theoretical provisions of the concept of the developing training (V.S. Ilyin, Z.K. Karayev, T.T. Galiyev), the principles of the personal focused approach in education (V.V. Serikov, I.S. Yakimanskaya, E.Z. Battalkhanov, G.K. Nurgaliyeva, B.A. Turgunbayeva), the ideas of subject development of the identity of the teacher (R.M. Asadullin, V.A. Slastenin, E.N. Shiyanov, N.D. Hmel), mechanisms of the modular organization of educational process (S.Y. Batshev, A.A. Verbitsky, M.A. Choshanov, P. Yutsyavichene) and also experience of real educational practice of training of teachers in the system of higher education.

The submitted provisions have allowed building a theoretical model of the competency-based educational process of training of future teacher which leading purpose is the development of abilities of estimation of results of teaching. The content of education is directed to the solution of three tasks which are mutually causing each other: formation of pedagogical thinking of future teachers, development of their abilities of estimation of results of training and professional competences. (26) At the same time, the logic of the thinking of the student is formed not by the logic of training material, and ways of the organization of cognitive activity, assimilation of these ways, their transformation into means of the organization of own subjective experience.

The competency-based educational process is based on the principles of personal oriented, activity and system and synergetic approaches, practical orientation of content of education, integration, and continuity of professional education, individualization of means and methods of training, and effective functioning of this model is reached due to performance of the revealed and reasonable pedagogical conditions. (27)

Experimental work was aimed at modeling and experimental approbation of the identified conditions in the educational process of training future teachers. We have developed and tested the technology for developing skills in assessing learning outcomes, which is based on the application in the training of future teachers of the author's program "Modern Approaches to Evaluating Student Learning Outcomes", realized as "through" in the conduct of traditional vocational and pedagogical courses.

As structural elements of the stage-by-stage development of abilities of estimation, we consider the educational and professional tasks of a problem of assessment of results of educational activity of school students. The process of productive communication of future teacher with school students directed to formation of abilities acts as a core of abilities to solve educational and professional problems creatively to take away views and forms of pedagogical assessment with a support from him on positive in each school student, creating a situation of success in educational activity for the pupil. (28) The quality of the made decisions in many respects is defined by the abilities of the subject of activity acting as internal conditions through

which external influences refract. Abilities to estimate results of training activities as these internal conditions.

We recognize that the formation at the future teacher of cognitive abilities of estimated activity of the teacher allows him to analyze and assess a pedagogical situation, to isolate a problem, to overcome factors on which emergence of a problem depends, to define ways of a further solution. Operational abilities of future teacher allow building ways of the solution of educational and professional tasks in a perspective of estimated activity to realize pedagogical estimation taking into account contents, forms of activity, educational means. Presence at the future teacher of creative abilities allows solving educational and professional problems of practical implementation of a task of the analysis of results of work of pupils, relying on axiological perception and professional valuable interpretation of the relations shown by the school student in each separate situation.

Implementation of the pedagogical technology of development of abilities of estimation of future teachers has step-by-step character includes sequentially three stages replacing each other providing development of three types of the pedagogical abilities (cognitive, operational and creative) following from an entity of readiness of future teacher for estimation of results of educational activities of school students. (29)

Therefore, development of abilities of estimation of results of teaching of future teacher of our representations is implemented in 3 stages: 1 stage - orientation; the 2nd stage - theoretic-methodological; the 3rd stage - activity which correspond to years of training: the 1 stage - 1 course, the 2nd stage - the 2 and 3 course, the 3rd stage - the 4th course.

Defining the pedagogical condition of the advance of future teachers from a stage to a stage is a competency-based approach to the organization of educational cognitive activity of students in a perspective of evaluation activities. At the same time by us, it is considered that depending on an entity and structure of readiness process of formation of skills of estimation continues during the whole years of training of future teacher and is subdivided into several stages. (30) There, the diagnostic tasks correspond to each stage, and the implementation of these tasks requires certain conditions. At all grade levels, knowledge of students is concretized and go deep. For support of the purposeful development of abilities of estimation, we concretized the purposes and tasks of each stage, determined their content, i.e. specific types of the researched abilities which planned to work out at students and a complex of the educational and pedagogical jobs providing their development.

So, the main objective of the 1st stage is the formation of internal behavior model, the valuable attitude towards knowledge, cognitive activity; formation of installation on the independent search and getting of knowledge in a perspective of estimation of educational achievements of school students.

3 Results and Discussion

The target component of the model of training of future teacher for assessment of educational achievements of school students includes improvement of the quality of training of future teacher for assessment of educational achievements of school students in the conditions of the competence-based focused education. The specified purpose is concretized by a number of tasks: formation at students of complete idea of estimated activity; increasing knowledge of control and assessment of educational achievements of school students; improvement of abilities to carry out planning, the organization of control and assessment of his results in modern conditions of school education; development of steady requirement to mastering pedagogical skill for estimated activity.

The substantial block of the model includes basic theoretic-practical training of students which is complemented with a

course for choice "Modern Approaches to Evaluating Student Learning Outcomes" and the system of research tasks for student teaching. Formation at students of motivational and valuable, cognitive, activity and reflexive components of readiness for estimated activity is the result of the implementation of the contents of the model.

The motivational and valuable component characterizes the steady positive relation to control and estimated activity, recognition of each child by the subject of educational activity. The cognitive component assumes understanding and acceptance of a system of professional knowledge according to the educational achievements of school students. The activity component of readiness is expressed in the formation of students of control and estimated abilities: to allocate the purpose, tasks and subject to control; to plan and organize control; to estimate and correct results of the educational activity. The reflexive component of readiness is focused on the formation of students of an adequate self-assessment and implementation of correction of own control and estimated activity. Each of these structural components of readiness for assessment of educational achievements of school students is formed not separate from each other, and in a complex, in interpenetration.

Thus, this component of the modeled process includes the technique of vocational training of students to the assessment of the educational achievements of school students consisting of three stages: preparatory, the main and total.

It should be noted especially that when training future teacher for assessment of educational achievements use of various forms and methods of study is essential: lectures, practical and seminar training, SWS and SWST, research work of students, student teaching, individual, group, collective consultations; explanatory and illustrative, reproductive, partial and search, research and creative methods of training, technology of creation and presentation of "portfolio".

The criteria and productive component of the model of training of future teacher for assessment of educational achievements of school students represent set of criteria, the indicators allowing to determine levels of formation of readiness of students for estimated activity.

The experimental stage of our research included: the stating experiment during which the initial level of readiness of students of pedagogical faculty for assessment of educational achievements of school students has been established; the forming experiment directed to approbation of technology of vocational training of future teachers to assessment of educational achievements of school students, identification and experimental check of the main pedagogical conditions promoting efficiency of process of training of students for this kind of activity; the check experiment which has allowed to reveal results of experimental work.

On carrying out the stating experiment the complex of the interconnected methods was used: questioning, observation of the activity of teachers and a conversation with them for the purpose of identification of the most typical difficulties and problems arising at them at the assessment of educational achievements of school students.

As a result of observation of the activity of teachers, it has been established that 96% recognize the need and importance of estimated activity but experience a number of difficulties in estimation of educational achievements of school students. At this stage, we have revealed levels of formation of motivational and valuable, cognitive, activity and reflexive components of readiness of students for the studied activity which results are presented in Table 1 and the Figure 1.

Table 1. State of Readiness of Future Teacher to the Assessment of Results of Teaching at the Starting Stage of the Experimental-research Work

| Components of training | The formed levels of readiness for assessment of teaching results | | | | | |
|------------------------|---|------|---------|------|------|------|
| | High | | Average | | Low | |
| | EG | CG | EG | CG | EG | CG |
| Motivational value | 14,9 | 14,4 | 64,2 | 66,5 | 20,9 | 19,1 |
| Cognitive | 15,5 | 13,7 | 43,3 | 43,8 | 41,2 | 42,5 |
| Active | 12,8 | 11,6 | 48,7 | 46,6 | 38,5 | 41,8 |
| Reflexive | 12,8 | 13,0 | 51,4 | 50,0 | 35,8 | 37,0 |

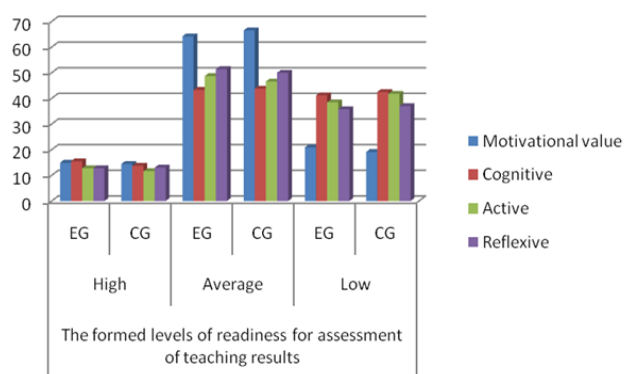


Figure 1. The Diagram of Results of the Stating Investigation Phase

The purpose of the second stage of experimental work - development, and check of the efficiency of the technology of training of future teacher for assessment of educational achievements of school students. For his carrying out we have defined experimental (148 people) and control (146 people) groups of a number of students of pedagogical faculty on specialties "History", "Physics", "Vocational education" and "Pedagogics and Technique of Primary Education".

At this stage of the experimental work estimated abilities of students of the experimental group by means of studying of a course at the choice of "Technology of estimation of educational achievements of pupils" were fulfilled. The course assumed profound studying by students of current problems of pedagogical estimation, attraction them to research work, the formation of a creative approach to future professional activity.

Teaching a course was for choice carried out in the form of traditional and nonconventional classroom occupations and independent work of students.

The third stage of vocational training in the assessment of the educational achievements of school students - was carried out in the course of student teaching on the 4th course and had practical

character. During preparation and carrying out test lessons future teachers carried out the system of the research tasks directed to formation of estimated abilities: observation of control and estimated activity of the teacher, filling of the flowchart of planning of control and assessment of educational achievements of school students; carrying out together with the teacher of pedagogical diagnostics of educational activity of school students and the analysis of her results; carrying out an analysis of written examinations; daily estimation of written works of pupils, etc.

For a check of the efficiency of the presented process of vocational training of future teachers to the assessment of educational achievements of school students, we have made the controlled research including observation, questioning, testing and interviewing, a self-assessment and expert assessment. Levels of readiness of students for assessment of educational achievements of school students were determined by us by readiness components, in particular: motivational and valuable, cognitive, activity, reflexive components by the criteria and indicators defined earlier. Dynamics of formation of components of readiness at students of control and experimental groups at a control stage is presented in Table 2 and in drawings (Figures 2, 3).

Table 2. Indicators of Formation of Readiness of Future Teacher for Assessment of Results of Teaching at a Control Stage of Experimental Research

| Components of training | The formed levels of readiness for assessment of teaching results | | | | | |
|------------------------|---|------|---------|------|------|------|
| | High | | Average | | Low | |
| | EG | CG | EG | CG | EG | CG |
| Motivational value | 47,3 | 29,5 | 41,9 | 56,8 | 10,8 | 13,7 |
| Cognitive | 35,2 | 18,5 | 54,1 | 57,5 | 10,7 | 24,0 |
| Active | 27,0 | 18,5 | 57,5 | 52,5 | 15,5 | 28,8 |
| Reflexive | 34,5 | 21,9 | 52,0 | 52,7 | 13,5 | 25,4 |

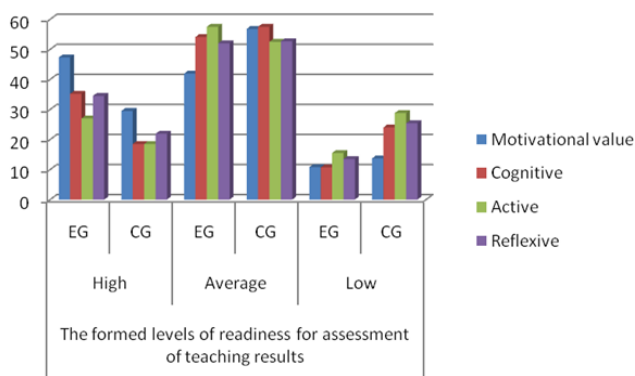


Figure 2. The Diagram of Results of a Research of Control Group Following the Results of EW

In general, dynamics of indicators of formation of readiness of future teacher for assessment of results of training which have

been presented in the Tables 1, 2 on possible levels of the studied quality are presented in Table 3.

Table 3. Comparative Analysis of the Formation of Readiness of Future Teacher for Assessment of Results of Training of Experimental Research

| Degrees | High | | Average | | Low | |
|---------------|-------|------|---------|------|-------|------|
| Stages Groups | Start | Last | Start | Last | Start | Last |
| Experiment | 14,0 | 36,0 | 51,9 | 51,4 | 34,1 | 12,6 |
| Control | 13,2 | 22,1 | 51,7 | 54,9 | 35,1 | 23,0 |

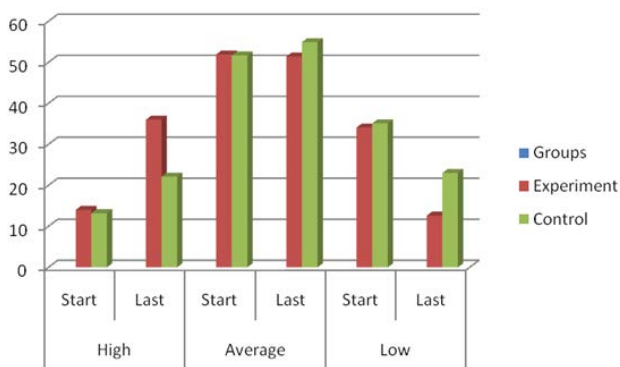


Figure 3. Diagram of an Initial and Total Cut of Results of Experimental Work

4 Conclusion

Thus, training of teachers and professional development represents the difficult many-sided process of formation of wide volume scientific and methodical knowledge, steady professional orientation, the properties of the personality necessary for the performance of pedagogical activity, awareness of the importance of the chosen profession.

During the analysis of psychology and pedagogical literature on a problem of vocational training of the teacher, we have come to a conclusion that at the present stage of development of pedagogical science this problem is allocated with the following aspects: determination of content of pedagogical education, complete pedagogical process, forms of improvement of pedagogical abilities, in particular control and estimated abilities. In general, we consider that the problem of professional education in respect of training of teachers for estimation of educational results is especially necessary for comprehensive consideration and introduction of positive transformations to the system of training of future teachers and his further professional development.

Literature:

1. Nazarbayev N [Internet]. The Message of the President of the Republic of Kazakhstan to the People of Kazakhstan. Kazakhstan way – 2050: Uniform purpose, uniform interests, uniform future; 2014, January 17. Available from: <http://akorda.kz/ru>
2. Nikiforova EI. Development of technological competence of the teacher in the course of professional development: methodical aspect. Methodologist. 2006; 7:10-14.
3. Uman AI. *Didactic training of future teacher: technological approach*; 1993.
4. Yadvirshis LA. *Formation of technological competence of the teacher in the course of preparation for social and pedagogical activity*. Belgorod; 2010.
5. Fredriksson U [Internet]. European teacher education policy: recommendations and indicators. European Commission, Joint Research Centre, Institute for the Protection and Security of the Citizen, Centre for Research on Lifelong Learning; n.d. Available from: <http://www.pef.uni-lj.si/atee/978-961-6637-06-0/715-723.pdf>
6. Hans A, Akhter S [Internet]. Emerging trends in teacher's education; The Macrotheme Review. 2013; 2(2). Special Issue

- on Education and Training. Available from: http://macrotheme.com/yahoo_site_admin/assets/docs/3HansMR22SI.40131741.pdf
7. State University [Internet]. International Perspective Teacher Preparation – New Paradigm in Teacher Education, What Do Teachers Need to Know? n.d. Available from: <http://education.stateuniversity.com/pages/2484/Teacher-Preparation-International-Perspective.html>
8. Shakirov RH, Burkitova AA, Dudkina OI. *Estimation of educational achievements of pupils: methodical management*. Bishkek; 2012.
9. Association for Achievement and Improvement through Assessment [Internet]. Assessment for Learning: 10 Principles. Research-based Principles to Guide Classroom Practice. Assessment Reform Group; 2002. Available from: <https://www.aiaa.org.uk/content/uploads/2010/06/Assessment-for-Learning-10-principles.pdf>
10. Mortimore P. *The road to improvement. Reflections on school effectiveness*. Swets & Zeitlin Publishers; 1998.
11. Schurr S. *Authentic assessment: using product, performance, and portfolio measures from A to Z*. Westerville, OH: National Middle School Association; 1999.
12. U.S. Department of Labor. *What work requires of schools. A SCANS report for America 2000*. Washington, DC: The Secretary's Commission on Achieving Necessary Skills, DOL; 1991.
13. Wiggin GP. *Educative assessment: Designing assessments to inform and improve student performance*; 1998.
14. Assessment Reform Group. *Assessment for Learning: Beyond the Black Box*; 1999.
15. Slastenin VA. *Formation of the identity of the teacher in the course of his vocational training*. Moscow: MAGISTR-PRESS; 2000.
16. Grebenkina LK. Formation of professionalism of the teacher in the system of continuous professional education [dissertation]. Moscow; 2000.
17. Harris DN, Sass TR. Teacher training, teacher quality and student achievement. *Journal of Public Economics*. 2011; 95(7-8):798-812.
18. Mishchenko AI. *Introduction to a pedagogical profession*. Novosibirsk: NGPI; 1991.
19. Polyakova TS. *The analysis of difficulties in pedagogical activity of the beginning teachers*. Moscow: Pedagogics; 1983.
20. Reznichenko MG. *Introduction to pedagogical activity. Manual for students of faculty of primary education*. Samara: SGPU; 2003.
21. Kuchugurova ND. Formation of ability to exercise control of the educational cognitive activity of school students of a future teacher [dissertation]. Stavropol; 1997.
22. Sinebryukhova VL. Training of students of teacher training University for the realization of control and estimated activity of the elementary school teacher [dissertation]. Surgut: Surgut State institute; 2000.
23. Ivashchenko EV. Vocational training of future elementary school teacher to the assessment of educational achievements of school students [dissertation]. Belgorod; 2009.
24. Amonashvili SA. *Training. Assessment. Mark. Text. Pedagogics and Psychology series*. Moscow: Znanie; 1980.
25. Kolechenko AK. *Encyclopedia of pedagogical technologies*. Saint Petersburg: KARO; 2002.
26. Pigge FL, Marso RN. A longitudinal assessment of the affective impact of preservice training on prospective teachers. *The Journal of Experimental Education*. 1990; 58(4):283-289.
27. Marzano RJ, Kendall JS. *Implementing standards-based education*. National Education Association of the US; 1998.
28. Smith R. The future of teacher education: principles and prospects. The American Education Research Association Symposium; 1999; Montreal.
29. Cochran-Smith M, Fries MK. Stick, stones and ideology: The discourse of reform in teacher education. *Educational Researcher*. 2001; 30(8):15.
30. Zeicher KM, Laston DP. Theme: Restructuring teacher education. *Journal of Teacher Education*. 1990; 41(2):3-20.

Primary Paper Section: A

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COLLABORATIVE ENVIRONMENT AS A FACTOR IN THE FORMATION OF THE PROJECT ACTIVITY OF BACHELORS

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Abstract: The article analyzes the collaborative environment as the basis for the formation of the project activities. The novelty of this problem is that at present traditional education is undergoing great changes, due to the fact that Kazakhstani education is entering a new stage, which means that new methods are needed in the education system. Today not only the teacher but also the student needs to apply innovative methods, one of which is project activity. As is known for the world pedagogy of the 21st century, the transition to such models of education is typical, which puts students in an active position, and this is facilitated by the collaborative environment. The purpose of the article is to justify the collaborative medium as the basis for the formation of project activities.

Keywords: innovation, personality, collaboration, collaborative environment, competence, project activities.

1 Introduction

The twenty-first century is an age of innovative technologies that requires changes in the functions of the teacher of higher education. Previously, the main function of the teacher was a transfer of the finished experience to students, but now this function has changed, that is, the basis of education is the process of teaching students how to obtain knowledge that leads to the acquisition of new social roles and statuses. Similarly, in the process of education, the student develops those professional skills that enable him to become an element of the economic sphere of society's activity. As a result, students become independent, responsible, self-motivated, with developed critical thinking. Students can freely communicate with each other and in the future become competent in various areas of life, and thus, be in demand. Hence, the main goal of the teacher is the formation of such student's personality, which consists of the following competencies:

- correctly state their thoughts;
- culturally defend their point of view;
- express yourself in various activities;
- be responsible and take responsibility for actions;
- to communicate with surrounding people;
- objective self-esteem - reflection.

Outlined competencies are formed when using the collaborative environment in teaching since the center of the learning process is a student, his cognitive and creative activity.

The use of the concept of "collaborative environment" in the higher school of Kazakhstan is associated with the transformation of the education system, which began in 2010.

2 Materials and Methods

In the practice of modern vocational education, there is a tangible gap between the dynamic processes in society and the quality of training of specialists at the university. The prevailing nature of subject teaching at the university leads to the fact that students' knowledge is often scattered, is too theoretical, resulting in difficulty for university graduates to apply their knowledge in practice and to carry out organizational, managerial, and design activities. As a result of such educational activity, the deep inner layers of the personality are not affected, the education obtained with such training does not give the desired results.

Therefore, higher education cannot be limited to supplying its students with only a stock of knowledge in certain subjects for a distant future, for their future professional activity. In the organization of educational work for the formation of a socially successful student personality, it is necessary to consider not

only special and professional interests but also personal-social ones. From the standpoint of implementing humanistic principles, the interests of the student should be for the university not only controlling, corrective factors but to a certain extent also guiding reference point for the formation of a socially successful personality. (1-2)

The collaborative environment has creative potential and has an effective impact on the personal and professional development of the future teacher. In such an environment, the student feels that he is a subject of collective activity, an active participant in professional and pedagogical intercourse, he is aware of his importance and personal value in the team.

The peculiarities of creating a collaborative environment are closely related to the theory of team development, developed and experimentally proven by A.S. Makarenko. The essence of the given theory lies in the fact that the formation and personality development is due to the peculiarities of the organization of the system of mutual relations with other people in a team, upbringing of a personality "through a collective", "in a collective" and "for a collective".

Although in pedagogical theory there are contradictory interpretations about the upbringing of the individual in a team, we believe that the given theory has a personality-centered, humanistic orientation, since it is through the use of the creative potential of the collective, the individual can be given an opportunity to open up his abilities and take place as an individual. This idea is expressed in the fundamental principle proposed by A.S. Makarenko as a principle of "respect and demand", that is, the teacher is required to be able to combine severity and respect for the individual, to harmonize relationships among members of the student group, to approve the rules of mutual responsibility and dependence. By expanding the basic functions of the collective as an organizational, educational, stimulating, A.S. Makarenko emphasizes that such signs are inherent only to a developed collective, and only a developed team can successfully fulfill their social functions. (3)

This means that in order to form a socially successful personality of a future teacher, the main guiding vector should be the creation of a collaborative learning environment that implies the need for favorable conditions for the disclosure of the potential possibilities of the individual, for introducing students to the features of professional and pedagogical communication.

The ability of the teacher to organize group, team, pair activities of students in the classroom. There are different types of distribution in groups. It is necessary to consider the following points:

- to work out the collaboration rules of group work together with the participants;
- groups must be of an exchangeable composition;
- to distribute different roles to each group;
- roles in groups must constantly change;
- compliance with the norms and requirements of professional ethics;
- the admission in the groups only constructive criticism.

The Pedagogical dictionary states, "Collaborative learning is an educational approach to teaching and learning that involves teamwork of groups of teachers or students in solving a particular problem, accomplishing a task or creating a project. As is known, project activity is understood as a student's educational, cognitive and research-creative activity. Collaborative learning is based on the idea that learning is a social activity, in its nature, in which participants communicate with each other, and the learning process is carried out through communication between students and teachers". (4) In the process of given type of training, it has an extreme influence on the motivation of students' education and positive regards

towards them, on the creation of favorable moral and psychological conditions for active learning. Thus, a qualitative attitude of the teacher to his subject is formed, efficiency, self-discipline in work, tact in relation to students, timely assistance in their studies, objectivity in assessing their success, endurance in difficult situations, which greatly influences the process of acquirement, encourages students to develop striving to imitate the positive example of the teacher. As a result, this significantly increases the educational effect of teaching. (5-6)

The concept of "collaboration" or "cooperation" is a joint activity (process) in any sphere, two or more people or organizations for the achievement of common goals with its knowledge sharing, learning, and consensus achievement. (4)

To the collaboration, and vice versa, carry crowdfunding, which in many ways is similar to the collaboration and is built on the same basic principles that are:

- emotional engagement of participants;
- awards receiving;
- the specific goal of the event that was chosen;
- trust;
- full transparency of fund-raising for project implementation;
- convenience.

As a rule, such a process requires the presence of a governing body, herewith the form of leadership can also be public by the cooperation of equal partners of the decentralized community. It is believed that the participants in the collaboration can get more opportunities to achieve success in a competitive environment with limited resources, and this is an urgent problem of today.

Collaborative (cooperative) learning is an approach in which training is built on close interaction between students, or between students and teachers. Participants in the process gain knowledge through an active cooperative search for information, discussion and understanding of meanings and the formation of projects. (7)

Thus, collaborative (cooperative) training, that is, "... learning in cooperation is the personal philosophy of the student and not just the method used in the classroom. In all cases when people are grouped together, cooperation involves a way of working... based on respect, recognition of the abilities and personal contribution of each member of the group", and this is precisely what happens in the formation of project activities that can begin with the first course and logically continue to the fourth year, which will be reflected in the student's graduation work. (8)

A theoretical analysis of the available literature on the actual problem indicates that, along with the pedagogical system, the discourse of the pedagogical environment, the pedagogical space of the educational environment, the collaborative environment are fundamental concepts relating to any pedagogical phenomena. (9-10) They settled into the part of scientific disposal relatively recently and are not yet available in pedagogical dictionaries and encyclopedias. The heuristic basis for their use was the intuition of the habitat that has taken shape in the biological sciences. The external environment, depending on the conditions existing in it, can support the vital activity of the organism or oppress it. In the same way, the conditions external to the pedagogical subject may be more or less favorable for learning activities, activate it or reduce its effectiveness. This determined the relevance of the study of the particular problem.

As is known, the principle of the consistency and collaborative environment are built around the goal of education. In our opinion, it is expedient to use the given concept in those cases when general questions of the organization of the pedagogical process of a higher school and the effectiveness of educational activity are examined on the basis of the trust of all participants in the pedagogical process of higher school.

Practical experience shows that the collaborative environment is an audience in which teachers understand the extent of their

responsibility, unlimited only by the scope of the taught subject. The success of learning and teaching is in the creation of an atmosphere that allows the individual to feel free and safe in the learning process. Each student, coming to the audience, brings with him some of his own problems such as family, poorly prepared task for the lab practicals, tutorial. (11)

To create a benevolent atmosphere in class, for refocusing and attention concentrating, the necessary condition for each session should be a collaborative environment based on trust.

At the beginning of each lesson, it is necessary to create a positive emotional state of students. For this, the teacher, planning his lesson, develops a certain methodology of lecturing, conducting practical studies, laboratory practicals and tutorial based on the topic. So, practical studies can be held on the structure of the coaching session. It helps to include all participants in the learning process and make it conscious, motivated and exciting. At different stages, the teacher can use open-ended questions, active listening, positive support, while maintaining the principle of non-evaluation and evaluation. The training can include coaching techniques "Four questions of planning", "Shift point of view", "Supporting environment". Participants have the opportunity to work in small groups and in pairs, enriching their experience and forming a personal position.

Creating a trust-based environment is a large percentage of the success of the lesson. So, for example, using strategies of critical thinking, teachers involve students in group work, and the application of a dialogue learning strategy encourages students to actively discuss problematic issues and discussions about cause-effect relationships. It should also be noted that in a collaborative environment, students develop both socially and emotionally, that is, they have the opportunity to communicate with their peers, to defend and represent their ideas, to exchange opinions, to take an active part in the self- and peer-assessment.

Thanks to the collaborative learning environment, students develop mutual understanding, as indicated by V.R. Dauzhanova (12) by defining the advantages and disadvantages of the collaborative environment. So, to the advantages, she refers to the fact that in the classroom with the use of forms of cooperation, there is never a passive student. A big plus is acquired knowledge, which for each student is valuable and significant. (13)

Therefore, the main achievement of the collaborative environment is that students' eyes are glowing, they cease to be bored, they are constantly busy and gain knowledge independently. The surprise is replaced by expectation, it, in turn, generates a positive attitude to work. Each lesson includes assignments for individual work and for cooperative group work, there is more trust and positive on both sides. (14-15)

Group work is an important component in creating a collaborative environment in lectures, practical, laboratory practicals and tutorial. No less significant is the division into groups. With each teamwork, group membership must be different, this improves the team's cohesion and the possibility of each students' self-expression. As practice shows, working in a group, students support each other, strengthen and expand the acquired knowledge, develop thinking, imagination, the ability to make arrangement and come to a common solution of the delivered problem. (16-17)

Group work works productively when carrying out a project on a given topic. Students set goals, tasks and put forward their own hypotheses. You can work both in large groups and small.

The formation of social success is facilitated by the assembly of microgroups among students, in which, based on professional communication, each student is subject to different systems of relations such as teacher-group, teacher-microgroup, group-microgroup, microgroup-microgroup, microgroup-student, student-group, teacher-student, and others. (18-19)

Working in microgroups, students give each other comradely help, weak students feel friendly support, a healthy competitiveness is born between the groups, which encourages them to create a favorable psychological climate for the formation of successful activities. The role of the teacher in such cases is only coordinating, directing, advising and stimulating.

2.1. The effectiveness of collaborative learning

The collaborative learning is most effective when teaching groups with a predominance of experienced students who can share expertise with each other and with less experienced students.

- for the organization of group work on a project where it is necessary to go through the whole cycle of project preparation - from setting goals to achieving results;
- for solving semistructured problems, multivariable analysis, and in other cases when joint intellectual efforts of several (many) are needed to find a solution of the assigned task;
- for training communicative skills in the collective, observation and analysis of thematic models, identification of the possibility of creating project teams;
- for relaying of knowledge gained by participants in previous stages of training;
- when creating a learning environment, when you need to test a project before release. (20)

Evaluation of the effectiveness of collaborative learning is often subjective, due to the dependence on a large number of unpredictable factors:

- duration - in collaborative learning it is not always possible to set a time frame;
- complexities of assessment the amount of knowledge gained and the degree of their mastering;
- the elemental nature of training - the lack of a clear training program/scenario;
- subjective feedback - in form/content/emotional coloring. Often there are problems of psychological properties. For example, in some corporate cultures, it is difficult to openly evaluate students and the degree of their participation in the learning process, etc. (21)

2.2. Collaborative learning tools

Virtual collaborative spaces

1. Online collaborations:

- internal online collaborations (social media, Internet, blogs);
- special resources for online collaborations (educational and social platforms, web portals etc.).

2. "Live" collabotations:

- conversations, discussions;
- brainstorm;
- project team.

Collaborative learning can be seen as a philosophy of interaction and a way of life where people are responsible for their actions, including training, and respect the opportunities and contributions of their partners. Collaborative learning is a way of learning in which a student learns in the course of interaction with peers. (22) The educational result of the individual work of the student to build their knowledge is supported by the activities of the group and the team. A student shares resources with a group uses group work to learn. The structure of activity is flexible and open, and the route of research both open and free. The teacher plays the role of an intermediary in learning, while the group acts as a source of information, motivation, as a means of self-help and mutual support, and as a special place of interaction for the collective building of knowledge. Within the framework of collaborative learning, there is no a priori distribution of roles, as in joint (cooperative) work.

Individuals gradually merge with a group that becomes a single whole and the potential of which is more than the sum of its parts, which often allows one to perform high-quality work. At the same time, there is both the responsibility of each for the common cause and the team as a whole. All group members maintain close and constant contact, each brings their own actions to the group, everyone can contribute to the work of other group members in order to increase productivity and thus join the principle of continuous improvement in the implementation of each task and the project as a whole. The interaction of the group members is continuous, and it is the coherence of the collective that helps in achieving the final goal. (23-24)

Often, when adult learners, sometimes teachers hear the term "collaborative learning," it is automatically associated with the negative context of working in a group, from which they were supposed to suffer in the school environment or in the workplace. They refer to their own, sometimes unpleasant, experiences, which causes a desire to abandon the concept of cooperation, which they regard as unrealizable or as an attempt to shift the burden of learning from teacher to student. In open distance learning, teachers must properly explain the advantages of collaborative work and the need to support each of its participants, especially in terms of motivational dynamics, where the external aspect is a necessary variable in building success. It should be taken note of some initial concerns of students since it represents an example of a misunderstanding of what has become a completely irreplaceable approach to the greatest viability of teaching and learning in digital networks. (25)

Principles. Collaborative learning can be based on the following principles:

- the results of joint work give mutual understanding, perhaps more than when working independently of each other;
- verbal and written interactions contribute to the best understanding;
- the ability to realize, through experience, the relationships that exist between social interaction and better understanding;
- some elements of this deep understanding are peculiar and unpredictable;
- participation is voluntary and should provide freedom, but at the same time, it should be strongly supported.

It seems that the collaborative learning regime requires a wider participation of stakeholders. For a group, this ability to develop their human capital is viewed by some as a sign of collective intelligence. According to Pierre Levy (26), the collective mind is the intelligence distributed throughout the world, because no one knows everything, but everyone knows something. Knowledge is present in man, and not in some transcendental entity that organizes its ever-wider distribution in society; therefore, a well-organized collective is the main human wealth, which is coordinated personally in real time. Here we need to refer to cyberspace as a tool to help and support the collective intelligence, allowing for large-scale connection, which leads to effective mobilization of skills. (26) The collective mind is nothing more than a theoretical or philosophical concept; it can underlie in a new, effective and efficient social organization based on skills, knowledge, and experience.

Collective mind contributes to the power of creative potential that exists in each of us, in contrast to the force of isolated, divided and weakened. In collaborative learning, the teacher/tutor/facilitator becomes a kind of distributor of scores that supports its musicians without playing itself. Its role is essential for coordinating and harmonization all participants, for collective and individual assessment, providing support, individual and group consultations, as well as for providing input to maintaining a friendly atmosphere, motivation, and developing team spirit. (17,27)

By interacting, the members of the group together contribute to the overall success by:

- providing and receiving support and assistance;
- sharing information and resources;
- providing and receiving feedback;
- arguing with the reasoning of others;
- intensifying efforts to achieve goals;
- sharing with each other their achievements;
- involving in interpersonal relationships;
- taking care to increase the efficiency of the group. (26)

In a face-to-face interaction situation, group dynamics can greatly affect educational outcomes. The same is true for distance learning when working together in an environment based on computer networks. Note similar characteristics with an additional effect on the interaction due to the distance and a particular anonymity. The more people get to know and establish friendly relations among themselves, the easier it will be to encourage them and to be promotive of the efforts of everyone to achieve a group goal. This leads to the development of interaction for success. Positivity helps to activate learning communities that contribute to success. (28-29)

If there is no cooperation within the group of students, only those who have a greater ability to self-education can successfully complete the full learning course to the end. Others interrupt him because they find themselves in a situation of failure. Therefore, collaboration/cooperation can be taken as a basic principle of the system. In this case, most of the training activities are carried out collectively and remotely, therefore, it must be supported by appropriate means, in addition, methodological and motivational support is needed: a clear definition of goals, community's excitement, intermediate and final synthesis, gap measurement.

3 Results and Discussion

Creating a collaborative environment, immersion in the subject helps students quickly accustomed to the lesson, to establish a contact with the partners of the group and when discussing, quickly work up and announce the goals and objectives of the lesson, which will motivate them to continue their work with deeper interest. Collaborative environment develops mutual understanding. Mutual understanding is that all participants in the training group have similar knowledge about the interaction process, similar views, suppositions, and assumptions, i.e. sharing the same ideas by the whole group. We assume that during the lessons there will be situations when you have to deviate from the planned material and answer questions that students consider most important for themselves at this stage of the lesson. This will require the teacher to have a deeper knowledge of the material. (30-32)

It is necessary to pay attention of teachers to:

- involvement in collaborative learning: the ability to critically reflect, react to the use of new approaches, compare with current practice, discuss their effectiveness and plan further use in their lessons.

For this purpose, an individual strategy is successfully applied - a class-group-audience, which allows teachers to:

- understand and master the skills to work on the updated methodology based on goal-setting, helicity, differentiation;
- discuss and share new ideas of education, new types of planning.

4 Conclusion

The theoretical analysis of the key concepts of the study of this problem allowed us to define the definition as follows, "Collaborative environment is a trust-based form of the organization of employment in which students work together, collectively constructing, producing new knowledge and linked together by the need to communicate with each other to solve the task set and the disclosure of their potential."

When creating a collaborative environment in the educational process, students' educational and cognitive motivation is increased; anxiety level, fear of being unsuccessful, incompetent in solving certain tasks are decreased; the study skills are higher in the group, the effectiveness of acquirement and actualization of knowledge, in the joint performance of the task.

Thus, the collaborative environment develops mutual understanding, that is, all participants in the group have the same knowledge about the process of interaction, similar views, suppositions and assumptions, that is, the whole group's understanding of the same ideas.

In this regard, the significance of the collaborative environment in higher education is manifested in the fact that:

- the student is much better at learning;
- can communicate with other members of the team;
- can correctly and logically show his knowledge.

Thereby, in the process of social contacts between students, an educational community is created that possesses certain knowledge and is ready to receive new knowledge in the process of communicating with each other, joint cognitive activities, which contributes to the successful formation of the student's personality.

Literature:

1. Rau W, Heyl BS. Humanizing the college classroom: Collaborative learning and social organization among students. *Teaching Sociology*. 1990; 18:141-55.
2. Gokhale AA. Collaborative learning enhances critical thinking. *Journal of Technology Education*. 1995; 7(1):22-30.
3. Gvishiani DM. *Kratkiy slovar po sotsiologii [Concise Dictionary of Sociology]*. Moscow: Politizdat; 1989.
4. *Pedagogical dictionary*. Moscow; 2015.
5. Bruffee KA. *Collaborative Learning: Higher Education, Interdependence, and the Authority of Knowledge*. Baltimore, MD: Johns Hopkins University Press; 1993.
6. Dillenbourg P. Ed. (What do you mean by collaborative learning? *Collaborative Learning: Cognitive and Computational Approaches*. *Advances in Learning and Instruction Series*. Oxford: Elsevier; 1999.
7. Dyachenko VK. *Sotrudnichestvo v obuchenii. O kollektivnom sposobe uchebnoy raboty [Cooperation in training. On the collective method of teaching]*. Moscow: Nauka; 1991: 24-57, 60-81.
8. Russell J. *Formyi organizatsii obucheniya [Forms of organization of training]*. 2013.
9. Avouris N, Komis V, Margaritis M, Fiotakis G. An environment for studying collaborative learning activities. *Journal of Educational Technology & Society*. 2004; 7(2):34-41.
10. Swink M. Building a collaborative innovation capability. *Research Technology Management*. 2006; 49(2):37-47.
11. Sun J, Chen A, Yeh K, Cheng Y, Lin Y. Is Group Polling Better? An Investigation of the Effect of Individual and Group Polling Strategies on Students' Academic Performance, Anxiety, and Attention. *Journal of Educational Technology & Society*. 2018; 21(1):12-24.
12. Dauzhanova VR. *Vliyanie kollaborativnoy sredy na rezul'tativnost uroka [The influence of the collaborative environment on the effectiveness of the lesson]*. *Pedagogicheskiy dialog*. 2013; 45-6.
13. Artamonova E. *Kompetentnostnyiy podhod k formirovaniyu pedagoga v usloviyah modernizatsii obrazovaniya [Competent approach to the formation of a teacher in the context of modernization of education]*. *Vospitanie shkolnika*. 2018; 1.
14. Gedro GK, Kosova EA. *Kollaborativnoe vzaimodeystvie uchastnikov upravleniya izmeneniyami protsessov vuza pri strategicheskoy i operativnoy planirovani [Collaborative interaction of participants in the management of changes in the university's processes in strategic and operational planning]*. *Universitetskoe upravlenie: praktika i analiz*. 2007; 5:16-25.

15. Danciu AR, Strat VA. Strategic planning at the level of Higher Education Institution. 8th International Strategic Management Conference. 2012; 58:1-10.
16. Woods DM, Chen KC. Evaluation techniques for cooperative learning. *International Journal of Management & Information Systems*. 2010; 14(1):1-6.
17. Scager K, Boonstra J, Peeters T, Vulperhorst J, Wiegant F. Collaborative learning in higher education: Evoking positive interdependence. *CBE Life Sci Educ*. 2016; 15(4).
18. Xu J, Du J, Fan X. Students' Groupwork Management in Online Collaborative Learning Environments. *Journal of Educational Technology & Society*. 2015; 18(2):195-205.
19. Le H, Janssen J, Wubbels T. Collaborative learning practices: teacher and student perceived obstacles to effective student collaboration. *Cambridge Journal of Education*. 2018; 48(1):103-22.
20. Daniels ED, Walker GB. *Working Through Environmental Conflict: The Collaborative Learning Approach*. Westport, CT: Praeger; 2001.
21. Veenman S, Denessen E, Van den Akker A, Van der Rijt J. Effects of a cooperative learning program on the elaborations of students during help seeking and help giving. *Am Educ Res J*. 2005; 42:114-51.
22. Marjanovic, O. Learning and teaching in a synchronous collaborative environment. *Journal of Computer Assisted Learning*. 2002; 15(2):129-38.
23. Pauli R, Mohiyeddini C, Bray D, Michie F, Street B. Individual differences in negative group work experiences in collaborative student learning. *Educ Psychol*. 2018; 28:47-58.
24. Chang Z. Student Satisfaction, Performance, and Knowledge Construction in Online Collaborative Learning. *Journal of Educational Technology & Society*. 2012; 15(1):127-36.
25. Van Eijl P, Pilot A. Using a Virtual Learning Environment in Collaborative Learning: Criteria for Success. *Educational Technology*. 2003; 43(2):54-6.
26. Levy P. *L'intelligence collective. Pour une anthropologie du cyberspace [Collective intelligence. For an anthropology of cyberspace]*. Paris: Edition La Découverte; 1997.
27. Webb NM. Peer interaction and learning in small groups. *International Journal of Educational Research*. 1989; 13(1):21-39.
28. Onwegbuezie AJ, Collins KMT, Jiao QG. Performance of cooperative learning groups in a postgraduate education methodology course. *Active Learn High Educ*. 2009; 10:265-77.
29. Laal M, Ghodsi SM. Benefits of collaborative learning. *Social and Behavioral Sciences*. 2012; 31:486-90.
30. Bayhonova SZ. Upravlenie kachestvom obrazovaniya na osnove kompetentnostnogo podhoda [Management of the quality of education based on the competence approach]. *Menedzhment v obrazovanii*. 2010; 4.
31. Martín-Gutiérrez J, Fabiani P, Benesova W, Meneses MD, Moraa CE. Augmented reality to promote collaborative and autonomous learning in higher education. *Computers in Human Behavior*. 2015; 51(Part B):752-61.
32. Järvelä S, Häkkinen P. How to Make Collaborative Learning More Successful with Innovative Technology. *Educational Technology*. 2015; 45(5):34-9.

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LANGUAGE PERSONALITY IN THE CONTEXT OF JOURNALISM (MASS MEDIA)

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Abstract: The concept of language personality is considered a conceptual setting for studying media discourse. Additional concepts of speech personality and speech behavior are introduced. As parameters, descriptions are highlighted as the qualitative characteristics of the speaker's language personality itself (type of language personality, type of speech culture, communication strategies, and tactics, language features, gender characteristics, levels of communication, speech behavior scenario) and genre organization parameters of media discourse (compliance with the "format", linguistic-cultural script, repertoire of genres). The authors concluded that such a multicomponent model will allow to fully describe one or another linguistic personality of media people consider factors determining its speech behavior.

Keywords: language personality, speech personality, speech behavior, media discourse, media persona.

1 Introduction

The role of the media has now increased enormously. Publicistic discourse has an increasingly tangible impact on various areas of life. The language and text of the newspaper already become the object of interdisciplinary research. Meanwhile, an interest in language personality as a dynamic, evolving phenomenon is found. The study of publicistic discourse allows expanding the understanding of language personality.

Currently, the concept of language personality as applied to communicators, to the initiator of the text, the addresser, and the addressee has not been sufficiently studied. The study of language personality is usually associated with the category of the author of an artistic text as with the image of the author.

The institute of mass media plays a significant role in the linguistic and social life of a modern person; life is being mediated - known as the logic of reasoning his contemporaries repeat the terminology and conceptual apparatus of the "person from the TV". What is not in the media, as is well known, is not in life.

2 Materials and Methods

The concept of linguistic identity was represented by Yu. N. Karaulov at the end 1980s in the monograph "Russian language and language personality". He drew on the term "language personality" proposed by V.V. Vinogradov in the work "On artistic prose" (1930), dedicated to the speech of a person sci-fiction.

On the one hand, the emergence of the concept of linguistic personality is a natural result of the increasing interest of the humanities and social sciences in the human personality and its value, on the other hand, linguistics takes a new level of development, which is characterized by an anthropocentric approach to language learning.

The basic category of the concept of Yu.N. Karaulov (1) is a linguistic personality or "a set of abilities and characteristics of a person, which condition the creation of his speech works (texts)". In the concept of linguistic personality, the connection of language with the individual consciousness of the individual, with a view of the world, is fixed. Therefore, the researcher separates the structure of the linguistic personality into three levels but emphasizes their interpenetration:

- 1) zero, or verbal-semantic (lexical-grammatical);
- 2) the first, or linguo-cognitive;
- 3) the second, or motivational.

The first level is responsible for the production of texts, verbalization of thoughts in acts of communication. On the second "are" concepts that make up the individual picture of the world. The third characterizes the motives and goals of text-generation, which, as a result, determine the hierarchy of meanings in the language model of the world of the personality.

Without a complete and complex understanding of these three levels, it is difficult to understand the language personality perfectly. Therefore, it is necessary, firstly, to correctly evaluate the lexical and grammatical system of a language personality (specific or differentiated descriptions), secondly, it is necessary to create on the basis of texts (discourses) language picture of the world, or thesaurus. Thirdly, to identify the real goals or motives of language activity.

Verbal-semantic level of characteristics language personality, although considered null, however, it is a necessary basis for its development and functioning. This characteristic formed from the lexicon of the individual: individual words, the relationship between them covers all diversity of their grammatical-paradigmatic, semantic-syntactical and associative links. The individuality of this characteristic is determined by not only the degree of possession of this skill but also a violation of the normative rules of word formation, grammar and pronunciation. The given level allows us to describe the formal means of certain meanings.

Linguistic-cognitive level describes the characteristic for a linguistic person a picture of the world and its special hierarchy of values, which is formed by experiencing a number of environmental circumstances. Cognitive characteristics are associated with the intellectual sphere of man, his cognitive activity, involving thought processes. In the process of its development, each individual develops ideas and concepts that reflect his vision of the "picture of the world". In his mind, they are represented as a kind of hierarchy - a system of social and cultural values formed in the specific conditions of social experience and activity, which is reflected in the use of favorite colloquial formulas and individual speech patterns.

The motivational level of the structure of a language personality is more susceptible to individualization and contains "communicative-activity needs of the individual". It includes ideas about the meaning of being, the goals of life of humanity and man as a species, the variable part consists of individual goals and motives. At the given level, it is necessary to investigate the ratio of intentions, personality motives with its speech behavior, which allows the theory of speech acts. Separating clear levels of organization of a language personality, Yu.N. Karaulov (1) indicates that such a strict separation of levels is probably only theoretically, in practice, there are interpenetration and interaction of levels.

Subject's readiness to use language in its activities can be called speech (language) ability. A.A. Leontyev (2) defined this ability as a set of psychological and physiological conditions that ensure the assimilation, production, and adequate perception of linguistic signs by members of the (given) linguistic group. He examines the process of generating the utterance (discourse), highlighting in it three phases of the intellectual act of the personality: orientation and planning of speech and non-speech actions, the formation of an action plan in speech form, control and correction of vocal acts.

Based on the psychological concept of A.A. Leontyev (2), G.I. Bogin (3) developed a parametric multicomponent model of speech ability. As parameters, he identifies the most important aspects of the language (phonetic, grammatical, lexical) and the main types of speech activities (speaking, listening, writing, reading). The levels of speech ability are arranged in accordance with the actual development of speech ability in ontogenesis or in the educational process, focused on the relatively complete learning of the language. G.I. Bogin (4) identifies five levels of

speech ability, unfolding in the direction from the lowest to the highest:

1. The level of correctness, which implies the knowledge of a sufficiently large lexical stock and the basic structural regularities of the language and thus allowing to build statements and produce texts in accordance with the elementary rules of the language.
2. The level of interiorization, which includes the ability to realize and perceive the statements in accordance with the internal plan of the speech act.
3. The level of saturation, allocated from the point of view of intension in the speech of the whole diversity, the whole wealth of expressive means in the field of phonetics, grammar, vocabulary.
4. The level of adequate choice, assessed in terms of compliance used in the expression of language means in the field of communication.
5. The level of adequate synthesis, considering the correspondence of the text generated by the personality to the whole complex of meaningful and communicative tasks laid in its basis.

According to the theory of the language personality of Yu.N. Karaulov (1), behind each text, stays a language personality which owns the language system. Similarly, behind the journalistic discourse stays also a language system.

Creation and perception of the text are based on three levels: verbal-semantic, linguo-cognitive and pragmatic. After analyzing these levels, it can be concluded that at different levels the types of the language personality in journalistic discourse appear in different ways.

1. At the verbal level, the addresser uses lexical and syntactic methods, thereby attracting addressees to take part in the discourse. In journalism, the vocabulary is distinguished by a strong evaluative coloring, nouns, and adjectives have a negative or positive load. Thus, the sender accurately and clearly expresses his thoughts.

The verbal-semantic characteristic is made up of the lexicon of the individual — the entire vocabulary and phrases that he uses in natural verbal communication.

2. At the cognitive level, a “picture of the world” is formed, reflecting the values of a person. Compound an individual picture of the world with a general picture of society forms a conceptual picture of the world.

Cognitive characteristics associated with the intellectual sphere of the person, cognitive activity a person suggesting thought processes. Each individual in the process of its development ideas and concepts are developed which reflect his vision of the “picture of the world”.

3. The last level is pragmatic, reflecting the intentions of the addressee. This is the most difficult level in the structure of language personality. The main objective of journalistic discourse at this level is to convince the addressees.

The pragmatic characteristic is determined by the goals and objectives of communication - the speaker's intention, his interests, motives and concrete communicative attitudes.

The language personality level model reflects a generalized personality type. In this culture, there can be many specific language personalities, they differ by variations in the meaning of each level in the personality of the composer. Thus, language personality is a multi-layered and multicomponent paradigm of speech personalities. Whereby, the speech personality is a language personality in the paradigm of real communication, in the activity. At the level of the speech personality, both the national-cultural specificity of the language personality and the national-cultural specificity of communication itself are manifested.

The content of linguistic personality usually includes the following components:

- 1) value, ideological, the component of the content of education, i.e. value system, or life meanings. The language provides an initial and in-depth view of the world, forms that linguistic image of the world and a hierarchy of spiritual ideas that underlie the formation of a national character and are realized in the process of linguistic dialogue communication;
- 2) culturological component, i.e. the level of the development of culture as an effective means of increasing interest in the language. The attraction of facts culture of the language being studied, associated with the rules of speech and non-speech behavior contributes to the formation of skills of adequate use and effective impact on a communication partner;
- 3) personal component, i.e. that is the individual, deep, that is in every person.

The parameters of language personality have only just started to develop. It is characterized by a certain stock of words that have a particular rank of the frequency of use, which fill in abstract syntactic models. If models are typical enough for a representative of a given language community, then the lexicon and speech patterns may indicate its belonging to a certain society, indicate the accomplishment level, type of character, indicate gender and age, etc. The language repertoire of such personality, whose activity is connected with the fulfillment of a dozen social roles, should be learned with regard to the speech etiquette adopted in society. The linguistic personality exists in the space of culture, reflected in language, in the forms of social consciousness at different levels (scientific, everyday, etc.), in behavioral stereotypes and norms, in objects of material culture, etc. The decisive role in culture belongs to the values of the nation, which are concepts of meanings.

There are other concepts of language personality. So, S.N. Plotnikova (5) highlights in it the following components: 1) a speaking person is a personality, one of those activities is a speech activity; 2) an actual language personality is a personality who manifests himself in speech activity, has a set of knowledge and ideas; 3) a speech personality is a personality who realizes himself in communication, chooses and implements one or another strategy and tactics of communication, the repertoire of means; 4) communicative personality is a specific participant in a particular communicative act, actually acting in real communication.

The study of the linguistic personalities of media personality, i.e., people who have become widely known due to the presence in the texts of the media, has relevance and significance. Media people, popularized and even mythologized in media discourse, become part of the picture of the world to mass audiences, opinion leaders, can influence decision making in various areas, so it is important to understand how their media images are formed.

Media personalities are present in the discourse of the media as their own personalities, through information about events, episodes of their life, and as linguistic personalities, i.e., they manifest themselves in texts. Thus, researchers of the media discourse have access to information about extralinguistic factors that influence the language personality, as well as an array of texts that can be analyzed from the point of view of the used language means.

However, to solve the problems of linguistic studies devoted to media discourse, the theory of language personality is insufficient. Moreover, analysis schemes, which are based on a consistent study of the levels of the structure of a language personality, can lead to incorrect conclusions.

The fact is that the personality, its actions, and statements in the discourse of the media are affected by the discourse conditions that influence, firstly, the deeds and statements, and secondly, invariably lead to changes in the original texts generated by the

participants in the discourse. It turns out that the texts available to researchers cannot reflect the verbal-semantic level of the structure of the linguistic media personalities, and cannot serve as a complete material for the analysis of the first, cognitive level. (6-7)

Consider these discourse conditions in more detail. First, they are related to the technical aspects of preparing media materials for publication. Only a small number of printed interviews, television and radio programs provide the audience with the opportunity to evaluate the speech of media people in their original form: as a verbatim transcript of a dictaphone recording or on the air. But even in these cases, the media have the opportunity to intervene, change directly the statements or impressions about it, using the visual range, additional effects. The rest of the materials provided to a mass audience include the speech of a media personality in a modified form. In the case of the publication of interviews in print or electronic publications, this is due to the inevitable distortion of the original text of the statements when translating it from oral to written. On television and on the radio, the changes are related to the time-keeping.

In addition, changes to the texts of statements may be stylistic in nature, in particular, the elimination of coarse language. The media as a whole is endeavoring to adjust speech, to its standardization. This is connected with the typological aspect: in quality media, for example, the language is more rationed, and the tabloid press allows some liberties, as in the author's texts, and in a direct speech of the heroes of the interview.

It is no secret that intentional changes in the style or the actual content of the initial utterance often take place in order to support one or another media figure. This can occur, for example, during the coordination of the text of the interview with the hero or his press service.

The technical aspect also influences the behavior of a person placed in a media discourse. Dictaphone, radio microphone or camera have different effects on people: an inexperienced interviewee can get lost, seem much less competent than they actually are. Prepared speakers know the answers journalists want - the phenomenon of fast-tapping of P. Bourdieu in action - and build the statement accordingly, often by missing important details, exaggerating, distorting information. (8-9)

As the researchers note, the very concept of "language personality" is still not precisely defined, which is associated with the complexity and multi-level nature of the problem itself. (10) In language personality, philosophical, sociological and psychological views are being refracted on a socially significant combination of physical and spiritual properties of a person. In linguistics, "language personality" refers to the personality of a speech - a person as a native speaker, taken from his ability to speak, i.e. the complex of the psychophysiological properties of the individual, allowing him to produce and perceive speech works. (4)

A non-rhetorical approach to discourse has emerged that reveals a text-generating chain of an event - a fact - an addresser - a text - an addressee - a picture of the world. At the linguistic level, the subject of study and understanding of political media texts becomes the embodiment of thought in speech through argumentation, composition, verbal and non-verbal means. Indicative of the non-profile genre in the formation of rhetorical modality: identical rhetorical features have the texts presented by speeches, addresses, modified interviews, televised debates, videos, billboards and stretch marks, traditional journalistic materials (informational notes, reports, interview). (11)

In the analysis of political discourse, the concept of a linguistic personality as an expression of the verbal experience is also involved in the discussion.

The appeal to the topic of the human factor in the language contributed to a change in the paradigm of linguistics. There was a transition from the study of linguistics proper to the study of anthropological linguistics, in the center of which stands a

person with his own mental features, forms of social existence and cultural activities. (12-13) The ideas of anthropocentricity penetrate the science of language, which views a person from the perspective of cultural linguistics.

Speech behavior is the essential characteristics of personality. The attempts to identify the distinctive features of speech behavior and speech activity led to the emergence in the science of a new object of study - the language personality (LP).

The cognitive aspects of the functioning of the personality, the human intellect are manifested in the language, therefore, considers G.Ya. Solganik (14), one can speak of a person only as a language personality, as a person embodied in a language. The linguistic personality, according to the author, is made up of the abilities of a person to carry out various types of speech-thinking activity and to use various kinds of communicative roles in conditions of social interaction with each other and the world around them. This universal category has an outlet for such human qualities as disinhibition, creativity, independence, the ability to build a dialogue with a company, to join the modern world civilization development processes and improve human society.

The problem of language personality development, human speech behavior concerns both linguists and teachers who understand that uncoupled from the theory of language personality, from its multi-level organization, without conversion to the principles of its formation and structure, it is impossible to create an effective model for learning languages. (15-16) However, it must be noted that so far scientists have not proposed clear requirements for the formation of the language personality, which, however, does not stop either linguists or didacticists who are constantly in search.

In his study "The language circle: personality, concepts, discourse" V.I. Karasik (17) identifies five aspects in a person's speech organization: 1) language ability as an organic opportunity to learn how to communicate in speech (this includes mental and somatic features of a person); 2) communicative need, i.e. targeted orientation, orientation on communicative conditions, on participants of communication, speech community, culture-bearers; 3) communicative competence as a developed ability to provide communication in its various registers for optimal achievement of a goal, a person masters the competence, while abilities can only be developed; 4) linguistic consciousness as an active verbal "reflection in the inner world of the outer world"; 5) speech behavior as a conscious and unconscious system of actions that reveal the nature and way of life of a person.

Language ability and communicative need to act as prerequisites for mastering the language and communication, communicative competence as a manifestation of language consciousness in the choice of means of communication. The most important component of the speech organization of a person is the linguistic consciousness. (5)

The language personality is a kind of full-fledged representation of the personality, containing within itself both mental, and social, and ethical, and other components, but refracted through its language and discourse.

3 Results and Discussion

In non-standard communicative situations, the language personality is very rare (especially in the context of mass media). Basically, speech activity is carried out according to previously known scenarios. The situation itself and the role that we play in it set certain boundaries. By having in your arsenal, a set of publicly acceptable norms of speech tactics, language personality chooses those that are more expressing its individuality. The analysis of speech behavior, in this case, implies a mandatory reliance on components of a communicative situation (addresser, addressee, their social roles and intentions; chronotope, the subject of the speech, etc.) that determine the speech behavior scenario.

The types of speech behavior reflect primarily the levels of communicative competence. K.F. Sedov (18) distinguishes three such types (conflict, centered and cooperative), each of which includes two subtypes. Speech behavior of linguistic personalities within a given level of communicative competence may vary. The difference in language forms the expression of illocutionary act is determined by the peculiarities of the individual style of the participants of communication. Among the parameters for the differentiation of discursive behavior are strategic preferences within the framework of phatic speech behavior, which reflect the originality of human education, the specificity of his speech "biography". For this, we first single out the level typology of the forms (varieties) of speech behavior according to the nature of harmonization/disharmonization of communicative interaction within the framework of interaction. The main criterion here is the ability of the participant to communicate to harmonize their speech actions with the speech actions of the communicative partner (19).

So, K.F. Sedov (18) distinguishes three types of speech strategies in a communicative conflict and on their the basis is three types of language personalities: invective (demonstrates lower semiotic character of speech behavior: communicative manifestations here are a reflection of emotional and biological reactions), courteous (characterized by a high degree of semiotic character of speech behavior, which is caused by speaker's inclination to the etiquette forms of social interaction) and rational-heuristic (in a situation of conflict he relies on rationality; negative emotions are expressed indirectly, often in the form of irony).

In addition, speech behavior is also determined by the level of communication preferred by the language personality in a particular communicative situation. G.I. Bogin (3) identifies the following levels of communication as primitive, conventional, manipulative, standardized, gaming, business, spiritual. Of course, each person, in accordance with the speech situation, builds his communication on more than one level or jumps from one level to another. However, in a situation of public dialogue one level more often dominates. As for the mass media discourse, here, the most common are primitive, conventional, manipulative, standardized, and gaming levels of communication with the recently dominated standardized, manipulative, and gaming communication. Each of the levels, to one degree or another, both characterize the speech image of media personnel as a whole and determines the speech behavior scenario of the language personality, which actively forms the "speech portrait" of the latter.

The modern media space offers great opportunities for the analysis of language personalities - the participants of the mass media discourse, media personalities. With the relative diversity of the models of language personality description that exist today, the most relevant to the tasks of the study of mass media discourse is, in our opinion, the model by M.A. Kancher (20), who suggests talking about three aspects of the description of a language personality: stylistic, communicative, and linguistic-culturological. These parameters form the basis of the three-component model for describing the media language of media persona that was developed by us.

So, a possible model for describing a language personality of media persona can have the following components:

- analysis of the speech behavior of language personality in the stylistic aspect, supplemented by the qualification of belonging of the language personality to a certain type of speech culture and its gender characteristics; (21)
- analysis of communicative-pragmatic speech behavior advanced by the description of the "personality complex" of the language personality and the level of communication that the language personality chooses; (22)
- analysis of language personality's speech behavior in the cultural aspect, suggesting a comparison of speech behavior with national traditions or traditions of different cultures adopted in a given culture in order to identify national elements in the language personality's speech,

complemented by the characteristics of the genre parameters of the media discourse and the identification of the susceptibility of the degree of the compliance of the media persona's speech behavior to the program's "format", as well as the repertoire of genres is characteristic of the language personality. (23)

Due to the technological, social and personal aspects of the media, the mass media outputs the interaction of language and perception with a qualitatively new level of representation of real reality, and the essence of mass-media discourse considers perception as a creative process of considering how a person directs his attention and studies objects, selects the necessary from accessible information. (24) At the same time, linguists consider a different degree of unity of language and perception. Instead of concentrating on their own linguistic material, L.A. Khuranova (25) considers that it necessary to correlate the linguistic data with sensorimotor human experience, that is, the linguistic material should be analyzed against the background of biological, psychological, cultural and social.

The social factor in the functioning of the media is manifested in their connection with the economy, politics, institutional practices, etc., but social positions, the interests of the addressees of media texts not only reflect the reality but and encoding it, transmit it to a certain perspective. (26) Media, informing about certain events, submit them in the appropriate angle as to form reflection-constructivist reality. This reality is determined by the processes of mediatization, consisting of the transformational role of the media. In other words, the mass media modify the facts during their collection, processing, and transmission.

The essential for media discourse is the differentiation between individual and social orientation. Individual orientation refers to the satisfaction of various human needs in providing comprehensive information to determine the fact in existence of certain phenomena, as well as their significance and direction of development; the social direction is considered as the targeting of a wide audience, different sectors of society. (25)

Consequently, due to the orientational interaction of perception, language, and mass media, media discourse appears as one of the methods of reflection-constructivist creation of reality with consideration for the state of the linguo-cognitive and motivational levels of the language personality.

The linguo-cognitive level of the language personality is represented by the view of the world, concepts, and schemes of their interaction: initially, general structures are created that allow a person to determine their place in the world, and then separate referents, among whom an attitude is established for the purpose of performing certain activities. (25) The view of the world is interpreted as the image of the world, reflected in the most general plan. In the given aspect, the universal and individual (subjective) components of the view of the world are contrasted, a correlation between social and personal acquired subjective experience is established. (27)

From the point of view of the means of activation distinguish sign-oriented, language, and media world view. The sign-oriented reflection of the view of the world in a certain tradition is considered as a model of the world. Under the language view of the world, the representation of the cognitive activity of different groups of people is understood, which is conditioned by historical, geographical, and cultural factors within a single objective world. (28) The media view of the world is a continuous information product activity, in which the mental activity is dematerialized, which is aimed at knowledge of the world, as a result of the constant externalization of the content of consciousness of individuals, which becomes part of the consciousness or pictures of the world of many people as a result of its actualization in media texts. (29)

The segmentation in the view of the world is carried out through the use of mental structures of different degrees of generalization:

- binary oppositions based on the opposite signs that they have perceptual origins (social categories your/stranger, close/distant, internal/external);
- concepts that are considered as operational content units of memory, conceptual system and the language of the brain, the whole view of the world represented in the human psyche, that is, as an ethno-socio-psycho-lingo-cultural phenomenon. (30)

4 Conclusion

Mass media discourse, as a process and result of the linguistic personality, has three levels of the organization - media-orientated, linguo-cognitive and motivational, which are in a hierarchical relation. Each level has its own peculiarities regarding the affirmation of the language personality in the socio-cultural space of contemporary media discourse, and together they subordinate the organization of the media discourse to four structural elements, ranging from general orientation, the establishment of referents and inter-referenced ties, and ending with the design of the sequence of events.

Being one of the active forms of cognition of reality, language gives us a real image of the world, which man has been striving to comprehend for many centuries. Based on this, there was a problem of studying the language personality, which is the core of the view of the world.

Everything that has been said about the personality until now gives grounds to interpret it not only as part of a voluminous and multifaceted understanding of personality, not as just one of the perspectives of its study, along with, for example, "legal", "economic", "ethical", etc. "personality", but as a kind of a full-fledged representation of personality, containing within itself both mental, and social, and ethical and other components, but refracted through its language, its discourse. Already in the very choice of a linguistic personality as an object of linguistic psychology, there is a need for an integrated approach to its analysis, the possibility, and necessity of identifying, on the basis of discourse, not only its psychological features, but philosophical and ideological prerequisites, ethnonational characteristics, social characteristics, historical and cultural origins. Thus, the study of language personality inevitably involves in the sphere of interests of linguists those questions that unite specialists who study a person from different points of view.

The concept of "language personality" is closely related to a number of other concepts, such as "linguistic view of the world", "value-based view of the world", "values", "cultural concepts", "communicative competence", etc. Thus, the concept of "language personality" is becoming one of the basic concepts in the framework of the social and cultural approach to the teaching of foreign languages.

Culture and society, language and culture, language personality, intercultural communication, social and cultural activities, linguistic social and cultural competence are scientific categories that are closely interconnected and interdependent. The problem of the formation of a language personality acquires a pronounced interdisciplinary character. Knowledge of the language and the formation of the personality and these processes have a deep connection with each other.

Literature:

1. Karaulov YuN. Russkiy yazyk i yazykovaya lichnost [Russian language and language personality]. Moscow; 1987.
2. Leontyev AA. Rechevaya deyatelnostyu [Speech activity]. Moscow: Prosvetshenie; 1977.
3. Bogin GI. Kontseptsiya yazykovoy lichnosti [The concept of the language personality] [dissertation]. [Moscow]; 1982.
4. Bogin GI. Model yazykovoi lichnosti v ee otnoshenii k raznovidnostyam tekstov [The model of language personality in its relation to the varieties of texts] [dissertation]; 1984.

5. Plotnikova SN. Yazykovoe, diskursivnoe i kommunikativnoe prostranstvo [Linguistic, discursive and communicative space]. Vestnik IGLU. 2008; 1:131-136.
6. Golev ND. Yazykovaya lichnost kak nositel yazykovoy sposobnosti [Language personality as a carrier of language ability]. Lingvopersonologiya: tipy yazykovykh lichnostey i lichnostno-orientirovannoe obuchenie. Barnaul; Kemerovo; 2006.
7. Filippova TN, Sheminova NV. Yazykovaya lichnost: problemy statusa i formirovaniya [A linguistic person is an emotional person. Linguistic identity: problems of status and formation]; 2007.
8. Hlyuzova NYu. Massmedia kak sredstvo formirovaniya mediakompetentnosti vtorichnoy yazykovoy lichnosti [Mass media as means to form second language person's media competence]. Magister Dixit. 2012; 3:143-147.
9. Gryshchenko O. Linguistic personality: Multiplicity and fake. Zbirnik naukovih prats. 2016; 7:105-110.
10. Adonina LB, Fisenko OC. Yazykovaya lichnost kak tsennost i nositel obshechelovecheskih, etnicheskikh i individualnykh tsennostey [Language personality as a value and carrier of universal, ethnic and individual values]. Aktualnye voprosy sotsialno-psihologicheskikh issledovaniy. 2015; 25-28.
11. Alekseeva EA. Kontseptsiya yazykovoy lichnosti v issledovaniyah diskursa SMI [The concept of linguistic identity in studies of media discourse]. Vestnik Novosibirskogo Gosudarstvennogo Universiteta. 2013; 12(6):79-85.
12. Rublik TG. Yazykovaya lichnost i ego struktura [Language personality and its structure]. Vestnik bashkirskogo universiteta. 2007; 12(1):105-107.
13. Stolyarov DG. Yazykovaya lichnost, kommunikativnaya lichnost, kommunikativnyy tipazh. [Language personality, communicative personality, communicative type]. Teoreticheskie i prikladnye aspekty izucheniya rechevoy deyatelnosti. 2009; 4:217-222.
14. Solganik GYa. Stilistika publitsisticheskoy rechi. Yazyk SMI kak ob'ekt mezhdistsiplinarnogo issledovaniya [The style of journalistic speech. Media Language as an object of interdisciplinary research]. Moscow; 2004.
15. Vitkovskaya LB. Yazykovaya lichnost zhurnalista i problemy sotsiokulturnogo vozdeystviya SMI [The language personality of the journalist and the problems of socio-cultural impact of the media]. Mediynnye strategii sovremennogo mira. 2012: 392-394.
16. Ilyasova RS. Culturological aspect of the linguistic personality study; 2016: 49-52.
17. Karasik VI. Yazykovoy krug: lichnost, kontsepty, diskurs [Language circle: personality, concepts, discourse]. Volgograd; 2002.
18. Sedov KF. Rechevoe povedenie I tipy yazykovoy lichnosti [Speech behaviour and types of linguistic personality]. Ekaterinburg; 2000.
19. Sedov KF. Tipy yazykovykh lichnostey po sposobnosti k kooperatsii v rechevom povedenii [Types of linguistic personalities by the ability to cooperate in speech behavior]. Problemy rechevoy kommunikatsii. 2000: 6-12.
20. Kancher MA. O trekh aspektakh opisaniya yazykovykh lichnostey [On three aspects of describing linguistic personalities]. Ekaterinburg; 2000.
21. Shakhnarovich AM. Linguistic Personality and Linguistic Ability. Language – System. Language – Text. Language – Ability. Moscow; 1995.
22. Bell A. Language and the media. Annual Review of Applied Linguistics. 1995; 15:23-41.
23. Lunt P, Livingstone S. Language and the media: An emerging field for social psychology. In: Giles H, Robinson P, editors. The New Handbook of Language and Social Psychology. 2nd edition. London: John Wiley; 2001.
24. Ukhova LV. Parametry otsenki effektivnosti tekstov massovoy kommunikatsii [Effectiveness assessment parameters of mass communication texts]. Yaroslavl State Demidov University Bulletin. Humanitarian Sciences. 2009; 2:63-67.
25. Khuranova LA. Ponyatie "yazykovaya lichnost" kak fakt vzaimosvyazi i vzaimoobuslovlennosti yazyka i lichnosti [The concept of «language personality» as a fact of interconnection

and interdependence of language and identity]. *Yazyk: istoriya i sovremennost*. 2017; 2:128-140.

26. Skulimovskaya DA. O roli yazykovoy lichnosti v rechevom akte: yazykovaya lichnost preduprezhdayushego [On the role of linguistic personality in speech act: the linguistic personality of warner]. *Izvestiya altayskogo gosudarstvennogo universiteta*. 2014; 2-2(82):197-201.

27. Yanmurzina RR. Yazykovaya lichnost: rechevoy portret lichnosti [Language personality: speech portrait of a person]. *Aktualnyie voprosyi universitetskoy nauki. Sbornik nauchnyih trudov*. 2016: 594-602.

28. Voronova NG. Kachestvo yazykovoy sposobnosti kak osnovanie tipologii yazykovyih lichnostey [The quality of language ability as the basis of the typology of linguistic personalities]. *Aktualnyie problemyi gumanitarnyih i estestvennyih nauk*. 2010; 12:467-469.

29. Vorobyova VV. Kontseptsii i urovnevaya model yazykovoy lichnosti [Concepts and level model of language personality]. *Novoe slovo v nauke i praktike: gipotezyi i aprobatsiya rezultatov issledovaniy*. 2013; 6:52-57.

30. Ukhova LV. Model opisaniya yazykovoi [The model of describing the linguistic personality of a media-person]. *Nauchnyii rezultat*. 2016; 1(7).

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JUDICIAL LAW MAKING MECHANISMS AS A SOURCE OF LAW

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Abstract: The separation of powers into legislative, executive and judicial branches does not mean that the courts have no possibility of law making. A different position on this issue, if it is logically consistent, should argue that, with the separation of powers, only legislative acts can be sources of law and not only judicial but also executive power acts cannot be sources of law. Meanwhile, the strictest separation of powers between the legislative and the executive ones does not exclude the right of executive power to carry out law-establishing activities on the basis of and pursuant to the law. There is no reason to challenge the law making credentials of the executive power as such, and the discussion can only go about the nature of these credentials and the place of executive power acts in the system of sources of law.

Keywords: judicial law making, separation of powers, source of law, judicial discretion, court's explanations.

1 Introduction

Since the emergence of the State, enlightened human beings tried to find the best combination between the need for social regulation, the imperious claims of the state apparatus and the possibility of the free development of society. Theologians, philosophers, scientists sought the answer to one of the most difficult questions of social existence: how to reconcile the nature of state power with the need for individual freedom. The creation of several scientific concepts subsequently united in a single doctrine under the common name of "Theory of separation of powers" became some kind of answer to this question. This theory gradually evolved and transformed into a kind of imperative of modern statehood.

In this case, the position of V.S. Nersesyants (1), who, for reasons of separation of powers, does not challenge the law making of executive power but, for the same reasons, denies judicial law making, seems to be illogical. Moreover, this position is simply refuted by the fact that in common law countries in the context of separation of powers, judicial precedent is a source of law and was previously considered the main source of law.

In essence, the opinion that, in European Continental law countries, the judicial precedent is allegedly not recognized as a source of law, nothing changes in this matter. Even if the dominant doctrine in Continental law did not recognize precedent as a source of law, and even if it really was not such, the essence of the separation of powers cannot change depending on "juridical geography." In common law countries, the separation of powers does not interfere with the law-establishing activities of superior courts, and in continental law countries, the division of powers cannot interfere with judicial law making.

V.S. Nersesyants (1), in terms of the principle of separation of powers, is against the recognition of judicial practice as a source of law. He argues that the court deals exclusively with law enforcement, not law making. In his opinion, with the defectiveness of the legislation and with the complexity and the atypical nature of a case under consideration, the court only carries out the law enforcement (antilegislative) interpretation of the law from the standpoint of the right itself.

Given the current desire of lawyers in all countries to rely on the law, the creative role of judicial practice always or almost always lays behind the interpretation of the law. (2,3) The reference to the general principles of law does not change anything in this matter. After all, the legislative and executive powers, as well as the judiciary, take into account and should

take into account in their activities the general objective principles of law. Moreover, it does not follow from this that the parliament deals only with the interpretation of the constitution from the standpoint of the law itself and that the executive authorities only interpret the laws using the same general principles of law. In addition, the very concepts of justice, formal equality, and freedom that V. S. Nersesyants attached in the content of the law, imply a certain law-making role of the court in a given law enforcement activity. After all, they pass through the legal awareness of a given judge, who is a carrier of a given legal culture. This does not mean that these principles of law may vary depending on the legal awareness and legal culture of a judge. The objective principles of law cannot be realized directly. They are always implemented via specific subjects in a specific socio-economic, cultural, and political environment of a given society and state. If these general objective principles of law always and everywhere were to have a strictly defined embodiment, then the legislation of the countries as a whole should have been the same. However, as we see, there is no such thing anywhere. Therefore, without being changed, the principles of law may have their own specificity with respect to the current law of a given country. Such specificity of the objective principles of law must be resulted by the equally objective conditions of life of a given society and state. This specificity is expressed not only in legislation but also in justice. It is justice that "launches" the mechanism of protection of legal values, i.e. genuine law becomes an effective regulator of social relations. According to Karpov (4), ultimately, it is an independent and strong justice that can make the law a sovereign and social institution regardless of the discretion and arbitrariness of state power including the discretion, and sometimes arbitrariness expressed in legislative and other legal normative documents.

The most important of all law enforcement practices is judicial one since the action or inaction of an official can be appealed in court. Even legal normative acts, which infringe upon the rights and legitimate interests of citizens and organizations, can be appealed. It is in court, during the consideration of specific cases and disputes that the legislation undergoes the most serious examination regarding its defectiveness, a reflection of the needs of social development, justice, rationality, compliance with fundamental human, civil rights and freedoms.

The court is an important element of the mechanism of law formation, its approbation and comparison with the primary source of law, i.e. real life and real relationships. The court creates living law, specifies it in relation to individual life situations, achieves the exact individual meaning of legal norms, and finds an individual measure of freedom and justice. The court measures the proportions, the harmony of the general prescriptions of legal normative acts and other sources of law (for example, customary law), rights, freedoms, and obligations of participants in legal relations. (5, 6)

2 Materials and Methods

Judicial discretion is based on two contradictions: first, there are various kinds of conflicts within the actual positive law system itself; second, a contradiction between positive law and social reality. The current positive law is in principle not capable of being fully adequate to a dynamically developing, infinitely diverse social practice. However, this contradiction serves as a powerful impetus for the development of law. Moreover, the first who should perceive, evaluate and respond to it is the court itself as an independent public institution of state power called to protect the rights and freedoms of citizens, to resolve various kinds of social and legal conflicts in society by legal means.

Judicial discretion has its limits. O.A. Papkova (7) identifies the following criteria for limiting judicial discretion:

- 1) statutory provisions;
- 2) rules of statutory interpretation;

- 3) specific circumstances of a case;
- 4) principles of expediency;
- 5) category of justice.

Statutory provisions are the first but far from the only criterion for limiting judicial discretion. A court cannot be absolutely bound by law since the independence of the judiciary allow it to interpret law from the standpoint of legal, in particular, constitutional principles on which justice is built. (8, 9)

What is the specificity of judicial law making different from the law-making activities of the legislative and executive powers?

First, it should be noted that the judiciary does not have a specific, well-defined scope of legal regulation. This is due to the fact that the judiciary does not extend to a specific, strictly limited range of social relations but to any legal relationship (with some exceptions, for example, cases and disputes that fall within the competence of the Constitutional Council in Kazakhstan, etc.) including those not regulated by the current law.

Secondly, judicial law making has a close relationship with judicial discretion, which means the judge's ability to choose between two or more legal alternatives. Such a relationship, according to Y.V. Semyanov (10), is that judicial law making is initiated via judicial discretion, the result of which is a new interpretation of the existing legal norms, which can later become universal. Judicial law making is based on the objective character of judicial discretion due to a number of reasons including gaps in law and statutes. In addition, a prerequisite of judicial discretion, its "legal basis" is the hypothesis of the legal norm, the content certainty of which impacts the extent of freedom of the judiciary establishing the factual circumstances and the meaning of the legal norm. (10, 6, 11)

The legislator's discretion is a consequence of directly established law making competence. Judicial law making, on the contrary, is largely derived from the necessity and permissibility of judicial discretion.

Thirdly, judicial law making is not of a political nature. This apolitical nature has two aspects. The first one is that the judiciary is independent of political parties and movements. Their programs, which are not implemented in the legislation, do not (should not) have any significance for the court. As already noted, the court protects the interests of the law as an independent value and should not be subject to momentary changes in the political environment. Only when the program slogans of the party that won the elections were enshrined in the legislation, they serve as a basis for resolving court cases and disputes. The court must take into account political reasons that can be derived from logic, public confidence or statutes and while respecting the separation of powers, beware of applying considerations of economic and social policies that are usually the prerogative of parliament. (12)

The second aspect of the apolitical nature of judicial law making is connected with the fact that the court always deals with relations that already exist in reality, with certain facts and circumstances. Unlike parliamentary law making, which is directed to the future, the court is always connected with the affairs of the past. Judicial law making can only adequately reflect social realities, while legislators do not only reflect them but also order, direct and regulate their development, stimulate and promote the formation of new relations. Similar and other specific characteristics of parliamentary and judicial law making reveal various aspects and levels of their state and legal impact on social relations.

Fourthly, judicial law making is not connected with the court's own initiative but with appeals of interested persons waiting for a lawful and reasonable resolution of a particular case. Thus, the court is deprived of the opportunity to independently choose the subject of legal regulation. In connection with this feature of judicial law making, V.I. Anishina (9) notes that a prescription becoming a precedent arises not from the judge's own initiative

but from existing legal relations. That is, the source of its nature is the need for legal regulation stemming from concrete vitally determined circumstances and not the theoretically justified need for the legal regulation of any legal relationship. In this regard, such regulation has one undoubted advantage over the legislative one: it is timely and does not allow social conflict to remain unresolved when awaiting the adoption of relevant norms by legislators. It is flexible because it allows taking into account the real circumstances of each specific case, whereas legislators' prescriptions may not be a fair and acceptable way to resolve a conflict in given cases. (9, 13, 14)

Fifth, judicial law making is of subsidiary and compensatory nature. The judiciary does not have its own clearly defined scope of legal regulation. The executive power, however, issues regulations when the need for this is directly indicated in statutes, or in accordance with the general norm that defines the competence of the body as a whole. Judicial law making is usually not planned in advance. It receives legitimization not due to the fact that it is provided for by someone's subjective will but by objective reality. Judicial law making, as a rule, takes place where there are gaps, collisions or other defects of the already existing regulatory material to be applied. If non-contradictory legislation adequately reflects the need for a legal resolution of a disputed case, then there can be no place for the judicial law making. It takes place only where it is necessary to go beyond the norms of the current positive law. According to O.N. Vasilenko (15), distributive interpretation, analogies (especially the analogy of law), judicial discretion, direct application of general provisions and principles of the constitution are the ways and forms of the exit of courts from the boundaries of positive law and the formulation of the so-called "living law."

Judicial lawmaking is neither strictly subordinate nor equal to the law making of other branches of power. In this case, subsidiarity does not imply amendments to legal acts or by-laws. Judicial practice as a source of law can only compensate for defects in regulations of the legislative and executive powers; it complements the existing law as a whole and is its relatively independent segment.

Such a compensatory role of judicial law making does not mean that it can be completely eliminated by improving the quality of published legal acts and by-laws. This can significantly reduce the need and, accordingly, the prevalence and volume of judicial law making but it cannot be completely avoided. This is due to many reasons. The main reasons are as follows:

- 1) dynamism, volatility of social relations;
- 2) language of law; the multifunctionality of law enforcement and especially judicial practices.

Sixthly, another criterion for distinguishing judicial and parliamentary law making is the breadth and depth of the scope of legal regulation. These and other criteria will help in resolving the task of delimitation and determination of the roles of the court and parliament in the adequate legal regulation of all areas of social activity that need it.

It is generally recognized and objectively grounded that the norms in the Romano-Germanic legal system are more general in comparison with the norms in the countries of Anglo-American law. For an English court, statutory norms appear rather as some general principles than rules for a direct application when resolving specific cases and disputes. R. David (1964) stressed that statutes, according to the traditional English concept, was not considered a normal form of expression of law. The judges, of course, always applied statutes but the norms they contain were finally adopted and fully incorporated into the national legal system only after they were repeatedly applied and interpreted by the courts to the extent that the courts established. (16, 17, 18)

Modern legislation is characterized by the existence of the so-called normative framework (general provisions), which imply the regulation of a given issue only in general terms. Therefore, there is a need for judicial creation of concretizing norms, which

are a manifestation of both judicial discretion and judicial law making in general. All this allowed scientists to raise the topic of "delegation" of normative power to the court on the part of legislators. (15, 19)

3 Results and Discussion

Judicial law making is a certain level of concretization of law and its approximation to the needs of legal regulation of specific life cases. The general and abstract nature of legislative norms, especially the use of so-called "judgmental concepts," initially imply their certain concretization in the course of law enforcement. Legislators, in turn, create rules not from scratch. Statutes are largely a concretization of the provisions of the constitution. Executive power issues by-laws on the basis and in pursuance of legislation; thereby it develops and specifies them. Final (definitive) acts in this chain of concretization are judicial acts. This is because only the court can change or cancel a judicial decision on the request of interested persons and not on its own initiative.

Unlike the court, legislators use induction when they search for commonly used rules, i.e. "law in general, for all occasions." However, legislators do not have the unlimited ability to foresee and are unable to determine what is infinite. It is known that induction itself does not give reliable knowledge, and therefore, law making alone is not able to solve the problem of adequate legal regulation. (4)

A.I. Boytsov (20), when considering the advantages of judicial precedent, notes that in many respects, judges are better law makers than legislators are. While legislators solve thousands of cases at once, in bulk, without a special discussion of each of them individually, using only general ideas and considerations, judges systematically borrow their material from life and for life. Judges experienced in the current law, first, are competent specialists, the arbitrariness of whom, to a much greater extent than it concerns the legislative power, is limited by law as well as by cassation courts and supervisory authorities. Secondly, they make their decisions when discussing each issue in adversary processes. (20) One cannot demand from general statutes what it is unable to give, i.e. that it should embrace the entire legal life of society in its smallest details so that it would be able to oversee the living diversity and eternal variability of activities. To give general guidance, to enter the activities of the court into the necessary limits, to indicate the ways and means of action to it — this is what legislators can do. (21)

Law is formed not only by all three branches of power but also by society. Even the state as a whole is not a monopolist in law making. Law is an important component of society as a self-organizing and self-regulating system. (6, 22, 23) Society can express what is law but only state institutions (with the exception of the referendum) legalize such a right, give it the properties of formal certainty and normativity, and formulate it in final form. The judiciary is one of these institutions.

When forming legal norms, legislators should reflect in it the most significant social ties that exist in society. The source of legal norms cannot be only the will of legislators. Law making bodies build their activities on objectively emerging public relations. (19, 24)

The court acts as a buffer, a place of concentration and processing of legal information moving both from state to society and from society to state. When legal information moves from state to society, the court adapts it to the needs of resolving various social and legal conflicts, specifies this information related to subjective rights and obligations of the participants in a judicial process. According to E.V. Bogmatsera (19), the process of law formation does not end with the publication of legal acts and their entry into force. The final formation of legal norms, in his opinion, occurs after their socialization, their adaptation by public consciousness and their implementation in the behavior of participants in social communication. (19, 8)

During the reverse movement of legal information, from society to state, the judicial practice may foreshadow new legislative provisions, as initially the courts identify and develop new or unresolved legal issues that the legislature may subsequently enshrine in the form of legislative provisions.

In the case of separation of powers, which corresponds to a developed legal situation, neither legislators, nor the court, nor the administration has a monopoly to determine what law is in the context of a given relationship. Nevertheless, each branch of power must ensure legal freedom within its tasks and within the competence of the relevant authorities. In particular, the court cannot create statutes but it can claim them as law-violating and should give statutes an interpretation that is consistent with the principles of legal freedom. (8, 9) The court should not substitute legislators but legislators cannot force an independent judiciary to take an anti-legal position contrary to the provisions of the constitution. The judiciary has a real status of power from the moment when it receives the right to control the legal content of all regulatory legal acts issued not only by the executive but also by the legislative powers, i.e. when there is a real opportunity to actually show a system of checks and balances. (25-27)

Judicial law making, according to S.V. Lozovskaya (28), is an element of the system of checks and balances. Such a role of judicial law making is explained by the purpose of the judiciary and by the fact that it implements the abstract and concrete regulatory control in the course of the administration of justice. Y.A. Dmitriyev and G.G. Cheremnykh (29) even noted that the judiciary as a whole is part of the so-called system of checks and balances, a means of resolving disputes between government agencies.

In the authors' opinion, judicial law making refers specifically to checks designed to keep the activities of other branches of power within the framework of the constitution and law. Counterbalances are more political in nature than checks and are ways of countering one branch of power by the other one to uphold their powers and interests. Their use is mainly limited to the area of interaction between the executive and legislative branches of power. The judiciary, unlike the others, does not have (should not have) political interests; it is intended to protect only the interests of law.

In the context of the decentralization of law enforcement activities, G. B. Yevstigneyeva (8) considers the judiciary as the formation of a certain competing center for law making. Judicial law making can be considered as competing for only where and to the extent that the law making of other branches of power deviates from the provisions of the constitution and law. In other cases, it will be not competing but only subsidiary and compensatory in nature.

Thus, judicial law making is not always a manifestation of the system of checks, although this aspect is more characteristic of judicial law making rather than the law making of other branches of power. This is related to the administration of justice as the main and exclusive function of an independent judiciary.

The degree of stability of the rule of law of any state depends largely on the observance of the principle of uniformity of judicial practice. In the case of Kazakhstan, the requirement of the need for the uniformity of courts' considerations of cases is reflected in the Constitution of the Republic of Kazakhstan, according to which the Supreme Court (Article 81) is charged with exercising judicial review of lower courts' activities and giving explanations on judicial practice. The explanations of the Supreme Court of the Republic of Kazakhstan given in regulatory decisions are a way to unify judicial practice. The purpose of their adoption is for similar cases to be resolved in a similar way by all courts of the country. (30, 31) Due to the systematic publications, regulatory decisions resolve the most pressing, unclear, and controversial issues of certain categories of cases. The activities of the Supreme Court in this area are not spontaneous but permanent and systematic. This enables the formation of a single court practice via the long-term

development of a monotonous judicial resolution of similar cases.

Despite the importance of the explanations of the Supreme Court for the legal system, some authors still propose banning the Supreme Court to provide explanations on judicial practice issues. Therefore, A.I. Boytsov (20) come to the above conclusion on the assumption of the following chain of judgments. The interpretation, which is an element of a law enforcement process, is significantly different from the interpretation included in the system of law making activities. From this point of view, the Supreme Court could be deprived of the authority to give explanations of a normative nature while retaining its functions of generalizing the practice of lower courts, identifying common mistakes and developing recommendations for their elimination. Another more radical way is depriving the Supreme Court of the authority to give any explanations of a general nature. Unforeseen changes that require new solutions and approaches would overlap with the speed of a legislative response that could ensure timely development of optimal responses to the demands of the changing life and the dynamism of the legal system. If necessary, the legislature could adopt interpretative acts of a regulatory nature. (20)

Karpov (4), when recognizing that the explanations of the Supreme Court play the role of the source of law, nevertheless notes that they are the most directive and least judicial acts in all judicial practice. The explanations do not contain a sentence or decision form typical for the court; they lack the specific circumstances of a particular case. Explanations look like a typical act of a legislative or administrative body. If desired, a hypothesis, a disposition or a sanction can be found in these explanations as in legal norms. The fact that the regulatory role of the explanations of the Supreme Court was recognized was rather an administrative impediment to judicial practice than the recognition of the independent role of judicial practice in regulating social relations. (4, 24)

Indeed, these explanations of the Supreme Court are somewhat inconsistent with the nature of the judiciary but it is at least a great exaggeration to still call them "an administrative impediment to judicial practice." After all, these explanations are not given by the Ministry of Justice as an administrative body but by the court.

The Supreme Court takes regulatory decisions not in connection with the resolution of a particular case and the administration of justice but on the basis of an analysis and generalization of the law-enforcement practice of the lower courts. According to G. B. Yevstigneyeva (8), the fact that superior courts give abstract and general explanations is not consistent with the nature of the judiciary. She does not favor the abolition of this right of the Supreme Court but makes certain demands on such explanations in view of the nature of the judiciary. G. B. Yevstigneyeva (8) believes that from the point of view of the separation of powers, judicial law making is permissible only within the framework of the exercise of its specific function, i.e. resolving disputes about violated law. Judiciary, in the person of superior courts, can make law-making decisions without replacing legislators and remaining within the limits of judicial jurisdictional tasks. Consequently, the separation of powers is not contradicted by judicial law making as such but only by the law making activities of superior courts carried out by means of an abstract normative interpretation of the constitution or law. It is contradicted by "quasi-normative" acts of the judiciary issued as abstract normative interpretation. The nature of the judiciary implies only a specific normative interpretation of the constitution or law in connection with the resolution of a particular dispute. In other words, from the point of view of the separation of powers, only a specific (incidental) normative interpretation of the constitution or law is permissible, which results in a precedent of interpretation. Even if a "quasi-normative" act is issued, as is customary in some post-Soviet countries, for example, the explanation of the Supreme Court, this should be an explanation not prior to judicial practice but

generalizing legal positions already expressed via a specific regulatory interpretation. (8, 16)

Thus, the Supreme Court has the right to give explanations only on the issues of the already existing and not the intended law enforcement practice. For example, if the Parliament of Kazakhstan adopted a new legal act, which, in the opinion of the Supreme Court, may cause significant difficulties in its application by the courts, the Supreme Court is not entitled to explain this act until the generalization of relevant judicial practice for the courts. In addition, these explanations should concern only those issues of courts' application of statutes that have already arisen, e.g. in the cases when the courts interpret and apply the same rule of a new legal act differently during resolutions of similar cases.

Such an approach eliminates a certain discrepancy between the explanations of the Supreme Court and the nature of the judiciary. This approach is expressed in the following. First, explanations are given solely on issues that have arisen during law enforcement activities. Secondly, explanations are given on issues not of any law enforcement practice (such as prosecution, the practice of the agencies of the Ministry of Internal Affairs, etc.) but only on issues that arose during judicial practice when administering justice that is the main and exclusive function of the judicial branch of power. Thirdly, with this approach, the normative decisions of the Supreme Court will be aimed solely at clarifying past cases, and not at regulating eventual future contentious relations. Fourth, the role of the Supreme Court's own initiative in the issuance of regulatory decrees, which is not inherent in the nature of the judiciary, is diminishing. The explanations are given only as an adequate response to existing questions in judicial practice. The Supreme Court gives explanations as a judge resolving an atypical complex case in the context of defective legislation and has to execute law making when interpreting and applying such legislation to resolve a particular case that arose not at the initiative of the judge but at the request of the person concerned. Fifth, the Supreme Court does not develop explanations in view of its subjective will but in view of the existing norms and principles of law and taking into account the positions of lower courts. The Supreme Court issues normative decisions not on the basis of its own will alone, not in a self-governing manner, but by compulsory consideration of the already existing positions of lower courts. Thus, regulatory decisions are the result of the activities of the entire judicial system aimed at resolving legal issues that did not receive a direct answer from the law or were not affected by it at all. Of course, the explanations on the content are not a mechanical reflection of the provisions developed by judicial practice. On the contrary, explanations tend to prescribe solutions to legal problems that cause discrepancies in practice in order to bring them in uniformity. When reducing the disparities of lower courts' positions to a common denominator, the Supreme Court thereby develops its own position on a particular legal issue. The Supreme Court, which generalizes judicial practice throughout the country, has a much broader outlook than a court dealing with a specific, even if a typical, case. Sometimes, such analysis and synthesis reveal new semantic aspects of the applicable legal norms that may be overlooked by an individual judge resolving a particular case.

Unlike the law making of the legislative and executive branches of power, the law making of the Supreme Court is not purposeful. Such law making does not occur in connection with the desire of the Supreme Court to regulate certain relationships differently than the authorities of other branches of power did but due to defects of the current legislation, the dynamism and diversity of social relations. The Supreme Court does not carry out law making activity as such. It does not establish legal norms purposefully but within the framework of explanatory activities aimed at ensuring uniformity and due orientation of judicial practice.

Normative regulations are not a derived source of law. An act may not be derivative in the same manner as one branch of power is not derivated from another unlike the provisions

contained in this act. Normative regulations of the Supreme Court are of a subsidiary nature. The degree of novelty and of demand for normative regulations of the Supreme Court as a source of law is inversely proportional to the adequacy of legislation to the needs of society in legal regulation and to the internal consistency of the current positive law system. Also, it is directly proportional to the degree of reflection of these phenomena in judicial practice. Of course, not all flaws in the regulatory framework are reflected in judicial practice since only the most significant relationships for individuals are usually the subject of litigation. The important thing is the activity of citizens appealing to the court, their awareness of their rights, and the degree of their trust in the judicial system.

4 Conclusion

The main conclusions are presented below:

- 1) Judicial lawmaking does not contradict the principle of separation of powers. Judicial law making is based on the legal discretion of the court, the impossibility of the full adequacy of the legislation to the needs of resolving specific life cases, and the internal inconsistency of the system of existing positive law.
- 2) Characteristic features of judicial law making are:
 - Lack of clearly defined scope of legal regulation;
 - Judicial law making is largely derived from the necessity and permissibility of judicial discretion;
 - The court in its activities should be wary of applying considerations of economic and social policy;
 - Judicial law making is always connected with already existing facts of the past, and not with the formation of future new relations;
 - The court does not create legal norms on its own initiative, i.e. it creates them not purposefully;
 - Judicial law making is of a subsidiary and compensatory nature;
 - Judicial law making has a smaller scope than parliamentary one but it gains in depth and specificity.
- 3) Judicial law making is an important condition for the effective dynamic functioning of society, for the creation of a self-developing and self-regulating system of civil society.
- 4) Judicial law making in the system of checks and balances refers specifically to checks designed to keep the activities of other branches of power within the framework of the constitution and law. Balances, on the other hand, are more political in nature than checks and are mostly limited to the area of relations between the legislative and executive branches of powers.
- 5) The normative provisions of the Supreme Court as a source of law can be divided into three types: 1) derivative provisions (those that only specify the existing legal norms); 2) competitive provisions (those that clarify the provisions of an act on the basis of a legal instrument with greater legal force); 3) provisions which fill gaps in positive law (those that precede an act and reflect the needs of society in the legal regulation). The first type of provisions is largely a reflection of the lawfulness of judicial activities, the second one is a reflection of the independence of the judiciary, and also acts as a manifestation of the system of checks via judicial law making. The third type is a manifestation of the court as an agent for the implementation of the law as a self-adjusting system. It should be noted that these components are not detached from each other. They affect each other in one degree or another.

Literature:

1. Nersesyants VS. *Obshchaya teoriya prava i gosudarstva* [The general theory of law and state]. Moscow: NORMA; 2001.
2. David R. *Les grands systèmes de droit contemporains* [The major contemporary legal systems]. Paris: Dalloz; 1964 (ISBN 978-2247013791).

3. Sanders A. The characteristic features of the Civil Law. The Comparative and International Law Journal of Southern Africa. 1981; 14(2):196-207.
4. Karpov DV. *Sotsialno-pravovaya priroda sudebnoy vlasti* [The social and legal nature of the judiciary]. Vestnik Nizhegorodskogo universiteta im. N.I. Lobachevskogo. Seriya Pravo. 1997; 1:162-169.
5. Lile, W. Judge-Made Law. Virginia Law Review. 1929; 15(6):525-536. doi:10.2307/1065926.
6. Udartsev SF. Sud i pravotvorchestvo [Court and law making]. The international scientific-practical conference "The legislative process in the Republic of Kazakhstan: state and problems"; 1997; Almaty.
7. Papkova OA. Sudeyskoye usmotreniye v grazhdanskom protsesse I ego vidy [Judicial discretion in civil proceedings and its types]. Vestnik Moskovskogo Universiteta. Seriya 2. Pravo. 1997; 3.
8. Yevstigneyeva GB. *Sudebnyye resheniya kak istochnik prava* [Court decisions as a source of law] [dissertation]. Moscow; 2007.
9. Anishina VI. *Pravovaya priroda aktov sudebnogo pravotvorchestva* [The legal nature of judicial law making acts]. Zhurnal Rossiyskogo prava. 2006; 10(118).
10. Semyanov YV. *Sudebnoye pravotvorchestvo: voprosy obshchey teorii prava* [Judicial law making: issues of the general theory of law] [dissertation]. Russian State University of Trade and Economics; Moscow; 2006.
11. Strashun BA, editor. *Konstitutsionnoye (gosudarstvennoye) pravo zarubezhnykh stran* [Constitutional (state) law of foreign countries]. Vols. 1–2. 3rd edition. Moscow: BEK; 2000.
12. Boytsova VV, Boytsova LV. *Sudeyskoye usmotreniye* [Judicial discretion]. Gosudarstvo i pravo. 2000; 5.
13. Chirkin VY. *Konstitutsionnoye pravo zarubezhnykh stran* [Constitutional law of foreign countries]. 2nd edition. Moscow: Yurist; 2001.
14. Ovsepyan ZI. *Sudebnyy konstitutsionnyy kontrol v mekhanizme razdeleniya vlastey: teoreticheskiy aspekt issledovaniya* [Judicial constitutional review in the mechanism of separation of powers: the theoretical aspect of the study]. 1994.
15. Vasilenko ON. *Problemy ontologii i evolyutsii pravosudiya i form prava* [Problems of ontology and evolution of justice and forms of law] [dissertation]. Volgograd; 2000.
16. Abdrasulov YB. *Sudebnoye tolkovaniye norm zakonodatelstva v anglo-saksonskoy pravovoy sisteme* [Judicial interpretation of the norms of legislation in the Anglo-American legal system]. Vestnik KazGU. 2001; 4:134.
17. Pound R. Spurious Interpretation. Columbia Law Review. 1907; 7(6):379-386. doi:10.2307/1109940.
18. Himma K. Judicial Discretion and the Concept of Law. Oxford Journal of Legal Studies. 1999; 19(1):71-82.
19. Bogmatsera EV. *Pravoobrazovatelnyy protsess i rol v nom sudebnoy praktiki* [Law making process and the role of judicial practice in it] [dissertation]. Moscow; 2007.
20. Boytsov AI. *Sudebnaya praktika kak istochnik ugovnogo prava* [Judicial practice as a source of criminal law]. Saint Petersburg: Piter; 2003.
21. Kaldybayev A. *Otsenochnyye normy i sudeyskoye usmotreniye* [Judgmental norms and judicial discretion]. Femida. 2003; 6.
22. Fetishchev DV. *Teoretiko-metodologicheskiye problemy razvitiya sudebnoy vlasti v sisteme gosudarstva: istorikopravovoy aspekt* [Theoretical and methodological problems of the development of the judiciary in the system of the state: historical legal aspect] [dissertation]. Moscow; 2008.
23. Popov OV. *Teoretiko-pravovyye voprosy sudebnogo pravotvorchestva v Rossiyskoy Federatsii* [Theoretical and legal issues of judicial law making in the Russian Federation] [dissertation]. Kazan; 2004.
24. Topornin BN, editor. *Sudebnaya praktika kak istochnik prava* [Judicial practice as a source of law]. Moscow: IGI P RAN; 1997.
25. Mami KA. *Konstitutsionnaya zakonnost i sudebnaya vlast v Respublike Kazakhstan: osnovnyye tendentsii i priority* [Constitutional legality and judicial power in the Republic of Kazakhstan: main trends and priorities]. Moscow: Nauka; 2004.

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26. Gracheva YV. Sudeyskoye usmotreniye v ugolovnom prave [Judicial discretion in criminal law] [dissertation]. Moscow; 2002.
27. Marchenko MN, editor. *Obshchaya teoriya gosudarstva i prava* [The general theory of state and law]. Moscow: Zertsalo; 2000.
28. Lozovskaya SV. Pravovoy pretsedent: voprosy teorii i praktiki [Legal precedent: theory and practice] [dissertation]. Yekaterinburg; 2005.
29. Dmitriyev YA, Cheremnykh GG. Sudebnaya vlast v mekhanizme razdeleniya vlastey i zashchite prav i svobod cheloveka [Judiciary in the mechanism of separation of powers and the protection of human rights and freedoms]. Gosudarstvo i pravo. 1997; 8:49.
30. Alaidarov AA. Normative statements of Supreme Court of Republic of Kazakhstan as a basic source of law. European Applied Sciences. 2013; 2(2):204-206.
31. Agdarbekov T, Alaidarov AA. *Qazaqstan Respwblikasi Joǵarǵı Sotınń Qawlılarınń Zandıq Sıpatı Jäne Oraldıń Sot Töreligin Jüzege asırwdaǵı Tımdilik Röli* [The Legal Nature of the Judgments of the Supreme Court of the Republic of Kazakhstan and its Role in the Administration of Justice]. Qazaqstannıń ǵılımı men ömiri. 2018; 5(65):16-19.

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THE QUESTION OF INTEGRATION OF COMPETENCE AND META-COMPETENCE OF PRIMARY SCHOOL TEACHER

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Abstract: Transformational shifts occurring in society require the development of adaptive mechanisms for the system of higher vocational education in order to train specialists with the skills of socio-philosophical and psychological-pedagogical analysis, which allow them to create technologies that form the basis of the competence of the future specialist. Professional training of specialists in the context of the modernization of the education system consists in educating a new cultural person, harmoniously developed, combining spiritual wealth, moral purity, ready to work in a market economy, while maintaining the traditions of the ancestors. In the article, the basic requirements to professional competence and meta-competence of a primary school teacher, factors and the conditions influencing the development of professional competence of the teacher are considered.

Keywords: competence, meta-competence, primary school teacher, professional skills, education.

1 Introduction

In the Message of the President of the Republic of Kazakhstan Nursultan Abishevich Nazarbayev "Strategy" Kazakhstan-2050 "A new political course of the established state", the problem of reforming vocational education and training competent specialists is regarded as a priority, it is noted that knowledge and professional skills are key benchmarks of the modern education system, training, and retraining. Today, the educational system revises the goals of professional and pedagogical training of future professionals, updates the content of education, develops new curricula, adjusts programs, introduces innovative educational technologies, creates new methodological support. A modern competitive specialist must clearly understand the intrinsic value of education, be a "person in culture", use a person-centered approach and be motivated to further growth and self-education. In modern conditions, one of the most pressing is the problem of future specialists' preparedness for professional activity. (1)

In this regard, in the conditions of the reorientation of modern universities to the training of specialists, many problematic issues of organizational, methodological, psychological, pedagogical and methodical nature arise.

Close attention to the study of professional competences was paid in the framework of the Bologna process, at one of the seminars on the topic "Higher education based on learning outcomes - the Scottish experience" (Edinburgh, February 21-22, 2008), "... lack of clarity and uniform understanding in relation to certain key terms related to the introduction of learning outcomes (for example, "skills", "labor intensity", "conditional academic workload"), can hinder their effective implementation. (2)

On the issue of the formation of professional competencies in future teachers turned their attention, such scientists, as R.S. Eiger, N. Schaper, M. Lussault, M. Romainville, S. Hilde, B. Stahl, H. Sheper, C. Bridis, S. Adam, R.H. Dave, E. Simpson, A. Harroy, W.R. Dawson, T. Ferris, S. Aziz, V. Jungkind, R. Doleshal, K. Meretenes, and others. In Russian science, researches on professional competencies were studied by V.V. Baydenko, V.A. Bolotova, Yu.V. Vardanyan, V.N. Zimina, I.A. Zimnyaya, BB. Kraevsky, V.V. Serikov, V.A. Slastenin, O.G.

Smolyaninova, N.F. Talyzina, A.P. Tryapitsyna, I.D. Frumin, A.V. Khutorsky, V.D. Shadrikov, R.K. Shakurov, S.E. Shishov, and others.

A significant number of publications on the study of professional competence can be seen in the scientists of Kazakhstan such as A.E. Abylkasymova, M.Zh. Zhadrina, K.ZH. Aganina, B.K. Igenbaeva, and others.

The education system in the Republic of Kazakhstan is supported by normative and legal acts that project the importance of education as innovative, integrated with intensive research activities, as an interdisciplinary phenomenon in close connection with the needs of industry, the economy and the full humanization of society.

Modernization of education focuses on the reorientation of the assessment of the result of education from the concepts of "preparedness", "educatedness", "common culture", "mannerliness" to the concepts of students' competence and competence.

2 Materials and Methods

Conscious attitude to their activities involves positioning themselves as an independent subject of professional activity, able to assess the activities of other subjects through the prism of their own professional criteria. Without exaggeration, professional self-awareness is one of the main indicators of professional maturity of any specialist, including (what is important) and the teacher. The driving force of professional self-awareness is the general professional and individual practice of pedagogical activity.

The degree of professional self-perception is determined by the depth of the teacher's penetration into the professional essence, the comprehensiveness of the diverse manifestations of professional activity, the orderliness of knowledge about their own professional activities and the effectiveness of applying this knowledge to self-regulation of professional actions. The more fully the teacher realizes the laws of the profession in his work, the more credible is the professional self-portrait (which reflects both the unique world of the individual's professional orientations and the professional aspirations of the whole teaching community).

In order to understand his professional activity, the teacher needs professional reflection, through which he compares, analyzes, summarizes his actions and creates a holistic concept of his professional "I".

"Modern research on professional competence increasingly appeals to the phenomenon of reflection, regarding it as an informative element of the latter, and as a condition for its development." Apart from professional practice, reflection degenerates into fruitless self-digging, thinking about every step; leads to increased professional arrogance and loss of solid benchmarks of professional self-esteem. Reflection, that is, the teacher's awareness of the essential connections between the phenomena of his activity, involves, above all, a sufficient level of development of the activity itself; no less important is how the teacher relates to his own activities. Identifying and understanding the objective bases of activity is difficult, while for the teacher she acts as a boring work that does not affect the depths of the personality, and not as a mission, vocation.

Another condition for the implementation of reflection is the availability of means to objectively record the process of activity, making it the subject of special analysis, as well as the availability of methods for such analysis. In the majority of psychological and pedagogical studies, reflection acts as one of the components of competence or a factor of its development, in acmeology, it is considered procedurally. That is why O.S.

Anisimov and A.A. Derkach, characterizing professionalism as the ability to solve standard professional tasks, distinguish the following levels of professional activity: the establishment of an activity, the successful implementation of a fixed norm, the fulfillment of a norm with adequate reflection, reflexive follow-up of actions with problem fixation and norm correction, complete reflexive self-organization.

The concept of reflexive competence was also formed in acmeology, which is considered here from methodological grounds (O.S. Anisimov) and with the position of reflexive psychology (I.N. Semenov, S.Yu. Stepanov) as meta-competence, due to the knowledge of the mechanism of reflection (and possession), contributing to the adequate development of all other types of professional competence. Reflexive competence, by definition, S.Yu. Stepanov, this is "a professional quality of a person, which allows to most effectively and adequately carry out reflexive processes, to realize reflexive ability, which ensures development and self-development, contributes to a creative approach to professional activity, to achieving maximum efficiency and effectiveness".

This definition indicates a direct connection of reflexive competence with the achievements of the highest results in personal and professional development, that is, its acmeological nature. Defining a strategy for one's own development leads to constant self-development and a creative attitude towards professional activity. Reflexive competence is an acmeological phenomenon that contributes to the achievement of the highest results in an activity; it can be qualified as meta-competence. Meta-competence in the broad sense is a systemic property of an individual to reproduce himself in the basic life properties.

In addition to the term "meta-competence," such definitions as "meta-quality" and "meta-abilities" are used in the same sense.

Reflexive competence as a subject of scientific research requires deep methodological study, since the current state of development of the state, society, and economy requires the theory and practice of the formation of methodological and applied substantiation of the mechanisms for the formation of a twenty-first century human competence as an active subject of activity, to an independent and responsible decision-making).

Professional self-consciousness, as well as consciousness in general, is inseparable from the teacher's assessment-emotional self-perception. Therefore, the fundamental structural component of individual self-awareness is self-esteem.

The subject of professional self-esteem of the teacher is the creative process itself and various (including moral) aspects of professional behavior: everything that is significant for a given teacher and his creative environment in terms of the effectiveness of the professional activity. Thus, by professional teacher ideology, we understand that part of the individual regulatory and semantic sphere in which professional activity is reflected in the form of professional knowledge, evaluative attitudes towards professional activity and its regulatory legal system governing it. Understood in this vein, professional ideology serves as a direct guide to the practice of the existing ideas about the activities of the teacher. Therefore, it is logical to assume that professional behavior is determined to one degree or another by the features of professional ideology. The foundation of the teacher's professional ideology is meta-competence. The architectonics of meta-competence in the main components coincides with the structure of management activity based on the triad: "goal - action - result". From this it follows that the goal of higher education is the formation of the socio-professional competence of a specialist, which is reduced, on the one hand, to the sum of knowledge and skills, and on the other, it "cements" the systemic personal-professional quality, including meta-competence (universal competencies that provide effective implementation of all professional competencies and reflecting the level of specialist training to work with knowledge, creativity, and innovation), as well as the basic specially-professional competence. The main goal of higher education - the training of a specialist - a highly moral citizen with active

citizenship should be achieved by saturating the basic competence of the operating, motivational and behavioral components. Only a teacher with the qualities of meta-competence can realize his knowledge through the prism of professional self-awareness and self-esteem, that is, through the prism of professional ideology.

In modern conditions, the issue of raising the level of professional competence of a future teacher has become urgent. He thinks freely and actively, models the upbringing and educational process, independently inventing and implementing new ideas and technologies of training and education. First, a professionally competent teacher has a positive influence on the formation of the creative abilities of students in the process of educational work; secondly, achieving the best results in their professional activities; thirdly, it is able to realize its own professional capabilities. The conditions of the educational environment have become new, the content of education, the forms and methods of teaching are changing, the demand for the quality of knowledge increases, the structure of the lesson becomes more complicated - all this requires an increase in professional competence and the formation of the readiness of the future teacher to perform professional activities.

The teacher's professional competence is a complex individual psychological education based on the integration of experience, theoretical knowledge, practical skills, and significant personal qualities. To acquire competencies, the student must become the subject of this conscious activity. "Competence cannot be isolated from the specific conditions of its implementation. It also links the mobilization of knowledge, skills and behavioral attitudes that are customized to the conditions of a particular activity." (1, p83) Being competent means the ability to mobilize the knowledge and experience gained in a given situation.

Thus, a wide range of studies devoted to the study of professional competence, the characteristics of its development suggests that this problem is significant for modern pedagogical science and practice, is of interest to researchers.

For the formation of certain competencies, appropriate conditions are needed in which they manifest themselves. Competence develops, enriches, expands or strengthens, starting from the initial level. At the same time, pedagogical professionalism is associated with a high level of self-realization of individual characteristics, with individual handwriting, and an individual style of activity.

There are many definitions of "competence and skills", which are interpreted in various sources depending on the scope of their use, as in the S.I. Ozhegov's dictionary, competence (from the Latin *competens* - appropriate, capable) means a deep, thorough knowledge of the business, the essence of the work being done, the ways and means to achieve the goals, as well as the presence of relevant skills, and in the dictionary D.N. Ushakov (3) competence is defined as the range of issues, phenomena in which a person has authority, knowledge, and experience.

The term "competence," according to another source, the Webster dictionary, appeared in 1596, and the term came into scientific use from the American linguistics by N. Chomsky. Thus, in English, the term "competence" has one meaning, and in Russian two have "competence" and "skills". In modern scientific research, competence means the ability of an individual to carry out complex cultural-like actions.

Competence is an integrative personal resource that ensures successful activity due to learned effective strategies, competencies - specific successful strategies that ensure problem-solving, overcoming obstacles and achieving goals, and hence competence consists of competences, is provided by competences and is found in competences. (4)

The term "competence" in pedagogical science is used to determine a sufficient level of qualification and professionalism of a specialist, such a statement of the problem of studying the issue "skills" is considered in the works of academic teachers

(I.A. Zimnyaya, J. Raven, V.V. Safonova, R. White, N. Khomskiy, E.F. Zeyer, N.V. Kuzmina, A.K. Markova, A.Ya. Nayn, L.M. Mitina, G.K. Selevko, A.V. Khutorskaya, and others).

In the concept of competence, in which for the first time J. Raven (5) interprets the term as a phenomenon, emphasizing it as a system, notes, "... which consists of a larger number of components, many of which are relatively independent of each other... some components are more likely cognitive sphere, and others to the emotional... these components can replace each other as components of effective behavior" and that "before undertaking the assessment of someone's abilities, it is necessary to establish the values, hobbies or intentions of this individual... There is no point in trying to assess a person's abilities without regard to goals that are subjectively meaningful to him."

N.V. Kuzmina (6-7) considers competence as a "personality trait", which includes 5 elements such as special pedagogical, methodical, socio-psychological, differential psychological, autopsychological. According to A.K. Markova (8-9) competence - a combination of mental qualities, mental state, allowing a person to act independently and responsibly, possessing the ability and ability to perform certain labor functions.

According to I.A. Zimnyaya, (10) depending on how the concepts of "skills" and "competence" are defined, their relationship, the content of the competence approach itself can be understood. The preceding analysis of research in this area suggests that competence is a term about which there is still no unity and that there are two options for interpreting the relationship of these concepts, which are either identified or differentiated. According to competence is defined as:

- 1) the ability to do something well or effectively;
- 2) compliance with the requirements for employment;
- 3) the ability to perform special labor functions.

Thus, I.A. Zimnyaya, considering competence as "an actual, formed personal quality based on knowledge, intellectually and personally determined social and professional characteristics of a person, his personal quality," states that it is manifested not only in the adequacy of standard and non-standard solutions. tasks in professional activity, but also in social behavior and human actions. (10, p34-42) According to I.A. Zimnyaya, (11) competence is represented in the professional activity of a teacher in such categories as "readiness", "ability", "responsibility", "confidence".

Researchers V.A. Bolotov and V.V. Serikov, (12) considering competence as "a way of existence of knowledge, skills, education, contributing to personal self-realization, finding a pupil of his place in the world, as a result of which education appears to be highly motivated and personally oriented in the true sense, ensuring maximum relevance of personal potential, recognition of others and others self-worth," indicate the nature of competence, which, as a product of learning, turns into self-development and self-actualization of personality. These studies allowed to determine the characteristics of the competence model of education:

- 1) a description of the signs and the expected (planned) level of competence in a certain area;
- 2) determining the necessary and sufficient set of training tasks - situations, the sequence of which is built in accordance with the growth of completeness, problematics, concreteness, novelty, vitality, practicality, interdisciplinary, creativity, value-semantic reflection and self-assessment, humanitarian expertise of solutions, the need to combine fundamental and applied knowledge;
- 3) the process technology, including the sequence of presentation of tasks to the student (situations of various types and levels);
- 4) algorithms and heuristic schemes that organize the activities of students to overcome difficult situations;

5) technology maintenance, counseling, and support for students in the process of passing the program. This paradigm becomes significant for the training of specialists of the highest professional level.

Such an understanding of the essence of competence leads to the conclusion that competence and "professional competence" are the most important characteristic of a specialist, which is formed in the process of vocational training (A.A. Verbitsky, N.V. Kuzmina, A.Ya. Nayn, M.A. Choshanov, and others).

Studies of the competence phenomenon of the following scientists, O.L. Karpova (13) (adequate assessment of reality and the ability to apply knowledge), V.N. Vvedenskiy (14) (ability to apply scientific and practical knowledge), E.F. Zeyer (15) ("... not only cognitive and professional-pedagogical erudition, but also motivational, ethical, social and behavioral and learning outcomes") are more applicable to describe the level of preparedness of a professional school graduate.

On the issue of understanding professional competence, as noted by E.F. Zeyer and M. Rozenova, we attribute its integral characteristic, which includes several components or types of competence such as special, socio-communicative, personal-individual, auto-competence.

According to A.K. Markova professional competence varies by type, special, social and extreme, the first two are such abilities that relate to professional development and social responsibility of the individual, and extreme professional competence is necessary in those cases when there are suddenly complicated conditions in various technological processes.

Professional competence is a quality that is formed in the educational process; therefore, we consider the professional competence of a teacher as a subject quality, manifested in the design and implementation of activities with regard to qualification requirements.

Thus, under the pedagogical competence of a teacher, one can understand the unity of his theoretical and practical readiness for the implementation of pedagogical activity.

The competence of the teacher is determined by the ratio in his real work of professional knowledge, and skills, professional positions and personal qualities, self-actualization of pedagogical activity. It should be noted that in most sources, revealing the essence of professional competence, there is a focus on modern approaches of humanistic pedagogy in determining and shaping the teacher's professional culture, it is noted that humanistic motivation should prevail in the teacher's personality structure.

Thus, professional competence of a teacher is a complex individual-mental education based on social experience, theoretical knowledge, practical skills, and personal qualities, it is the ability to perform social and pedagogical functions aimed at opening up the inner potential for self-realization, self-improvement norms, standards, requirements. The pedagogical process and professional-pedagogical competence are interrelated and act on each other. The structural components of pedagogical competence should coincide with the components of the pedagogical activity, as a result of which the model of professional-pedagogical competence acts as the unity of its theoretical and practical readiness. Professional-pedagogical competence includes not only a set of knowledge and skills, which are the core of competence, but also a certain fusion of them with professional experience, teacher functions and necessarily significant personal qualities, values of a teacher, i.e. competence is wider than knowledge and skills, and is not their sum.

There are general cultural, socio-labor, informational, communicative competence in the sphere of personal self-determination, etc., as well as educational competence, which is defined as the ability to actively use the knowledge, skills, personal qualities that ensure successful training of students in one or several educational areas. Depending on the content of

education (academic subjects and educational areas), key such as meta-subject, general subject, and subject competences are distinguished. And competence is defined as 1) the terms of reference and rights provided by law, statute or agreement to a specific person or organization in dealing with relevant issues; 2) a set of certain knowledge and skills in which a person must be knowledgeable and have practical experience. Consequently, competence is what is claimed, or what is appointed as due to be achieved (certain sample). Competence is not limited only to knowledge or only to skills. Competence is a sphere of relationship that exists between knowledge and action in practice.

The group of competencies is distinguished in its research by I.A. Zimnyaya, a distinctive feature of this approach to the understanding of professional competence is that the person is considered as a subject of life activity and hence their characteristics such as motivational, cognitive, communicative, behavioral, value-semantic and emotional-volitional. So, communicative competence according to I.V. Andreyeva includes "knowledge, skills, and abilities in the field of organization of interaction and interaction in the business sphere, a unique fusion of theory and practice". (16) Subjective characteristics of communicative competence mean value orientations, perceptual skills, ways of personalization and interaction with the external environment of a person, i.e. "social competence". T.N. Antonova, E.A. Arnautova, G.G. Zubova, N.A. Razganova, S.A. Kozlova, O.A. Knyazev, S.E. Shukshina, L.F. Kupeckova, A.V. Zaporozhets, D.B. Elkonin, P.P. Schedrovitsky, A.P. Usova, and others. Determine the component structure of competencies with the following characteristics:

- competence in the field of independent cognitive activity, based on the assimilation of ways of acquiring knowledge from various sources of information;
- competence in the field of civil and social activities;
- competence in the field of political, legal, economic, environmental, aesthetic activities;
- competence in the field of social and labor activities;
- competence in the field of cultural and leisure activities;
- competence in the field of health preservation;
- competence in matters of gender and family values;
- competence in the field of spiritual and moral culture, ethnoculture, the culture of interethnic communication and tolerance.

Thus, from the set of understandings of the concept "competence" in the aspect of the professionalism of future specialists, we rely on research that allows us to get as close as possible to the issues of professional competence based on the study of personality-oriented approach in education and competence-oriented learning. The student-centered approach in the education system implies the implementation of a "student-centered approach" (I.A. Zimnyaya), competence-oriented learning, according to S. Adam, designed to provide an understanding of what is expected (for both teachers and students), i.e. reliance on the prospects of the profession. If personality-oriented learning is self-development and self-realization, supported by the personality's desire to master professional knowledge, skills, and abilities, then competence-oriented learning is associated with mastering a complex of competences in accordance with the choice of a particular profession. Here, to a greater degree, we must point out what competencies the future specialist masters in the regulation of his profession. (17).

3 Results and Discussion

Considering the concept of "meta-competence", we come to the conclusion that, firstly, it is the formation of new knowledge based on what was studied (S.A. Mikhachenko), (18) secondly, the development of universal ways of activity (E.V. Sizova), (19) thirdly, the super-system, supra-subject opportunities of a professionally-oriented personality (E.V. Rezhikova), (20) fourthly, the "supra-structural input", which influences the acquisition of professional skills (A.K. Samoylichenko, R.V. Malakhova). (21) Foreign researchers apply such a concept, considering meta-competence as a manifestation of, for example, "functional literacy" as "soft" skills (from English soft skills). (22) So, Harvard and Stanford point out that academic knowledge makes up only 15% of successful activities and successful education, therefore social and communication skills are necessary, thanks to which a person can learn to apply the obtained fundamental knowledge in practical and applied activities.

Studies of children of primary school age such as students of Nazarbayev Intellectual School, middle school No. 3 of Kokshetau and middle school of the regional center of Akmola region showed the following results (Figures 1-2):

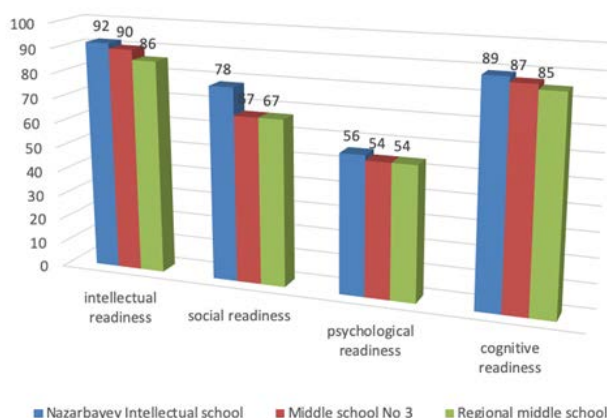


Figure 1. The Degree of Readiness to Learn in the First Quarter

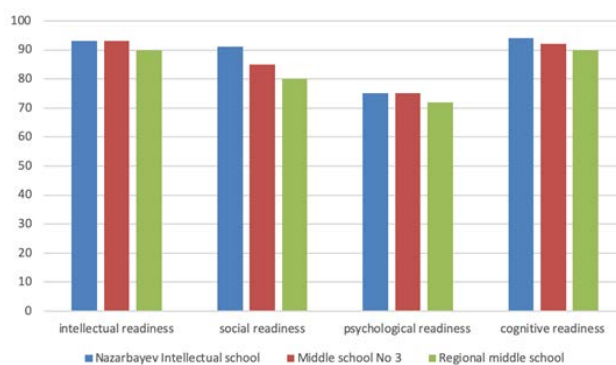


Figure 2. The Degree of Readiness to Learn in the First Quarter

The readiness of pupils of primary school age was studied in order to identify the degree of meta-competence, i.e. the assimilation by them of such skills that allowed the development of successful activities in this educational context. It is known that NIS (Nazarbayev Intellectual school) students are trained according to a special program that ensures the development of the “self” as a fundamental element in education, creative and search activity. In secondary school No. 3 of Kokshetau, a program of updated content of primary education has already been introduced, for example, the Center for Pedagogical Skills of Akmola Region and the Center for Advanced Training “Orleu” trained over 800 teachers in the region to update the content of education. As part of the updated content of primary education, criteria-based assessment techniques are used, forms of summative and formative assessment are applied, and short-term, medium-term and long-term strategies are planned for learning. The introduction of such, in our opinion, the subject of “Natural Science” will allow children to form the ability of analytical-synthetic mental activity, which favorably affects the quality of the mental activity. The use of group and individual work in the updated content of education contributes to the ability to work in a team, feel leadership in a given situation, accustom to responsibility, develops creativity (creativity), teaches positivity and curiosity.

Insufficiently high rates were observed in the pupils of the secondary school of the district, which was just beginning to introduce a program of updated educational content and still has traditional approaches to assessing students’ knowledge.

Thus, meta-competence is a new quality that develops on the basis of basic knowledge, which is learned with regard to the trainee’s social, intellectual, psychological and cognitive competencies. Such an attitude towards the formation of the meta-competence of primary school students is in the development of the “self” in educational activities, for example, when a student can offer several options for answering a given task (mathematics).

4 Conclusion

According to L.M. Ordoboyeva, (23) the differences between competence and meta-competence are in the ability to adjust rapidly, adapt to new conditions, readiness for continuous learning/education, readiness to transfer existing knowledge, skills, abilities to new objects of activity.

Meta-competence is a four-level system with various time intervals of digestibility.

Meta-competence always precedes competence. (24)

Meta-competencies serve to facilitate the acquisition of other competencies. (25)

Meta-competence is the willingness to continuously acquire knowledge and skills, and meta competency is the ability to think strategically and evaluate the educational situation. (26)

Literature:

1. The Message of the President of the Republic of Kazakhstan - Leader of the Nation Nursultan Nazarbayev to the People of Kazakhstan “Strategy “Kazakhstan-2050” - a new political course of the established state”; 2012.
2. Baydenko VI. Bolonskiy protsess: 2007-2009 gody. Mezhdunarodnyy Londonom i Levenom / Luvain-la-Neuvom [Bologna process: 2007–2009. Between London and Leuven / Louvain-la-Neuve]. Moscow: Issledovatel’skiy tsentr problem kachestva podgotovki spetsialistov; 2009.
3. Ushakova DI. Tolkovyy slovar’ russkogo yazyka [Explanatory Dictionary of the Russian Language]. Moscow; 1993.
4. Raven J. Kompetentnost’ v sovremennom obshchestve: vyyavleniye, razvitiye i realizatsiya [Competence in modern society: identification, development and implementation]. Moscow: Kogito-Tsentr; 2002.
5. Raven J. Pedagogicheskoye testirovaniye: Problemy, zabluzhdeniya, perspektivy [Pedagogical testing: Problems, errors, perspectives]. Moscow: Kogito-Tsentr; 1999.
6. Kuzmina NV. Ocherki psikhologii truda uchitelya [Essays on the psychology of labor teacher]. Leningrad; 1967.
7. Kuzmina NV. Sposobnosti, odarennost’, talant uchitelya [Abilities, giftedness, talent of the teacher]. Leningrad; 1985.
8. Markova AK. Psikhologiya professionalizma [Psychology of professionalism]. Moscow: Mezhdunarodnyy gumanitarnyy fond «Znaniye»; 1996.
9. Markova AK. Psikhologiya truda uchitelya [Psychology of teacher’s work]. Moscow: Prosveshcheniye; 1993.
10. Zimnyaya IA. Klyucheveye kompetentnosti kak rezul’tativno-tselevaya osnova kompetentnostnogo podkhoda v obrazovanii: avtorskaya versiya [Key competencies as an effective target basis of a competence-based approach in education: author’s version]. Moscow: Issledovatel’skiy tsentr problem kachestva podgotovki spetsialistov; 2004.
11. Zimnyaya IA. Pedagogicheskaya psikhologiya [Pedagogical psychology]. Moscow: Logos; 2000.
12. Bolotov VV, Serikov VV. Kompetentnostnaya model’: ot idei k obrazovatel’noy programme [Competency model: from idea to educational program]. Pedagogika. 2003; 10:8-14.
13. Proceedings from the International Scientific-practical Conference: Self-development of Human: Key Competences. Nizhny Novgorod: VGIPA; 2005.
14. Vvedenskiy VN. Modelirovaniye professional’noy kompetentnosti pedagoga [Simulation of professional competence of the teacher]. Pedagogika. 2003; 10:51-55.
15. Zeyer EF. Psikhologiya professiy [Psychology of the professions]. Moscow: Akademicheskii Proekt; Yekaterinburg: Delovaya kniga; 2003.
16. Andreyeva IV. Ed. Ekonomicheskaya psikhologiya [Economic psychology]. Saint Petersburg: Piter; 2000.
17. Selevko G. Kompetentnosti i ikh klassifikatsiya [competences and their classification]. Narodnoye obrazovaniye. 2004; 4.
18. Mikhaylichenko SA., Buryak YuYu, Afanaskova YuA. Metakompetentsii kak osnova uspeшной samorealizatsii vypusknikov na rynke truda [Meta-competencies as the basis for

successful self-realization of graduates in the labor market]. Belgorodskiy gosudarstvennyy tekhnologicheskiiy universitet imeni V.G. Shukhova; 2016: 94-101.

19. Sizova YeV. Razvitiye metakompetentnosti prepodavatelya inostrannogo yazyka v usloviyakh vnedreniya obrazovatel'nogo standarta Federal'nogo universiteta [The development of metacompetence of a foreign language teacher in the context of the implementation of the educational standard of the Federal University]. Filologicheskkiye nauki. Voprosy teorii i praktiki. 2018; 2(1):202-205.

20. Rezhikova EV. Proceedings from IV konferentsii «TRIZ. Praktika primeneniya metodicheskikh instrumentov» [IV Conference "TRIZ. Practice of application of methodical tools"]: Didakticheskiye osnovy formirovaniya metakompetentsiy [Didactic foundations of the formation of meta-competences]; 2012. Available from <http://www.metodolog.ru/node/1618>

21. Samoylichenko AK, Malakhova VR. Razvitiye metakompetentsiy studentov kak psikhologicheskaya osnova budushchey vostrebovannosti rynkom truda [The development of students' meta-competence as a psychological basis for the future demand for the labor market]. Sovremennyye issledovaniya sotsial'nykh problem; 2018.

22. Heckman JJ, Kauts T. Hard evidence on soft skills. Labour Economics. 2012; 19(4):451-464.

23. Ordoboyeva LM. Metakompetentsiya kak komponent sodержaniya professional'noy inoyazychnoy podgotovki studentov v yazykovom vuze [Meta-competence as a component of the content of professional foreign language training of students in a language university]. Vestnik Moskovskogo gosudarstvennogo lingvisticheskogo universiteta. 2014; 14(700):144-153.

24. Brown BR. Meta-competence: A recipe for reframing the competence debate. Personnel Review. 1993; 22(6):25-32.

25. Le-Deist FD, Winterton J. (What is competence? Human Resource Development International. 2005; 8(1):27-46.

26. Khutorskoy AV, Khutorskaya LN. Kompetentnost' kak didakticheskoye ponyatiye: sodержaniye, struktura i modeli konstruirovaniya. Proyektirovaniye i organizatsiya samostoyatel'noy raboty studentov v kontekste kompetentnostnogo podkhoda [Competence as a didactic concept: content, structure and design models. Design and organization of independent work of students in the context of the competence-based approach]. Tula: Izdatel'stvo Tul'skogo gosudarstvennogo pedagogicheskogo universiteta im. L.N. Tolstogo; 2008: 117-137.

Primary Paper Section: A

Secondary Paper Section: AM

THEORY AND PRACTICE OF PROFESSIONAL TRAINING OF FUTURE PRIMARY SCHOOL TEACHERS IN THE CONTEXT OF THE MODERNIZATION OF EDUCATION

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Abstract: Transformational shifts occurring in society require the development of adaptive mechanisms of the system of higher professional education in order to train specialists with the skills of socio-philosophical and psychological-pedagogical analysis, allowing to create technologies that form the basis of the competence of the future specialist. Professional training of specialists in the context of the modernization of the education system consists in educating a new cultural person, harmoniously developed, combining spiritual wealth, moral purity, ready to work in a market economy, while maintaining the traditions of the ancestors. In this regard, in the conditions of the reorientation of modern universities to the training of specialists, many problematic issues of an organizational, methodological, psychological, pedagogical and methodological nature arise.

Keywords: schoolteachers, modernization of education, future specialist, modern pedagogy, education system.

1 Introduction

A performing educational system relies on many conditions such as efficient training of teaching staff. Competent teachers are a prerequisite of an efficient educational process. It is very important to develop a constant and real relationship between theoretical knowledge and the educational practice of future teachers. Students, future teachers should be aware of the role they play in educating future generations and of the fact that what they teach is what learners acquire. The quality of the learners' studies is linked to the manner teachers know to present the teaching materials. The attainment of the educational process is directly connected to the quality of competences, knowledge, skills, and abilities used by teachers throughout the teaching activity.

In the Message of the President of Kazakhstan "Strategy 'Kazakhstan-2050', a new political course of the established state," Nursultan Nazarbayev regards the problem of reforming professional education and training competent specialists as a priority. He notes that knowledge and professional skills are key benchmarks of the modern system of education, training, and retraining. Today, the educational system revises the goals of professional and pedagogical training of future professionals, updates the content of education, develops new curricula, adjusts programs, introduces innovative educational technologies, creates new methodological support.

A modern competitive specialist must clearly understand the intrinsic value of education, be a "person in culture", use a person-centered approach and be motivated to further growth and self-education. In the modern environment, the problem of future specialists' preparedness for professional activity is one of the most pressing. (1)

In the article "Social modernization of Kazakhstan: twenty steps to the society of universal labor," Nazarbayev noted that the modernization of the education system in Kazakhstan is expedient in three main areas: optimization of educational institutions; modernization of the educational process; improving the efficiency and availability of educational services. (2)

The updated curriculum in Kazakhstan started in 2015, when, in accordance with order No. 159 of April 3, 2015, "On Pilot Implementation of the Updated Curriculum Content", in the

2015-2016 academic year, in the 1st grade, 30 pilot schools were identified. In these schools, the approval of the State Compulsory Primary Education Standard will be held. These are 17 urban and 13 rural schools including 4 small-size schools. 10 schools are with Kazakh as the language of instruction, 9 schools are with Russian as the language of instruction, 1 school is with Uyghur as the language of instruction, and 10 schools are mixed.

The main objective of the modern program is to integrate the educational space, the orientation of the national education system to the standards of world educational practice with the preservation of the best traditions and standards of national education.

The update of the content of education implies a shift from the traditional organization of the educational process, when, primarily, the content of education reflected in the curricula was prescribed (each of the developers tried to cover as much theoretical material as possible). This update is based on expected results, which are determined by educational areas and reflect the activity aspect, i.e. students "know, understand, apply, analyze, synthesize, and evaluate."

As part of the update of the content of education, the approbation of regulatory documents (standard program, educational and methodical complexes, textbooks, etc.), assessment systems (criterial, summative, and formative ones), advanced training courses, etc. will be carried out.

Along with the experimental work, the issue of training and retraining teachers capable of working on new methods is also important.

According to standard plans, the following subjects are introduced in primary school: natural science, knowledge of the world, information and communication technologies, level-based learning of languages.

The analysis of the scientific and pedagogical literature on the development of primary education in Kazakhstan showed that the issue of the history of national education was adequately explored (by A.I. Sembayeva, T.T. Tazhibayeva, K.K. Kunantayeva, G.M. Khrapchenkova, V.G. Khrapchenkova, G.K. Akhmetova, and others). The development of the primary school in Kazakhstan and aspects of the training and education of children of primary school age are presented in the works of A.K. Tlebaldiyeva, S. Maygaranova, A.K. Arenova, V.P. Karibzhanova, and others.

Traditional education was carried out according to the "teacher-student-teacher" scheme but modern education should be based on the principle "teacher-student-students."

Education affects not only the economy, but also the formation of personality and is aimed at democratization, humanization, humanitarization, computerization, informatization, and integration of society. Democratization is a way to manage the process of education, which creates a comfortable social environment for people to interact. Humanization of education is considered in the context of the ability of an individual to self-realize, to receive free and comprehensive development. The general cultural and sociocultural component of the concept of education means the humanitarization of society and individuals.

The "Information Kazakhstan 2020" and "Digital Kazakhstan" programs have become a real breakthrough for the education system. Computerization, informatization, and digitalization contribute to the introduction of innovative changes in education and is a process of using the latest information technologies in all areas of human activity. (3, 4)

The integration of education is considered from the point of view of the interaction of various forms and systems of education that contribute to the implementation of educational tasks at the

regional, national and international levels. At all levels of the implementation of educational tasks, there is a need for continuous improvement of education. It is known that the increase in efficiency is carried out in two main ways: extensive and intensive ones. The extensive method, which depends on the growth of the number of educational institutions, nevertheless did not become an indicator of the quality of education and in many countries has outlived. The intensive way (method) influences the increase in the labor productivity of the participants of the educational process on the basis of the use of the latest technologies and teaching methods.

Research scientist A.I. Rakitov (5) argued that as human activities become more complex, the amount of knowledge required for its implementation increases dramatically. With the transition to the modern stage of development, characterized by the increasing pace of technical and technological innovations, the amount of knowledge necessary for their substantiation, development, implementation, and dissemination should grow exponentially. (5)

Qualitatively new requirements for the education system, due to social and scientific-technical progress, become the measure of social welfare.

2 Materials and Methods

Modernization of the teacher training system, from the initial narrow-profile to continuous professional development based on studies of psychological and pedagogical science and the continuous use of innovative methods and tools in the education system is impossible without relying on the already existing experience in the world educational practice.

The Human Development for All and Everyone report of 2017 introduces new human skills in the 21st century and notes that by 2020, more than 1/3 of the knowledge and skills important for work will change. The mastering of skills should be part of a lifelong education process aimed at four criteria: critical thinking, collaboration, creativity and communication. (6)

Critical thinking applies logic and also relies on metaknowledge and broad criteria of intellectuality, such as clarity, credibility, accuracy, significance, depth, outlook, and justice. Creative imagination, value attitudes and, to a lesser extent, pronounced emotionality are also integral parts of critical thinking. (7)

Collaboration - the process of joint activity in any area of two or more people or organizations to achieve common goals, during

which there is an exchange of knowledge, training and the achievement of agreement (consensus). (8) Communication is a process of interaction between people, during which interpersonal relations arise, manifest and are formed. (8) Creativity is the ability of a person to think outside the box, make decisions, create something new and generate lots of ideas. (8)

Along with the outlined characteristics of future specialists related to the formation of meta-competences, the distinctive features of the new teaching culture are the ability for professional self-development, tolerance, the ability to put oneself in the place of another, to understand and accept another, and to be near him/her. (9)

Therefore, the following necessary components of the system-functional model of the new teaching culture can be singled out:

- personality-oriented one (implies professional self-development in teaching);
- content-based one (includes the selection of the content of the interacting participants' activities implemented in the process of additional education of younger schoolchildren);
- organizational and methodical one (implies taking into account the essential characteristics of additional education of younger schoolchildren in the social local system);
- procedural one (it assumes that primary school teachers should master the essential mechanisms of the pedagogical activity, be ready for transforming sociocultural experience, searching their own pedagogical styles, and be aware of education as a transformative interaction).

The structure of the model of training higher basic education graduates (bachelors) in accordance with the Kazakh state obligatory standard of postgraduate education can be constructed on the basis of basic components (blocks), each of which can include specific cycles of hierarchically interrelated disciplines: social and humanitarian, natural science, and general professional ones; specialization disciplines and practical specifically oriented disciplines.

In view of the study of the qualities required for the new teaching culture considered in the scientific literature (9) and in view of the comparison with other presented models, the constituent elements of future teachers' readiness model can be as follows:

Table 1. Constituent elements of future teachers' professional readiness model

| Constituent elements | | | | | |
|---|---|---|--------------------------------|--|--|
| Epistemological ones | Search ones | Analytic ones | Communication ones | Activity-based ones | Adaptive ones |
| 1. Ability to apply inductive and deductive methods | 1. Information management and media management skills | 1. Ability to design educational programs | 1. Team management skills | 1. Ability to join the process started | 1. Ability to use new information and communication technologies |
| 2. Ability to apply synthetic method | 2. Competences in other areas | 2. Ability to select the content, forms and methods of work | 2. Ability to work in a team | 2. Ability to reach the goal | 2. Ability to be responsible for decisions made |
| 3. Ability to organize their own research | 3. Ability to analyze and classify various documents | 3. Ability to professionally analyze pedagogical situations | 3. Critical decision ability | 3. Ability to creative activity | 3. Ability to find new solutions in inadequate situations |
| 4. Self-development abilities | 4. Skills of developed sociological analysis | 4. Developed humane culture | 4. Ability to manage conflicts | 4. Ability to organize their own work | 4. Ability to assert a high culture of interpersonal relationships |
| 5. Knowledge in the field of | 5. Possibility of applying to expert | 5. Knowledge necessary for | 5. Compromise ability | 5. Ability to use modern technology | 5. Well-formed civil position |

| | | | | | |
|---|--|---|--|---|---|
| modern educational concepts, programs, and methodological approaches | consultants | organizing professional discourse in the form of debates and discussions on any topics of social development | | | |
| 6. Deep reflective culture of thinking | 6. Ability to process planning; diagnostic abilities; professional mobility and self-control | 6. Modern ecological culture including civilizational-ecological approaches of P. Teilhard de Chardin, V. Vernadsky, I. Prigodin, etc. | 6. Legal literacy for drawing up contracts | 6. To be a facilitator creating conditions for the development of students, for their self-improvement | 6. To have a motivation for self-actualization |
| 7. Ability to apply the system of learning technology, means and methods of student learning management | 7. Research skills manifested in the ability to know and objectively evaluate pedagogical situations and processes | 7. Ability to intercultural communications, to understand the differences between people, have the ability to live with representatives of other cultures, languages, religions, prevent the emergence of racism and xenophobia | 7. Skills to build subject-subject relations, establish equality and partnership | 7. Ability to create a learning environment for students learning activities to acquire new knowledge, to support solutions to the learning problem | 7. To know the real processes taking place in the modern school |

The implementation of the described qualities of a teacher, as noted by Kazakh researchers, depends on the level of formation of the three groups of competencies that a teacher of the new culture should possess:

- methodological (psychological and pedagogical) competences;
- general cultural (ideological) competences;
- subject-oriented competencies.

The most important task of training teachers in the system of continuous education is the formation of the foundations of professional competence necessary for the implementation of pedagogical activity. (10)

The competence-based approach in determining the quality of education will make it possible to present to potential customers and consumers of education clearly delineated educational needs for their implementation. Competence is a productive activity characteristic of education. The lower threshold of competence is the level of activity necessary and sufficient for minimal success in obtaining a result.

Competence is the organization of one's own and other resources for setting and achieving goals to transform the situation. Among an individual's own resources one can call his/her knowledge, skills and abilities, which are also the result of education, and in addition, psychological characteristics, values, etc., which are not.

3 Results and Discussion

The described constituent elements of future teachers' professional readiness model enable highlighting the criteria, indicators, and level of a teacher's readiness to develop younger schoolchildren.

The list of components, in one way or another, reproduces the list of activities for which the future teacher should be ready:

1. Mastering self-designing activities, designing one's own and attracting external resources for self-realization and reflection.
2. Mastering communicative activities, constructing their own and attracting external resources of self-help and mutual assistance in public life.
3. Designing their own and attracting external resources for minimal mastering of pedagogical and creative activities.
4. Designing their own and attracting external resources for minimal mastery of various professional activities.
5. Designing their own and attracting external resources for minimal mastering the basics of scientific research.

If we imagine readiness as a hierarchy of attained competencies, then we can see the resource potential of the education system in accordance with the three global goals of education (classical, real and social ones) and at all basic levels (elevated, basic, supporting and compensatory ones).

Table 2. Levels of readiness of future teachers to the development of younger schoolchildren

| Leading Educational Subsystems | Classic Educational Subsystem | Real Educational Subsystem | Social Educational Subsystem |
|--------------------------------|--|---|--|
| Advanced Education Subsystem | 1. Self-construction competence: minimal mastering of self-realization and self- | 1. Search and research competence: minimal mastery of the basics of research activities | 1. Social competence, or competence of solidarity: minimal mastery of communitarian activities through self-help and mutual aid in |

| | | | |
|--|--|---|--|
| | reflection activities | | public life |
| | 2. Individual reproductive competence: minimal mastering of parental, pedagogical, and creative activities | 2. Social reproductive competence: minimal mastery or other professional activities | 2. Self-construction competence: minimal mastering of self-designing, self-realization and reflection activities |
| | 3. Search and research competence: mastering the basics of research and development | 3. Independent competence: minimal mastering of self-designing, self-realization and reflection activities | 3. Search and research competence: minimal mastery of the basics of research activities |
| | 4. Social competence, or competence of solidarity: minimal mastering of communicative activities of self-help and mutual assistance in public life | 4. Social competence or competence of solidarity: minimal mastery of the communicative activity of self-help and mutual assistance in public life | 4. Individual re-productive competence: minimal mastering of pedagogical and creative activity |
| | 5. Social reproductive competence: minimal mastery of one or other professional activities | 5. Individual reproductive competence: minimal mastering of parental, pedagogical, and creative activities | 5. Social reproductive competence: minimal mastery of one or other professional activities |
| Basic Education Subsystem | 1. Individual Reproductive Competence | 1. Social Reproductive Competence | 1. Self-construction competence |
| | 2. Self-construction competence | 2. Social competence or solidarity competence | 2. Social competence and solidarity competence |
| | 3. Social reproductive competence | 3. Individual reproductive competence | 3. Social reproductive competence |
| | 4. Social competence or solidarity competence | 4. Self-construction competence | 4. Individual reproductive competence |
| Subsystem of supporting and compensatory education | 1. Social reproductive competence | 1. Social competence or solidarity competence | 1. Individual reproductive competence |
| | 2. Individual reproductive competence | 2. Social reproductive competence | 2. Social competence or solidarity competence |
| | 3. Social competence or solidarity competence | 3. Individual reproductive competence | 3. Social reproductive competence |

Competencies, therefore, in some combination that has already taken place, contain global goals of education - classical, real, and social ones, as well as types of educational content - elementary, pragmatic, and universal ones.

Competence, therefore, is a generalized performance indicator of variable education. (11)

Table 3. Indicators of readiness of future teachers to the development of younger schoolchildren

| Indicator | Content |
|---------------|--|
| Social | The ability to take responsibility, make decisions, implement them; tolerance, love of children. |
| Communicative | Knowledge of foreign languages, computer literacy, knowledge of ethnic pedagogy and psychology, the basics of world religions. |
| Informational | Ability to apply information technology, resources, the ability to independently comprehend the information received. |
| Special | High level of general culture, broad outlook, pedagogical tact, organizational skills, respect for the child's personality. Energism and stress resistance. |
| Cognitive | Focus on professional growth, continuous improvement of the educational level, the ability to acquire new knowledge and skills, the desire for self-development. |

In the process of development, the personality of the child changes itself. This process is, to a certain extent, controlled by the teacher, whose efforts should be aimed at improving the physical and psycho-physiological qualities of the child, personal qualities, knowledge, skills, values and attitudes; behavioral scenarios, fundamentals of lifestyle, attitudes towards oneself (self-acceptance), towards the world (world perception, worldview, pictures of the world), relationship with the world (ways of self-realization and self-affirmation). These tasks give rise to the following requirements for the preparation of future teachers for the development of primary schoolchildren:

1. Sociability, tolerance, social mobility, information technology culture, and flexibility of thinking.

2. Global, systemic, planetary, information technology, projective outlook and thinking.
3. Professional competence and mobility, the constant need for professional development and retraining, competitiveness.
4. Enterprise, ability to entrepreneurship, competitiveness, ability to professional self-preservation, individual style of professional activity.
5. Professional independence, responsibility, creativity, reflection, and adequate self-esteem. (11)

In the process of mastering pedagogical and psychological disciplines, the future teacher should be oriented towards the following requirements:

1. Reorientation from personality problems to child problems;

2. Attraction of child's whole environment to solving the problems of a child;
3. Taking into account all life realities and specific life situations of a child;
4. Diagnostics of potential and real possibilities of oneself, a child and participants of the environment.

The solution of these problems is possible in the discourse of the developed model of pedagogical support aimed at assisting children in solving their problems. (12-15)

The preparation of an integral model of the future teacher's personality implies the use of special programs and courses that solve the problem of creating professionalism in solving educational tasks in accordance with the needs of modern society and a creative, independent, responsible person. (16-20)

The analysis of the scientific literature, the difficulties of practicing educators, teachers, class tutors, as well as the study of the experience of pedagogical universities training future teachers, curricula in social and pedagogical disciplines, and interviewing students enable drawing up the following conclusions:

- there is an objective need to train students of pedagogical universities for the development of primary school children;
- there is a low level of readiness of both students and practicing teachers to implement social education in general;
- the analysis of the scientific literature suggests that the system of training future teachers will be most effective if new teaching technologies will be used as its technological support.

4 Conclusion

Innovative changes in higher professional education connected with modernization have predetermined the need for working out adequate socio-pedagogic conditions of shaping a student's personality that require the development and introduction of a new model of pedagogical practice based on a competency model of a tertiary school graduate. (21-25) This is in regard to the tendency of implementing projects for the creation of a balanced and high-tech innovative model of development of a contemporary social educator's professional competence. (26-31)

The study of theoretical aspects of the problem permitted us to carry out a comparative analysis and to interpret concepts as follows: competence - as a personal quality of a subject manifested in specialized activity in the system of the social and technological division of labor that can be viewed in an aggregate of competences as a structural component of competence; professional competence - as a totality of integrated characteristics of a person (specifically professional competence, social professional competence, individual/personal, professional competence, extreme professional competence) determine a professional's ability to realize in his or her activity a range of socio-professional and interdisciplinary knowledge, technologies of productive rendering of social aid and support to those in need of it for the purposes of improving the quality of social services; preparedness for shaping constructive social relationships of interaction, interperception and understanding another person; initiating a specialist's striving for personal advancement, professional self-realization and self-assertion in diverse spheres of activity.

The analysis of pedagogical approaches (functional and activity, axiological, universal, personality oriented) permits to conclude that professional competence of a social educator acts as his or her integrative professional and personal characteristic determining the quality of his or her activity expressed in the ability to act adequately, independently and responsibly in permanently changing social and professional spheres, reflecting his or her readiness for self-assessment, self-development and self-realization. The result of education is a specialist's preparedness for personal activities. The social educators' preparedness for professional activity leads to an integrative education of an individual characterized by a high level of his or

her mastering of psychological, pedagogical and special knowledge, expertise and skills, as well as professionally significant qualities needed for the efficient performance of the primary professional functions at a high creative level.

In a study performed (Psychological and pedagogical education, the scope of education: Psychology and social pedagogics, qualification: bachelor) a social educator's professional activities were viewed from the perspective of purposeful, conscious, personally meaningful activity aimed at a productive and creative solution of professional tasks. Pedagogical practice, being a link of the comprehensive educational process, permits integrating and generalizing perceptions and initial experience of a student's professional activity, and to form professional competencies. It should be noted that, in fact, practice integrates professional training of students in the sphere of theory, methodology and research work. Such an integration permitted us to create a comprehensive model of professional training through levels of the integration processes: the "external" integration ensuring interconnection with the future specialist's professional activity as per the Federal State Educational Standard of Higher Professional Education (5) and qualification profile in view of regional peculiarities and social partners' needs; the "structural" one, manifesting itself in the rapprochement of practice with other elements of professional training (character building, educational, independent, research work); the "internal" presuming interconnection and complementarity of some types and elements of practice as a system.

The results of the study confirm the validity of the developed conceptual theses of projecting the social educators' practice on the ground of the following approaches: (a) the competency-based approach (the goal of learning is not the process itself but the students' achieving a certain result - forming professional competencies); (b) the context-based approach (right from the start a student is put into an activity-oriented position because learning subjects are presented as educational and educational-professional activity objects); (c) the reflexive approach (the emphasis is not put on understanding reflexion as the student's understanding of thinking and communication patterns) (d) the modular and activity approach, which permits the students to perform a meaning-making transition from one type of activity (obtaining theoretical knowledge) to another (obtaining professional skills) and to establish a link between the expected result of education.

The development of the "Practice" modules was based on the principles whose implementation ensured the necessary efficiency in attaining goals, and determined the content and logic of pedagogical practice organization:

- 1) Continuity: one of the key principles of professional education development;
- 2) The principle of consistency: stage-by-stage mastering of the whole complex of professional expertise and skills, successive mastering all the professional functions of a specialist;
- 3) The principle of successiveness: stage-by-stage mastering of various types of activity (organizational and managerial, socio-technological, socio-projective, research activity);
- 4) The principle of integration: linking students' theoretical and practical skill in their independent social activity, the realization of integrative methods in training and implementation of practical activity;
- 5) The polyfunctionality principle: simultaneous performance of different professional functions in the process of practice (organizing, socio-rearing, socio-educational, rights advocacy, rehabilitation, research, etc.), mastering various professional roles within the framework of various kinds of practice (activity organizer, educator, protector, assistant, advisor);
- 6) The principle of social partnership: reflects relationships between all the practice subjects built on the priority of trust, partnership, and cooperation;

- 7) The principle of personality: presupposes affording giving students the opportunity of choosing an institution for practice on their own depending on their interests.

The contemporary educational paradigm, "education for sustainable development", requires training of efficient specialists who can make decisions quickly and attain success. The task of higher educational institutions is to prepare future specialists who are not only competent in theoretical professional activity, but are highly cultured, and civically and socially responsible, sharing humanistic ideals and moral values.

Literature:

1. Nazarbayev NA. *Strategiya 'Kazakhstan-2050' - novyy politicheskiy kurs sostoyavshegosya gosudarstva* [The strategy 'Kazakhstan-2050' - a new political course of an established state.]. Astana; 2012.
2. Nazarbayev NA. *Sotsialnaya modernizatsiya Kazakhstana: dvadtsat shagov k obshchestvu vseobshchego truda* [Social modernization of Kazakhstan: twenty steps to the society of universal labor]. Astana; 2016.
3. Government of Kazakhstan. Program no. 46 "Informational Kazakhstan 2020;" 2013.
4. Government of Kazakhstan. Program no. 827 "Digital Kazakhstan;" 2017.
5. Rakitov AI. *Printsipy nauchnogo myshleniya* [Principles of scientific thinking]. Moscow: Politizdat; 1975.
6. Human Development Report. 2016.
7. The Global Competitiveness Report. 2006-2016.
8. Kicheva IV. *Kratkiy slovar pedagogicheskikh terminov* [A brief vocabulary of pedagogical terms]. PGLU; 2009.
9. Bilyalova OM. Osnovnyye puti podgotovki uchitelya novoy formatsii [The main ways of training new culture teachers]. The nationwide scientific-methodical conference. Professional training of teachers: problems and prospects; Kokshetau; 2006; 69 p.
10. Shaymukhanova RK. Rol issledovatel'skoy deyatel'nosti v podgotovke uchitelya v sisteme nepreryvnogo obrazovaniya [The role of research activities in teacher training in the system of continuous education]. The nationwide scientific-methodical conference. Professional training of teachers: problems and prospects; Kokshetau; 2006; 71 p.
11. Yerdenova GB. Sovremennyye trebovaniya k professionalnoy podgotovke pedagogicheskikh kadrov [Modern requirements for professional training of teachers]. *Obrazovaniye*. 2008; 1(37):82-83.
12. Gorshkov MK, Klyucharev GA. *Nepreryvnoye obrazovaniye v kontekste modernizatsii* [Continuing education in the context of modernization]. Moscow: IS RAN, FGNU TSSI; 2011.
13. Kochemasova LA. Formirovaniye professionalnoy kompetentnosti sotsialnogo pedagoga v kontekste pedagogicheskoy praktiki [Formation of professional competence of a social teacher in the context of teaching practice]. *Vestnik OGU*. 2011; 16(135):463-466.
14. Paramonova AY. *Sotsialno-pedagogicheskiye usloviya povysheniya kachestva vuzovskogo pedagogicheskogo obrazovaniya (na primere podgotovki sotsialnykh pedagogov)* [Socio-pedagogical conditions for improving the quality of university pedagogical education (using the example of training social teachers)] [dissertation]. Ulyanovsk; 2007.
15. Bertram C. What does research say about teacher learning and teacher knowledge? Implications for professional development in South Africa. *Journal of Education*. 2011; 52:3-26.
16. Bertram T, Pascal C [Internet]. Early years education: An international perspective; 2002. Available from: <http://www.nfer.ac.uk/research-areas/pimsdata/summaries/cae-early-years-education.cfm>
17. Brown, F. Play Work. In Brook A, Dodds S, Jarvis P, Olusoga Y (eds.), *Perspectives on play. Learning for life*. London: Pearson Longman; 2009.
18. Crowe E. *Measuring What Matters: A Stronger Accountability Model for teacher Education*. Washington: Center for American progress; 2010.
19. Csibra G, Gergely G. Natural pedagogy. *Trends in Cognitive Sciences*. 2009; 13(4):148-152.
20. Cutter-Mackenzie A et al. *Young Children's Play and Environmental Education in Early Childhood Education*. Springer Briefs in Education; 2014. DOI: 10.1007/978-3-319-03740-0_2.
21. European Science Foundation [Internet]. The professionalisation of academics as teachers in higher education: Science position paper; France: Ireg Strasbourg. Available from: www.esf.org/social
22. Frijhoff W. Historian's discovery of childhood. *Paedagogica Historica*. 2012; 48(1):11-29. doi:10.1080/00309230.2011.644568.
23. Gamble J. *Teacher professionalism: A literature review*. Mimeo. Johannesburg: JET; 2010.
24. Groszman, Hammerness, McDonald [Internet]; 2009. Available from: https://www.google.ro/?gws_rd=ssl&q=Groszman%2C+Hammerness%2C+McDonald%2C+2009
25. Kelemen G, Presutti F, Norel M. Good practices regarding preschool and primary school teachers' initial training, management. *Intercultural*. 2013; XV(3).
26. Laevers F. Experiential education: making care and education more effective through wellbeing and involvement. In *Encyclopaedia on Early Childhood Development*. Montreal: CEECD/SKCECD; 2011.
27. Lieberman A, Pointer Mace D. Teacher learning: the key to education reform. *Journal of Teacher Education*. 2008; 59(3):226-234.
28. Mustard JF. Early Child Development and the Brain – the Base for Health, Learning and Behavior through Life. In Young ME (ed.), *Investing in Our Children's Future: From Early Child Development to Human Development*. Washington DC: World Bank; 2002.
29. Potolea D, Ciolan L. Teacher Education Reform in Romania: A Stage a transition. In Moon B, Vlăsceanu L, Barrows LC (eds.), *Institutional Approaches to Teacher Education in Europe*. FPE/UNESCO; 2003.
30. Russel și Loughran. *Improving Teacher Education Practice through Self-study*. Taylor & Francis; 2007.
31. Welch T. Teacher development: What works and how can we learn from this and maximise the benefits? Presentation at Teachers' Upfront meeting. Wits School of Education; 2012.

Primary Paper Section: A

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THE USE OF METACOMMUNICATIVE STRATEGIES IN ORDER TO FORM A FOREIGN LANGUAGE COMMUNICATIVE-SECTORAL COMPETENCE OF STUDENTS OF NON-LINGUISTIC UNIVERSITIES

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Abstract: The peculiarity of modern professional foreign-language education in the world is the transition to education throughout the entire professional activity of a person. But in order to carry out lifelong learning, it is necessary to lay the foundation for foreign-language education in the student audience. The goal of our research is to introduce students of the specialty "Governmental and Local Management" to professional activity through the sectoral metalanguage of the foreign-language being studied. In this case, we form the students of the specialty "Governmental and Local Management" foreign language communicative-sectoral competence, by which we mean the student's ability to operate with the metalanguage and communicative strategies of a foreign language for professional purposes. Let us clarify what metalanguage skills are; it is the possession of the language's term system and its conscious use in the implementation of professional activity in intercultural communication.

Keywords: communicative-sectoral competence, foreign language, education, metalanguage.

1 Introduction

Existing works on the problem of the formation of professional foreign language competencies testify to the relevance of using various metacommunicative strategies in the implementation of the tasks of language training for future specialists. To this end, we have identified a model for the formation of foreign language communicative-sectoral competence among non-linguistic students.

It requires building links with the subjects of the professional cycle in accordance with the directions of the future profession's activities, identifying fundamentally new educational resources that require harmonization of the metalanguage chosen from the subjects of the vocational sector for teaching the course "Professionally Oriented Foreign Language". All this necessitates the proper organization of intercultural-sectoral communication tasks that face the teachers of higher educational institutions. At the same time, real practice faces some contradictions:

- between the need to carry out communicative-sectoral foreign language activities in the innovation mode and the well-established traditional approach to professional foreign language education;
- between the need for systemic implementation of intercultural-sectoral communication strategies in the technology of foreign language education and weak methodological support of this issue. (1)

The most important factor for the development of the problem we studied was the dissemination of the scientific interest of researchers, aimed not only at identifying intercultural-sectoral communication technologies but also their most detailed, phased implementation in the educational foreign language process. Theoretical analysis of scientific literature in the field of pedagogy and methodology showed the presence of a significant amount of work on professional foreign language education, however, the problem of solving didactic tasks for introducing into the educational process intercultural-sectoral communication technologies, in our opinion, is insufficiently considered and, therefore, relevant

2 Literature Review

The transition to a new educational paradigm requires the qualitative development of the communicative abilities of the individual, allowing them to function successfully in the new world space. Existing work on the problem of foreign language communicative competence emphasizes its structure, which includes a system of communication skills and abilities, orientation in the media and aspects of human communication, reflected in the knowledge of cultural norms and restrictions, customs and traditions. (2-3)

The works of scientists (N.I. Gez, G.V. Kolshansky, Yu.I. Kuzmitskaya, R.P. Milrud, and others) provide a set of competencies that make up the structure of teaching foreign languages, as well as communicative competence in a foreign language, but do not form a conceptual and cultural component, which is emphasized by S.S. Kunanbayeva in her cognitive-linguistic-cultural methodology, where the "linguistic picture of the world" is an important element of the result of learning a foreign language. To improve the quality of foreign language education, leading scientists led by Professor S.S. Kunanbaeva developed and introduced an adapted national-level model of language learning in the framework of the national project "The Trinity Unity of Languages of the Republic of Kazakhstan".

Analysis of scientific literature allows us to state the fact that at the end of the 20th century - the beginning of the 21st century in the field of vocational education, the problem of forming foreign language competence among students of non-linguistic specialties began to be realized. The works of many scientists are devoted to the problem of the formation and development of foreign language communicative competence (M.N. Vyatytnev, I.A. Zimnyaya, N.I. Gez, E.I. Passov, I.L. Bim, J. Savignon, D. Hymes, and others). In the existing works on the problem of the formation of foreign language communicative competence stands out its structure.

The reform of higher education in Kazakhstan is associated with a change in the content of foreign language education (S.S. Kunanbayeva) and the creation of pedagogical conditions conducive to the development of the student's personality and mastering effective intercultural communication strategies. (4-5) At this stage, the consideration of the problem of professional foreign language training is reflected in the research works of S.S. Kunanbayeva "Modern Foreign Language Education: Methodology and Theories", T.A. Kulgildinova "Formation of Discursive Competence among Students-Journalists", A.T. Chaklikova "Scientific and theoretical foundations of the formation of the ICC in the conditions of informatization of foreign language education", D.N. Kulibayeva "Methods of Formation of International Standard Levels of Proficiency in a Foreign Language in the Conditions of Schools of International Type", A.B. Tynyshtykbayeva "Methods of Forming the Skills of Professional Communication in a Foreign Language Among Students of a Technical College", and many others.

To form professional foreign language competence among students of non-linguistic universities, it is necessary to use communication strategies. As V. Klyuev notes, strategies are a set of theoretical and practical moves planned by the speaker in advance and implemented in the course of communicative intent, aimed at achieving a communicative goal. It must be remembered that the method of combining these theoretical and practical moves into a single whole (communicative strategy) is called a communicative intention, without which it is impossible to implement a communicative strategy.

Considering the definitions of the above scientists, we understand foreign language communicative competence as the ability and readiness of a future specialist to act as a subject of intercultural communication in various professional situations of

communication with representatives of other cultures, i.e. participate in intercultural communication. (6-7) The analysis of these works indicates a growing interest in the problem of professional foreign language training and the recognition of the need to form communicative-sectoral foreign language complexes for the study of metalanguage in foreign language communication.

Consequently, the problem of developing communicative-sectoral foreign language technologies for the formation of communicative-sectoral foreign language competence of students of the specialty "Governmental and Local Management" is due to the social order of society, the peculiarities of intercultural communication in a multinational state, the priority directions of modern educational policy and the expansion of state attention to the issue of forming a foreign language communicative competence in students of non-linguistic specialties. (8-9).

3 Materials and Methods

To achieve the goals of developing intercultural-sectoral communication technologies, the following methods such as a theoretical analysis of the research problem, based on the study of pedagogical and methodological literature; analysis of educational standards, qualification characteristics for studying the nature and content of the work of future specialists; the dialectical method of considering the problem as a whole; systematic analysis of industry activities are used.

In our study, the development of intercultural-sectoral communication technologies is based on the following basic principles:

- the principle of the problem organization of the educational process;
- principle of the linguocultural and sectoral orientation of education;
- principle of interdisciplinary communication;
- the principle of value-reflexive interaction in the organization of foreign language communication.

The choice of these principles is primarily due to the fact that the lack of depth of interdisciplinary integration often leads, on the one hand, to duplication of individual issues in different sciences in conditions of shortage of study time, on the other hand, to a lack of students mastering a number of topics in next one. The essence of the changes is the growing role of the knowledge of the future specialist in the field of related sciences and the ability to apply them comprehensively in solving professional problems. The integration of scientific knowledge is carried out on the basis of cyclic, interdisciplinary and intradisciplinary communication and is a logically complete structure of multidisciplinary knowledge. (10) Such integration does not simply supplement the content of one discipline with knowledge from another, but unites them and provides not narrowly disciplinary training, but activity-based, shaping professionally important skills and qualities of the individual. (11)

The leading idea of the study is as follows: the successful professional activity of a future specialist depends on the quality of teaching a foreign language, which emphasizes the need to develop intercultural-sectoral communication strategies that contribute to the formation of foreign language communicative-sectoral competence. The formation of this competence includes the following components in the model such as the study of a foreign language according to the branch principle of specialization, the structural-component composition of the target language and the principles of the formation of a new language system, as well as the mastery of social norms of behavior, goals and capabilities of implementation in future professional activities, which also include strategies. (12-13)

The task of improving the quality of training of specialists in the field of foreign languages for future specialists is implemented in the process of foreign language education in higher education through the introduction of innovative educational technologies

focused on the professional-sectoral field, and providing clear criteria for assessing language skills.

Foreign language communicative-sectoral competence in the modern understanding of this word implies the ability to intercultural interaction using the sectoral metalanguage of the specialty. Consequently, the main component of intercultural-sectoral communication strategies are professional and sectoral problem-oriented educational language tasks that allow students to succeed in the process of mastering a foreign language in professional sectoral communication. (14) The material studied in the course of the discussion of problem-oriented educational language tasks can be transmitted in a real medium of communication with representatives of other countries and cultures, can be used in the process of reading foreign language literature of the sectoral focus and other sources of information.

In the process of developing intercultural-sectoral communication technologies, it is also necessary to consider the strategies for the formation of foreign language communicative-sectoral competence. In our study, we highlight the following strategies such as communication (CS) and intercultural-sectoral communication strategies (related to the metalanguage of the industry specialization) (ISCS). (15-16)

Let us once again return to the definition of the concept of strategy, by which we understand the general principles of speech behavior in connection with the formulation of a specific practical problem and the plan for its implementation. Strategies for the formation of foreign language communicative-sectoral competence among students of non-linguistic universities imply a sequence of intentions of speech acts in a typical situation of socialization. Their essence is manifested in the explanation, explanation of the new material, assessment of the results of work, control, interaction and organization of the activities of the main participants of this event. In accordance with the mentioned stages of the activity of the teacher and the student, the following communication strategies are distinguished such as explaining, evaluating, facilitating, organizing and controlling. Communicative interaction strategy teacher - student is determined by the teacher who controls the process of cognitive activity. It regulates the relationship between students, creates an atmosphere of friendly and active verbal communication. (16) The explanatory communicative strategy is aimed at the realization of a sequence of intentions oriented towards informing and transmitting knowledge and their interpretation with the aim of successfully mastering them by the students. The essence of the strategy is to clarify the intellectual aspect of information, which is intended to provide its explanatory speech with verbal and non-verbal means. This strategy goes back to the verb "teach", which means "to transfer knowledge" and, accordingly, the verb "explain" contains actions such as to name, characterize, define, relate, specify, generalize, interpret, reformulate. The explanation strategy is characterized by thought-speech verbs, they reflect joint actions in the process of information transfer "let's figure it out", "indicate", "remember", "note", etc. (17)

The assessment strategy is implemented in the need to evaluate learning activities and success. It is expressed by the following means:

- 1) Idiomatic: "twiddle one's thumbs will not work".
- 2) Metatext elements containing direct assessments of the communicative situation, the subject of speech and the course of discourse.

The control strategy is expressed in such external control-evaluating speech acts as:

1. Ascertaining, when the teacher gives the installation for the students to perform the task: "Do you need to produce ...? Who did not get the task? What was difficult?"
2. Testers - the teacher checks the level of mastery of students' academic knowledge: "... We have studied the terms of the document flow... What are the conditions for writing a complaint letter? Be careful when doing the exercises."

3. Diagnostic monitoring and evaluating - the teacher sets the level of formation of learning skills of students.

The assistance strategy is aimed at creating optimal conditions for the formation of the subject of intercultural communication, by which is meant the person owning the metalanguage of the specialty in a foreign language (S.S. Kunanbayeva). The strategy is expressed in the form of a positive attitude towards the addressee as a central category in all educational and pedagogical interaction (approval, praise for maintaining determination and strengthening positive efforts): “Молодец!” [“Molodets!”], “Хорошо потрудился!” [“Khorosho potrudilsya!”], “Good job!”, “Well done!”, “Go ahead!”, “You can do it!”.

Communicative strategies (CS) are aimed at solving the main goal of communication such as overcoming communication difficulties. These include:

1. CS-development aimed at reaching an agreement when expressing two different points of view in subject-subject communication.
2. CS-interpretation aimed at clarifying the meaning of the statement in the context of communication.
3. CS-rewriting aimed at finding a new, more expressive, accurate form for the expression of the same (original) meaning.
4. CS-denial aimed at denying the meaning of the original statement and bringing the argument regarding the denial of the original statement.
5. CS-appliance aimed at the application of the original statement in a new private communication situation.
6. CS-evaluation aimed at evaluating someone else's opinion, with a positive or negative comment.
7. CS-redefinition aimed at the new definition of a known concept/representation in the context of differential features.
8. CS-commenting aimed at commenting on the subject meaning based on the logical-semantic component of the discussed concepts/views.

Intercultural-sectoral communication strategies, as opposed to communication strategies, are considered by us as a language reflection, i.e. conscious attitude to his and someone else's speech in terms of normative, communicative and ethical aspects of the culture of speech. (19) The use of intercultural-sectoral communication strategies in the educational process will lead to the development of proficiency in a sectoral foreign language, management of one's speech behavior, which is important in future professional-sectoral activities. Intercultural-sectoral communication strategies (ISCS) include:

1. ISCS-interpretation, in which an unfamiliar foreign language statement related to the sectoral interpretation of a foreign language is not translated into the native language, but explained by means of synonyms or familiar expressions in the context of communication.
2. ISCS-appliance, in which the meaning of an unfamiliar foreign language statement associated with the metalanguage of the industry, is formed through the search for a new, more expressive, accurate and even extraordinary form to express the same (original) meaning.
3. ISCS-применение, in which a foreign language statement is applied in a new sense related to the sectoral interpretation of a foreign language in a private situation of communication.
4. ISCS-commenting, where the subject of discussion is any particular (in relation to the specialty metalanguage), secondary (relative to the main meaning) component of the original foreign language utterance, subject to comment.

These communicative and intercultural-sectoral communicative strategies are reflected in professional-sectoral problem-oriented educational language tasks, the solution of which is the assimilation of educational material, its consolidation, repetition, expansion, the unification of knowledge and ideas about future professional activities, as well as the development of skills and abilities foreign language communication industry

specialization. All tasks are based on gaming, imitation and free communication.

The tasks of the following types are highlighted:

- communicative-sectoral games in a foreign language;
- communicative imitations of foreign language business communication in the field of industry specialization;
- free foreign language communication in the field of industry specialization.

Let us give an example of a communicative-sectoral game in a foreign language “Chinese whisperm”

Purpose: To show participants the importance of active listening, the importance of using clarifying questions.

Time: 20–25 minutes.

Number of participants: 10–16 participants.

Description. The teacher explains the rules: 5–7 people go out of doors, the teacher reads the text to one (of those who stayed), the rest are observers and evaluate the transfer of information by the participants.

The task of the listener is to pass on what he remembers to the next participant. Participants come in turns, listen and transmit the received information to the next participant.

Text example:

The secretary of the maslikhat of Almaty asked to inform all the deputies that the meeting of the maslikhat devoted to the revision of the budget of the city of Almaty was postponed from Tuesday, September 19 at 5:00 pm to Thursday, September 22 at 4:00 pm. The venue of the meeting changed from the assembly hall of Akimat of Auezovsky district of Almaty to the Meeting room of Akimat of Bostandyk district of Almaty.

Discussion of the results:

- How much information from the original text did you hear?
- Observers, did you notice how the information was distorted? Why did this happen?
- What are the ways to improve the quality of information transfer?

When using an imitation method of active learning, a task (problem) is identified, roles are assigned to simulate real-life conditions so that each participant can agree or disagree with the opinions of others and express their opinions when developing options and analyzing the problem. Now we give an example of the communicative imitation of foreign language business communication in the field of industry specialization: “Pinwheel of complainers”.

Purpose: the development of business communication skills and foreign language communication when working with the public.

Time: 25–30 minutes.

A number of participants: any.

Two circles are made up of chairs such as external and internal. One chair in the outer circle should be opposite one chair in the inner circle. The total number of chairs must match the number of participants. One group is given the role of “experts”, they occupy places in the inner circle. The second group receives the role of “complainers”, they occupy places in the outer circle.

The task of the teacher is to regulate the stages of the action, and therefore reports the conditions of the game. One of the conditions is that the participant acts as a “plaintiff”; he must appeal to several “experts” with a statement in which he sets out the essence of the claim. To do this, during each minute all the “complainers” amicably rise and change to the next place (clockwise). The “plaintiff” must very quickly and accurately state the essence of his complaint. It is desirable that the

complaint had a real basis, but you can use a fictional situation. Subject claims are announced in advance so that students can prepare cliches for a specific situation. The teacher distributes the group in the following areas such as complaints of a social nature as well as a scientific one (denunciation of plagiarism). The basis of a complaint may be a ready-made application, the form of which must be correctly filled out, which requires the student to be skilled in the preparation of documents of this kind. The same plaintiff should address each expert with the same problem, but each of the “experts” should find his own solution and quickly issue his recommendation on how to resolve the issue, in a statement. At this stage, language training is checked for professional purposes of several participants in the game. Such a plan is aimed at implementing an intercultural-sectoral communicative commenting strategy, where the opinion of one of the experts is chosen as the subject of discussion and arguments are given to refute this version and

At the next stage, the “plaintiff” retells the answers of other “experts” that he managed to hear. The task of an “expert” at this stage is to agree or refute the recommendations of other experts. One minute is also allotted to this, and the steps repeated with each participant are also held. Such cliches are used:

Let me introduce... – Разрешите представиться... [Razreshite predstavit'sya...]

Allow me to introduce (to present). – Разрешите представить... [Razreshite predstavit'...]

In short... – Короче говоря... [Koroche govorya...]

I see. – Понял [Ponyal].

Say it again, please. – Повторите, пожалуйста [Povtorite, pozhaluysta].

Is that the point? – В этом смысл? [V etom smysl?]

That is not exactly what I mean. – Это не совсем то, что я имею в виду [Eto ne sovsem to, chto ya imeyu v vidu].

Let us clear it up. – Давай выясним [Davay vuyasnim].

In other words. – Иными словами [Inymi slovami].

I mean it. – Именно это я имею в виду [Imenno eto ya imeyu v vidu].

I am coming to that. – Я подхожу к этому [Ya podkhozhu k etomu].

It stands to reason. – Логично [Logichno].

I have changed my mind. – Я изменил свое мнение [Ya izmenil svoye mneniye].

I am in two minds. – Никак не могу решить [Nikak ne mogu reshit'].

I can't make up my mind. – Я не могу настроиться/решиться [Ya ne mogu nastroit'sya/reshit'sya].

Do it right away. – Сделай это прямо сейчас [Sdelay eto pryamo seychas].

Don't put it off till the last moment. – Не откладывай это до последнего момента [Ne otkladyvay eto do poslednego momenta].

It implements an intercultural-sectoral communication strategy - rewriting, which requires the transfer of the meaning of an unfamiliar foreign language utterance associated with the metalanguage of the industry. A participant in a business game needs to rephrase what he heard through a search for a new, more expressive, accurate, and even extraordinary form to express the same (original) meaning.

After the second round, “complainers” and “experts” switch roles.

At the end there is a discussion:

- What individual differences in the manner of speaking, listening, in non-verbal behavior did the participants notice from each other?
- How much can you say and hear in one minute?

These tasks contribute to the development of foreign language communication skills of a sectoral focus, and in them, we can observe the implementation of all the above-mentioned communicative and intercultural-sectoral communicative strategies. In the process of active interaction in the framework of intercultural-sectoral communication strategies, each participant learns to relate his interests to the interests of partners in the formulation and solution of professional-sectoral educational language tasks. Each individual responds differently to the same information, which gives rise to dialogue, coordination of positions and interests. Thus, these tasks enable the student to master the communication situation, to realize the skills of designing communicative-sectoral situations and the manifestation of creative initiative. Situations of future professional activities aimed at the development of communicative-sectoral competence are realized in the form of imitation of business communication and professional-communicative games.

4 Results and Discussion

It is widely practiced to use the design method to organize the process of learning a foreign language. The design process includes the development of an integrated system, which consists of interconnected components, stages, states of the pedagogical process and the actions of its participants. Designing the process of teaching a professional foreign language is based on the integration of several existing approaches to the teaching of foreign languages such as competency-based, cognitive-lingual-cultural, and context-specific approaches. (20)

The use of a contextual-sectoral approach, integrated into the system of higher education, is a single complex of constructive, organizational and communicative components aimed at the development of foreign language communicative-sectoral competence. (21) The use of contextual-sectoral approach aimed at the formation of foreign language communicative and sectoral competence in the system of professional foreign language training more effectively when implementing the following didactic conditions such as the structure and content of the generated foreign language communicative industry skills are determined by the target orientation, content and character of the professional-sectoral activity of the future graduate of the specialty “Governmental and Local Management”; the logic of the process of designing intercultural-sectoral communicative complexes, its stages, methods, procedures are due to the peculiarities of the structure and content of foreign language communicative-sectoral abilities of the graduate in the specialty “Governmental and Local Management”; the process of forming a foreign language communicative and sectoral competence is built on a subject-subject relationship using active forms of organization, methods, and means of training.

The implementation of intercultural-sectoral communication complexes can be implemented using a number of tasks, such as:

- the formation and development of foreign language communicative and sectoral competence,
- establishing the level of motivation for mastering a foreign metalanguage of the industry specialization,
- personality development of future industry sectors in the field of intercultural communication,
- achievement of the level when the student is considered as a “subject of intercultural communication”.

Our experiment involves students of economic specialty who will work in state structures of local and international management. In the control and experimental groups, students of the specialty "Governmental and Local Management" were trained. Our experiment was conducted in the framework of the discipline "Professionally-oriented Foreign Language" (2 credits), in which 46 people participated 2 courses from the experimental group and 20 students of the control group. For checking and confirming the results, we attracted the same 46 students who continued their studies in the discipline "Specialized Foreign Language", for which 4 credits for the 3rd year and 2 credits for the 4th year are allocated from the university component. 92 students of the 3rd course from the experimental group and 40 students of the control group participated at the exit. Such a number of hours makes it possible to fully ensure that a student has a foreign language communicative and industry competence in various professionally defined situations.

Intercultural-sectoral communication complexes reveal the essence, internal structure, and logic of a complex educational process, the unity of all its elements, which are interconnected and interdependent. The implementation of intercultural and sectoral communication complexes ensures successful training of future specialists in the field of business and foreign language professional-sectoral communication. Designing intercultural-sectoral communication complexes is an open development system that allows you to flexibly change its structure and parameters when you accumulate new information and change the requirements for highly qualified professional industry sectors. The design of intercultural-sectoral communication complexes is organized in stages, and the content was chosen considering the future professional-sectoral activities of students.

5 Conclusion

Working with the intercultural-sectoral communicative complex implies two ways of forming a foreign language intercultural-sectoral communicative competence of students, "the way of deepening into a profession through differentiating the metalanguage", that is, a deeper understanding of a foreign language, which includes blocks according to certain concepts, thereby expanding the range of possibilities metalinguistic and communicative professional understanding of the language for the specialty "Governmental and Local Management" of the basic setting for the adoption of alternative allows you to see at a variety of approaches to the problem. The second way to use intercultural-sectoral communication strategies, which are demonstrated in this article. We obtained results that reflect the conceptual characteristics of our intercultural-sectoral communication complex and regulate the entire educational process, being guidelines for its construction.

1. In order to ensure the dialogical and activity character of mastering by future managers of a foreign language, it is designated as an important principle of the dialogical nature of professional communication, which is confirmed by the goal of mastering a foreign language and the ways of achieving this goal.
2. For the purpose of linguistic and professional enrichment of the worldview of future managers in their communicative preparation for intercultural communication, the principle of foreign language didactic professional orientation is used in the number of dominant, which fully reflects the whole process of mastering a foreign language.
3. For the most complete output both in educational and in foreign language speech activity, we use the principle of communicative-sectoral orientation, which determines the external and internal activity of students and the professional-sectoral nature of their speech and thought activity.

The process of teaching foreign languages in the field of professional-sectoral communication is quite long and has its own dynamics. The need to revise the process of teaching foreign languages from the standpoint of a content-sectoral

approach is discussed in many research papers and is considered in accordance with modern requirements for specialists in a particular area of foreign-language professional and sectoral activities. Thus, the design of the language teaching process, structured in accordance with the stages of the formation of foreign language communicative and sectoral competence, contributes to an increase in the level of language acquisition by students in the field of professional-sectoral activities.

Literature:

1. Gez NI. Forming the communicative competence as the object of foreign methodical research. *Foreign Languages at School*. 1985;2:17-24.
2. Kolshansky GV. *Linguo-communicative Aspects of Verbal Communication*. *Foreign Languages at School*. 1985;1:10-14.
3. Milrud RP. Competency in language learning. *Foreign Languages at School*. 2004;7:30-36.
4. Kunanbayeva SS. *Theory and practice of modern foreign language education*. Almaty; 2010.
5. Kunanbayeva SS. Educational Internationalisation as a Major Strategy of the Kazakhstani System of Education. *International Journal of Applied Engineering Research*. 2016;11(11):272-277.
6. Psychological and linguo-didactical aspects of vocational-oriented foreign language reading in higher institution. Sverdlovsk; 1988.
7. Shamov AN. *Cognitive paradigm in teaching lexical aspect of foreign language: monography*. Nizhny Novgorod; 2009.
8. Leontiev DA. *Modern psychology of motivation*. Moscow: Smysl; 2002.
9. Kulgildinova TA, Zhumabekova GB, Golovchun AA, Eginisova A. Theory and practice professional competence formation of learners. In: "East West" Association for Advances Studies and Higher Education. Vienna; 2016.
10. Kulgildinova T, Zhumabekova G. Formation of the subject of intercultural communication in foreign-language education. *Vestnik KazNU imeni Al-Farabi*. 2017;4:14-18.
11. Kulgildinova T, Zhumabekova A, Shabdenova K, Kuleimenova L, Yelubayeva P. Bilingualism: language policy in modern Kazakhstan. *XLinguae*. 2018;11(1):332-341.
12. Kramsch C. Culture in foreign language teaching. *Iranian Journal of Language Teaching Research*. 2013;1(1):57-78.
13. Levine G, Phipps A. (Eds.). *Critical and intercultural theory and language pedagogy. Issues in Language Program Direction*. Boston: Heinle; 2010.
14. Liddicoat, A. & Scarino, A. (in press). *Language teaching and learning from an intercultural perspective*. Oxford: Wiley-Blackwell.
15. Young R. *Discursive practices in language learning and teaching*. Oxford: Blackwell; 2009.
16. Hu A, Byram M. (Eds.). *Intercultural competence and foreign language learning. Models, empiricism, assessment*. Tübingen: Gunter Narr; 2008.
17. Corbett J. *An intercultural approach to English language teaching*. Clevedon, UK: Multilingual matters; 2003.
18. Tomlison B. *Materials development in language teaching*. New York: Cambridge University Press; 2011.
19. Johnson K. *An introduction to foreign language learning and teaching*. London: Routledge; 2013.
20. Baltzersen RK. The importance of metacommunication in supervision processes in higher education. *International Journal of Higher Education*. 2013;2(2):128-140.
21. Rozati SM. Language teaching and task based approach. *Theory and Practice in Language Studies*. 2014;4(6):1273-1278.

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MODERNIZATION OF THE SYSTEM OF SELECTION AND TRAINING OF CANDIDATES FOR JUDGES IN THE REPUBLIC OF KAZAKHSTAN IN THE LIGHT OF ADVANCED INTERNATIONAL EXPERIENCE

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Abstract: The purpose of the article is to study global standards, recommendations developed by the international community, the experience of advanced foreign countries in the selection and training of candidates for judges, and to justify recommendations for its use in the Republic of Kazakhstan. The article examines various models of national systems for the preparation of judicial candidates. The authors concluded that there is no single standard in the training of judges, each country has its own approach, depending on the characteristics of the legal system, historical traditions. Nevertheless, the standards developed by the international community are the benchmark of proven approaches to improving the quality of judicial personnel. The current model of training judges in the Republic of Kazakhstan does not fully meet the requirements of the time and the ambitious strategic goals set by the country. Unlike the standards enshrined in the international act and the laws of foreign countries in which there is a comprehensive system of preliminary training of candidates for judges, in Kazakhstan, in fact, there is no systematic training of candidates for judges. The institution of the candidate for the judge is not formalized. Existing forms of education do not allow fully and systematically to fully prepare candidates for judges for their professional activities. This is largely due to the poor quality of administration of justice, judicial errors, low level of public and business confidence in the judicial system. The directions for improving the Kazakhstani system of selection and training of candidates for judges were justified, taking into account international best practices: introducing the institution of candidates for the office of judge, establishing a constitutional requirement for mandatory preliminary training for all candidates for judges in a specialized educational institution - the Academy of Justice at the Supreme Court of the Republic of Kazakhstan, with the payment of proper salaries to the trainees. Such training should be carried out at the very last stage of the selection of candidates for judges. It is necessary to improve the principle of "judges teach judges" by involving experienced judges in their teaching, with their separation from their main work.

Keywords: judicial education, court, justice, Academy of Justice at the Supreme Court of the Republic of Kazakhstan, candidate for the position of judge, judicial community, professional development of court, retraining of judges, mentoring, mentorship.

1 Introduction

In the Republic of Kazakhstan, the process of deep transformation of the state legal system, aimed at the implementation of the principles of the rule of law state, continues to the present day with independence. For the first decades of independence, legislation has been completely updated. However, the adoption of any, even the most perfect law is not yet a guarantee of respect for the rights and legitimate interests of citizens. A no less sophisticated mechanism is needed to implement the law, the paramount importance of which belongs to the judiciary, which is entrusted with the mission of protecting human rights and freedoms by resolving legal conflicts. The fact that the court has the exclusive right to make court decisions on behalf of the state testifies to the high role of the court in a legal state. In this regard, the key documents for creating a favorable business environment, improving the investment climate, industrial and innovative development, and achieving other strategic goals of the Republic of Kazakhstan consider the independence, impartiality, and professionalism of judges in the strategic documents of the Republic of Kazakhstan.

The implementation of this high mission of justice, the level of public confidence in the court, the authority of the judiciary depends on the authority of each judge, and therefore is inextricably linked with the personality of the judge, requires him to meet the most stringent requirements, both in the professional and personal moral plan.

In this regard, issues related to the criteria for the selection and training of judges occupy an important place in the policies of any state. On the basis of what principles, the system of selection of judicial personnel is organized, what requirements are placed on candidates for judges, who checks candidates for compliance with established criteria, etc., what order of selection, exams, etc. depends on if judge's independence is fully provided or not.

Today in the Republic of Kazakhstan there is a search and development of its own model of the system of selection and training of personnel of the judicial system, which would satisfy the needs of society, consider both national peculiarities and advanced foreign experience.

These factors put on the agenda the need for a thorough study of advanced international experience in the training of judicial system staff in order to develop sound recommendations for creating a Kazakhstani model of selection and training of judges. As a well-known French jurist Mark Ansel rightly noted, the study of foreign law "opens up new horizons for a lawyer, allows him to learn more about the right of his country, because the specific features of this right are especially clearly revealed in comparison with other systems. cannot be obtained even with a very good knowledge of only my own right." (1)

Foreign experience of training was considered by individual authors in the study of the problems of the legal status of a judge. So, T.N. Neshataeva, E.A Kudelich, N.V. Pavlova, V.V. Starzhenetsky, V.L. Tolstykh study issues of the system of vocational training and advanced training of judges in foreign countries. (2) The work by V.V. Peysikov is devoted to the issues of legal and organizational aspects of the selection, training and advanced training of judges in various countries and in the Russian Federation. (3)

Topical issues of judicial reforms in foreign countries were considered by Professor John Owen Haley. (4) Judicial professors Robert G. Bone, (5) Toby S. Goldbach, (6) and Pakistani scholar Munir Ahmad Mughal (7) are dedicated to reforming judicial education.

At the same time, this problem has not yet been considered in the science of Kazakhstan and foreign countries from the perspective of studying international experience in selecting and training candidates for judges from the perspective of the possibility of its implementation in the Republic of Kazakhstan, which determines the novelty of the present study.

2 Materials and Methods

2.1 Global Standards for the Selection of Candidates and the Training of Judges

The world community has developed universal standards for the basic requirements for the selection and training of judges. So, Art. 10 Basic principles of the independence of the courts and the judiciary from 1985 states that "persons selected for judicial positions must have high moral qualities and abilities, as well as appropriate training and qualifications in the field of law..." (8)

In the Universal Charter of Judges 1999. It is indicated that the selection of candidates for the position of judge is carried out according to objective criteria, which are based on the corresponding professional qualification. The selection is carried out by an independent body, which includes the functions of real judicial representation. (9)

The most detailed procedural rules governing the selection and training of candidates for the position of the judge are set forth in Recommendation No. R (94) 12 of the Committee of Ministers to member states regarding independence, effectiveness and the

role of judges of 1994. The mandatory selection criterion according to Rule III - Proper working conditions - is the practical training of candidates in the courts prior to their appointment to the post of the judge under the guidance of experienced and reputable managers. The recommendations state that the criteria for the selection of judges must be objective and consist in having the appropriate qualifications and untainted reputation; the free character of the training with study visits to European and other foreign courts is indicated.

In the Opinion No. 4 of the Consultative Council of European Judges (hereinafter referred to as the CCJE) it states that the state is obliged to ensure that a judicial or other independent body is responsible for organizing and supervising the training of judges (paragraph 11); the independence of the body responsible for curriculum development should be maintained (paragraph 15). In paragraph 16, the CCJE is opposed to entrusting these responsibilities to the Ministry of Justice or any other body accountable to the legislature or the executive. (10)

The European Charter on the Status of Judges of July 8-10, 1998: one of the grounds for deciding on the appointment of a judge is considering "conditions that thanks to the fulfillment of the requirements for the necessary education and professional experience, provide competence for the implementation of specific judicial functions" (par. 2.2.); the requirement of the mandatory training of candidates for judges "by means of special training organized at the expense of the state" (par. 2.3.). Note that in Kazakhstan such a requirement is not specified. In this regard, the following should be noted. The many-year practice of appointing judges in the Republic of Kazakhstan on the basis of established criteria has shown their inefficiency, does not quite meet the needs of society in a capable judicial system.

Despite the fact that the provisions of these acts are advisory in nature, they nevertheless became a guideline for many states and were perceived by the civilized international community as a guide to action when improving national legislation.

2.2 Systems of Selection and Training of Candidates for Judges in Foreign Countries. France

According to the French Constitution, the judiciary is the custodian of personal freedom, and the President of the Republic, with the assistance of the High Council of Magistracy, guarantees the independence of the judiciary (Articles 64 and 65 of the Constitution of October 4, 1958). These provisions are regulated in more detail by Decree No. 58-1270 of December 22, 1958, on the status of judges (with amendments and changes) and the relevant decrees on their application. (11)

In France, judges along with prosecutors are called magistrates. The President appoints magistrates is made by decree of the President of the Republic, but with regard to judicial posts, such decrees must be adopted on the basis of a confirmatory opinion or on the proposal (for the highest positions) of the High Council of Magistracy. The Superior Council of Magistracy is the main body for the selection of candidates for the position of judge. (12)

Among several methods of selection and appointment of judges, the main is the entrance contest to the National School of Magistracy (L'Ecole nationale de la magistrature (hereinafter – ENM)) in Bordeaux (more than 90% of the current judges are graduates of the School). Art. 14 of the Decree of December 22, 1958, on the status of judges. The school is granted the monopoly right to train judicial auditors ("trainee judges"). The school carries out educational activities in two directions: vocational training prior to assuming office and advanced training for practicing judges and prosecutors. The pedagogical mission of the school is divided between two main departments: The Department for Selection and Initial Training, which is located in Bordeaux, and the Department for Advanced Training and Professional Training, and International Relations, based in Paris.

Students before vocational training are trained for 32 months (almost three years), of which 1/3 of study time is devoted to classes at the School and 2/3 to internships at various institutions (court, bar, etc.). Upon graduation, final exams are held. listeners are paid a salary of 75-80% of the salary of the first instance judge. In the third year of study, a student takes tests and a classification exam, on the basis of which he is given a list of proposed posts. After choosing a specialization (juvenile judge, investigating judge, judge for civil or criminal cases, etc.), students are divided into groups and pass a monthly theoretical part within the walls of the National School and 5 months in court for the chosen specialization. (13-14)

2.3 Spain

The selection and training of judges in Spain are carried out in the Judicial School of the General Council of the Judicial Power (Escuela Judicial de Barcelona General del Poder Judicial) (Barcelona), which was established on the basis of Constitutional Law No. 16/1994 of November 8, 1994. The school carries out educational activities in two directions such as initial training of judges and prosecutors and advanced training for existing judges and prosecutors.

To enter it, you must pass a series of qualifying exams. The form and content of entrance examinations to the School of Justice are indicative. First, there is testing for screening from weak applicants, after which out of 4 thousand candidates a little more than one thousand people remain. After that, members of the General Council organize written and oral exams with the participation of examiners. The examination is carried out openly, anyone can be present in their process. After selecting the best applicants, students of the School of Justice receive the status of candidates for judges, close to the status of a judge. They receive a salary on their content, corresponding to 75% of the judge's salary. Training lasts 2 years and includes theoretical training of 9 months and 15 months of internship in various law enforcement agencies, the bar and in court.

For two years, students study the main branches of law and such additional disciplines as forensic medicine, economics, accounting, computer science basics, acquaintance with legal databases, legal language techniques; basic concepts of legal psychology; technique of managing groups of people, staff, management of a judicial institution; techniques of mediation and reconciliation in the judicial resolution of the conflict; legal sociology, stress tolerance, deontology. The practice in judicial institutions takes place in three stages such as an internship in the provincial courts and the prosecutor's office; in law offices; in the city courts. Training is conducted only by seconded acting judges and prosecutors with salary and employment retention, as well as professors, lawyers, legal practitioners, etc. At the end of the training, students do not take final examinations, and their rating is made up of the sum of admission points and points earned in the process. training and internships. According to this rating, the General Council of the Judiciary publishes a list of graduates with the distribution of their work in the courts of Spain, signed by the King of Spain. After that, students receive the status of judges. Further, the current judges undergo continuous training considering individual characteristics and specialization based on long-term individual plans. The latter is a feature of the Spanish model of education for current judges and was recently adopted in accordance with Constitutional Law No. 19/2003 of December 23, 2003, on Amendments to the Constitutional Law on the Judicial System No. 6/1985 (Ley Orgánica del Poder Judicial) of July 1, 1985.

The General Council of the Judiciary is to some extent similar to the Supreme Court of Justice of the Republic of Kazakhstan; however, the President of the Supreme Court of Spain also presides over this body. The General Council finances and implements the general management of the School of Justice, organizes entrance examinations that last up to 6 months since applicants for 60 places are more than 4 thousand people, approves all the plans and programs of study.

2.4 Germany

A peculiar system is developed in Germany. Here, preparation for the position of judge begins with studying at a university, where training lasts an average of four years. As a result, the first exam is taken, during which approximately a quarter of the candidates are eliminated. In fact, this is not an exam in the usual sense, but it consists of several parts. In case of successful passing the first state exam, a student is expected to have a 2-year Referendariat – practical training, where he is employed as a civil servant with a modest salary, and at the same time, he learns. Practical training is accompanied by courses that highlight the application of the law. The goal of such a preparatory service is to impart law enforcement skills. According to the results, the second state exam is taken, the results of which are given the title Assessor iuris (other names Assessor des Rechts, Rechtsassessor), they are often called “full lawyers” (Volljurist). They can work in any branch of German law. The grade for the state exam determines the “unwritten” rating specialist. For the post of judge, you must have a result “above average”. Approximately 15% of all students receive such an assessment. In fact, the period of study at the law faculty ranges from 6 to 8 years with passing 2 state exams, which are radically different from those taken, for example, we have exams. Although the age limit is not provided, by this time the average age of a candidate is 28 - 30 years. The appointment procedure varies depending on whether it is a question of federal courts or land courts and also depending on the level of the court. There are only a few vacancies per year, and you must first undergo special training. In general, the German system is focused on ensuring that judges have built their careers in court throughout their working lives since judges are appointed for life.

2.5 Portugal

In order to become a judge in Portugal, you must enroll and complete a basic training course at the Judicial Training Center (Centro de Estudos Judiciários, CEJ) in Lisbon. This Center was established in 1979 in the midst of reform under the auspices of the Ministry of State Supervision, but it also had organizational autonomy. The purpose of its creation is the formation of judges with a new legal conscience, as well as a technical one - training and professional development of magistrates, i.e. judges and prosecutors. The duration of study at CEJ is 2 years, of which 11 months are theoretical and practical training, during which audience study both legal disciplines (EU law, international law, administrative law, etc.) and near-law (psychology, sociology of law, English and etc.); 11 months is an internship in the courts, during which candidates prepare draft procedural documents, participate in the process and work of the courts in supporting roles. Training is conducted by acting judges (seconded from 1 to 3 years), retired judges, professors, lawyers, legal practitioners, etc.

After completing training at the Center, a person may participate in the competition for the appointment of judges and prosecutors. Candidates are assessed by a jury consisting of at least three members: one third of which consists of judges appointed by the High Council of Judges, another third from prosecutors appointed by the High Council of Prosecutors, and the rest of the jury are persons competent in matters of culture and rights and appointed by the Ministry of Justice. The chairman of the jury is appointed a director of the Judicial Training Center.

2.6 Great Britain

A general characteristic of the appointment system for judges in the UK is that there are no “career” judges. In contrast to countries that have an institutional system for selecting, training, and appointing judges only after receiving a classical legal education in the UK, judges are usually appointed from among those over 40 who devote the first part of their professional activities to work as lawyers or attorneys. It is also necessary to note another feature common to all levels of the judicial system: before becoming a full-time judge, an aspirant striving to

become a judge works as a part-time judge for a while. Judges of the appellate courts and district courts are appointed to their posts only after working for some time as judges of lower level courts, i.e., they move upward from level to level. The appointment of judges is led by the staff of the Judicial Group of the Department of Lord Chancellor. The appointment procedures are carried out by two divisions of this group: Judicial Division 1, which appoints judges of the High Court and above, district judges, recorders and their assistants; and Judicial Division 2, which appoints magistrates and registrars of the Supreme Court, district judges, magistrates and judges of the tribunal. (12)

Newly appointed recorders who have the jurisdiction of district judges must complete a one-week introductory course at the Council for the Training of Judges in Criminal Procedure. If the recorder is assigned to a county court and the Crown Court, he initially takes an introductory course in civil or family law. The Judicial Training Council organizes approximately 10–12 introductory courses per year and trains about 500 newly appointed judges. In addition to mastering the introductory course, the recorder also has to sit in court with an experienced judge for one or two weeks, get familiar with the work of the probation service and prisons. (15)

2.6 The USA

US Constitution 1787 (as amended) regulates the status of the court (the so-called judges of the third article of the Constitution). Judges of the third article of the Constitution are appointed for life (subject to the observance of correct behavior) and can be removed from office only through the impeachment procedure. Such cases are very rare.

Formally, there are no special educational or professional qualifications for judges, but traditionally candidates have a law degree. (16)

In matters of appointment of federal judges plays a big role policy. Candidate judges are nominated by the President, and then must be approved by a majority vote in the Senate. By tradition, the President consults with senators of specific states about candidates for filling vacancies in the federal courts of these states. The US Attorney General and staff members of the Presidential Administration also participate in the review process. The role of the judicial community in the formation of the judiciary is minimal.

Candidate judge is subject to scrutiny by the FBI. In addition, his professional experience and qualifications are studied by the American Bar Association, which gives its recommendations on the nominee to the President and Congress.

There are no special exams for candidates for judges in the United States. The main selection criterion for the appointment of any federal judge is work experience and academic achievement. A candidate judge must have extensive experience in the legal sphere. As a rule, practicing lawyers, prosecutors, or public defenders become judges. Lawyers have a college degree (usually four years of study), a law university degree (three years), and also pass a special exam to obtain a license for the right to practice law in a particular state. Most federal judges at the time of appointment have at least 15–20 years of legal practice.

A judge can start a judicial career from any level. Thus, a lawyer without any judicial experience may become a judge in the state court of the last instance or even in the US Supreme Court. (17) The United States does not have a system of targeted training for candidates for judges. Together with those here in 1967. The Federal Judicial Center, located in Washington, was established to conduct research and provide continuing education. Each newly appointed judge of the Federal Judicial Center sends a package of materials for self-study, the latest publications, as well as a catalog of published manuals, research, video and audio materials developed by the Center. For newly appointed district, district, justices of the peace, as well as judges examining bankruptcy cases, the Center organizes seminars. The

National College of Judges in Reno conducts weekly training courses that can be taken by newly appointed judges of state courts.

2.7 The Republic of Kazakhstan

In the Republic of Kazakhstan, the issue of formation of high-quality personnel of the courts, the selection and training of judges has always been given great importance, and a number of measures have been taken in this direction. One of the important measures is the establishment of the Supreme Judicial Council in order to ensure the constitutional powers of the President of the Republic of Kazakhstan on the formation of courts, guarantees of the independence of judges and their inviolability. Initially, this body was a consultative and advisory body under the President of the Republic of Kazakhstan. However, in the future, the activity of this body was constantly improved. (18)

The next most important measure was the creation in 2001 of a special institute for training the judicial system (hereinafter referred to as the institute) - the Institute for the Advanced Training of Judges and Employees of the Judicial System under the Supreme Court of the Republic of Kazakhstan. From this moment on, the formation of the institutional model of judicial education in independent Kazakhstan is going on. However, in the future, this institution underwent a number of transformations. So, in 2003, by the relevant Government Resolution, the Institute was changed to a state institution "Judicial Academy at the Supreme Court of the Republic of Kazakhstan". Later, by Decree of the President of the Republic of Kazakhstan dated May 31, 2005 No. 1583, this institute was transformed into the Institute of Justice in the structure of the Academy of Public Administration under the President of the Republic of Kazakhstan. However, by the Decree of the President of the Republic of Kazakhstan dated February 18, 2016, this institution was again transformed into the Republican State Institution "Academy of Justice under the Supreme Court of the Republic of Kazakhstan". This measure was taken in pursuance of the Plan of the Nation "100 concrete steps for the implementation of 5 institutional reforms", whereas part of the 18 steps, the Institute of Justice is directly separated from the Academy of Public Administration and transferred to the Supreme Court of the Republic of Kazakhstan. The main reason for the creation of the Academy of Justice is the strengthening of the relationship between training and judicial practice, as well as ensuring the training of current judges on a regular basis. In this organizational and legal form, this institution exists to this day. Despite the changes in the form, the content of the institution remained the same, as an institution specifically created for training the judicial system. However, the search for the most optimal form and content of training for the judicial system did not end there.

At the moment, in the Republic of Kazakhstan, on the initiative and under the leadership of the Chairman of the Supreme Court of the Republic of Kazakhstan, Zhakip Asanov, a large-scale project called "Seven stones of justice" is actively being implemented, representing the seven most relevant conceptual problems in the field of judicial power. By order of the Chairman of the Supreme Court of January 10, 2018, the portfolio of priority projects of the Supreme Court was approved, as well as the composition of the working groups on their implementation. The working groups are tasked to ensure the development of conceptual proposals for the further development of the judicial system. The objectives of further development are determined to increase confidence in justice and ensure the rule of law, through increasing justice, justice, responsibility and independence, high-quality court decisions and the competence of judges. Among these priority projects, the "Ideal Judge" was the first to be identified, the goal of which is to form a highly professional judiciary based on the use of international standards of independent justice that are adequate to the needs of modern Kazakhstan society.

On the whole, today a lot has been done in the republic for staffing the judicial system. Nevertheless, the results do not fully meet the expectations of modern society, the level of confidence

of the population, business, and investors in court is still rather low. The main reasons for this situation are seen in the imperfect mechanism of selection and promotion of judges, insufficiently effective processes and methods of training future judges, raising the skills of current judges.

At the present stage in Kazakhstan, the following procedure has been formed for appointing judges and training judicial personnel. Thus, in accordance with the current Constitutional Law of the Republic of Kazakhstan No. 132 of December 25, 2000 "On the Judicial System and the Status of Judges of the Republic of Kazakhstan", a person must meet the following educational and professional requirements such as to have a law degree and work experience in law specialty (at least five years of work experience as a court clerk, a consultant (assistant) of a court, a prosecutor, a lawyer, or at least ten years of work experience in the legal profession). In the presence of these and other statutory conditions, there are two possible options: 1) a person must pass a qualifying exam, undergo a one-year internship in court with a separation from the main place of work and receive a positive opinion from the plenary session of the court on the results of the internship; 2) a person can enter the magistracy at the Academy of Justice at the Supreme Court of the Republic of Kazakhstan and, after successfully completing the two-year graduate program, pass the qualification exam. In this case, the person is exempt from a one-year internship for four years from the date of graduation (Art. 29). Education in the magistracy lasts two years. The undergraduate scholarship is paid.

If the above conditions are met, a person may participate in the competition for the position of a judge, during whose passage he may be appointed for the position of judge for life. After being appointed as a judge for newly appointed judges, there are programs for mentoring and mentoring, which are aimed at supporting young judges and assisting in their adaptation to the profession, transferring experience to them from judges with experience (19-20).

Here you can highlight a number of problems. First, a small number of graduate students becomes judges. So, out of 53 persons who graduated from magistracy in 2017, only 7 people became judges, out of 62 persons who graduated from magistracy in 2018 only 13 became judges. This is due to the fact that there is no strict legal requirement that the person who completed the magistracy, must necessarily become a judge. As a result, the majority of candidates for judges have only a law degree and a certain work experience in the legal profession but do not receive any special training in skills and competencies necessary for the profession of the judge. Even the end of the magistracy cannot guarantee the good training of future judges. This is due to the fact that training in the magistracy is carried out according to the program of the specialty "Jurisprudence", i.e. This is a non-specialized training, not aimed at training just the judicial staff. The program standards have been approved by the Ministry of Education and Science of the Republic of Kazakhstan, from whose budget education in the magistracy is funded. Of course, the Academy attempts to adapt this program to the needs of the judicial system; the training is conducted by acting judges and other experienced legal practitioners, special courses on judicial enforcement are introduced, etc. However, as experience shows in the magistracy of the Academy, this is not enough.

As the experience of foreign countries has shown, an important condition for ensuring the high professionalism of the judiciary, independence, and impartiality of the judiciary is precisely the specialized professional training of the judiciary. This is the recommended international "gold standard" that most advanced foreign countries adhere to (with the exception of the countries of the Anglo-Saxon system, which is due to the peculiarities of the legal system, here judges are recruited from experienced lawyers with a long history of work).

We believe that the following areas of improvement of the system of professional training of judges in Kazakhstan can be highlighted. First, it is necessary to introduce the institution of a

candidate for a judicial position. This institution is widely used, as we indicated above, in a number of foreign legal systems. Secondly, all candidates for judges must necessarily undergo preliminary vocational training in a special educational institution - the Academy of Justice. All expenses for the training of candidates for judges should be borne by the state through the allocation of budgetary funds. This contributes to the implementation of international standards for the independence of justice, according to which, the effectiveness of justice depends on how successfully the idea of introducing this institution is implemented. In particular, the European Charter on the Status of Judges, where clause 2.3 stipulates the requirement for mandatory retraining of candidates for judges, "By obtaining appropriate education paid for by the state, the status ensures the training of selected candidates for the effective performance of these functions."

3 Results and Discussion

At the same time, candidates for the position of judges should be trained at the very last stage of their selection - after they pass a qualifying exam, receive advice from the relevant qualification board on appointing a judge, passing a polygraph examination, a special check, etc. Violation of such a sequence is not practical, as funds allocated from the state budget for the preparation of a candidate who has not passed the preliminary selection will be unjustified expenses of the state.

The basis of the model of such training can take the French National School of Magistracy (Ecole Nationale de la Magistrature).

In order to stimulate high-quality training of students, the best graduates (based on the nature and quantity of training, the grades obtained, the final rating) should have the priority right to select appointments to judge positions without further subjective selection.

It is necessary to improve the principle of "judges teach judges". At the present stage in Kazakhstan, judges of the Supreme Court of the Republic of Kazakhstan are involved in the process of training judges. However, there are a number of problems:

- it is quite difficult to combine teaching and judicial activities;
- the judges involved in the teaching process often do not have teaching skills;
- there are no incentives to enhance the teaching activities of acting judges.

These factors have a very negative impact on the quality of teaching. As we discussed above, in a number of foreign countries a holistic system of incentives and motivations for the voluntary participation of active judges in the training of future and newly appointed judges have been developed. This creates the conditions for attracting the best judges to teaching and also increases the prestige of both teaching and teaching in an institution that trains judges. For example, in France and the Republic of Korea, one of the prerequisites for the further advancement of a judge on the career ladder is teaching in an educational institution responsible for training judges. In these countries, personnel policy in the judiciary and the policy in the field of judicial education are closely correlated.

Given this positive experience of foreign countries, we believe that in Kazakhstan it would be possible to introduce the following:

- judges should be involved in teaching, apart from their main work as judges (from one to six years);
- it is necessary to create incentives and motivations for the best judges of Kazakhstan in order to attract them to the teaching of future judges and transfer their experience to them. Such incentives could be additional benefits (wage increases, etc.) and/or priority right to apply for a new, higher position, and other.

4 Conclusion

As a result of a comparative analysis of the selection and training of candidates for judges, the conclusion of questions about the legal framework for the selection and training of judges, the following conclusions can be drawn:

1. Unlike the standards enshrined in the international act and legislation of foreign countries in which there is a comprehensive system of preliminary training of candidates for judges, in Kazakhstan, in fact, there is no such systematic training of candidates for judges. The institution of the candidate for the judge is not formalized. Existing forms of education do not allow fully and systematically to fully prepare candidates for judges for their professional activities. This is largely due to the poor quality of administration of justice, judicial errors, low level of public and business confidence in the judicial system. In general, this has a negative impact on the socio-economic development of the country.
2. The following areas of improvement of the Kazakhstani system of selection and training of candidates for judges are based on advanced international experience. Firstly, it is necessary to introduce the institution of candidates for judges with the appropriate legal status and guarantees. Secondly, to establish a legislative requirement for mandatory preliminary training of all candidates for judges in a specialized educational institution - the Academy of Justice at the Supreme Court of the Republic of Kazakhstan, at the expense of the state, with the payment of proper salaries to students. Moreover, such training should be carried out at the very last stage of the selection of candidates for judges.
3. It is necessary to improve the principle of "judges teach judges" by involving experienced judges in the teaching, apart from their main work.
4. All these aspects should be regulated in detail in the constitutional law. We believe such a systematic approach contributes to improving the quality of judicial personnel, and hence the quality of the administration of justice and the protection of rights and freedoms of man and citizen in the Republic of Kazakhstan.

Literature:

1. Kozak DN. Sud v sovremennom mire: problemy i perspektivy [Court in the modern world: Problems and prospects]. *Sovremennoye pravo*. 2001;7:4
2. Neshatayeva TN. Ed. Modernizatsiya statusa sud'i: sovremennyye mezhdunarodnyye podkhody [Modernization of the status of a judge: Modern international approaches]. Moscow: Norma, Infra-M; 2011.
3. Peysikov VV. Pravovyye i organizatsionnyye aspekty otbora, podgotovki i povysheniya kvalifikatsii sudey [Legal and organizational aspects of the selection, training and advanced training of judges] [dissertation]. [Moscow]; 2006.
4. Haley JO. Judicial Reform: Conflicting Aims and Imperfect Models. *Washington University Global Studies Law Review*. 2006;5(1).
5. Bone RG. Judging as Judgment: Tying Judicial Education to Adjudication Theory. *Journal of Dispute Resolution*. 2015;1(8).
6. Goldbach TS. From the Court to the Classroom: Judges' Work in International Judicial Education. *Cornell International Law Journal*. 2016;49(3).
7. Mughal MA. Legal and Judicial Education Reforms in Pakistan: Role of Legislature, Judiciary and Executive. Lahore: Muneeb Book House; 2013.
8. Vavilov SV. Sovershenstvovaniye sudebnoy sistemy - odno iz osnovnykh napravleniy raboty Komiteta Soveta Federatsii po pravovym i sudebnym voprosam [Improving the judicial system is one of the main areas of work of the Committee of the Council of the Federation on Legal and Judicial Issues]. *Rossiyskoye pravosudiye*. 2006;1:24-25.
9. Universal Charter of Judges (unanimously approved by the Central Council of the International Association on November

- 17, 1999). Russian Justice № 23,34; 1999. Available from: https://online.zakon.kz/document/?doc_id=31246709
10. Eastern Partnership - Promoting Legal Reform in the Eastern Partnership Countries. Strasbourg; 2012. Available from: https://vkksu.gov.ua/userfiles/doc/cepej/Zvit_profesiyni.pdf.
11. Canivet G. The Responsibility of Judges¹ in France. Cambridge Yearbook of European Legal Studies. 2003;5:15-33.
12. Vlasov IS. Naznachenije na sudeyskuyu dolzhnost' [Naming for judgeship]. Sud'i v zarubezhnykh stranakh. Zakonodatel'stvo zarubezhnykh stran. 1991;2:2-3,17.
13. Abdrasulov YeB. Otor i pervonachal'noye obuchenije sudey: mezhdunarodnyy opyt [Selection and initial training of judges: International experience]. Available from: <https://www.zakon.kz/4915130-otor-i-pervonachalnoe-obuchenie-sudey.html>
14. Dosmanova ZhE, Kurmangali MSh. Nemetskaya sistema podgotovki yuristov: obshchaya kharakteristika [German legal training system: General characteristics].
15. Reese DW. Sudebnaya sistema: funkcionirovaniye i podgotovka kadrov [The Judicial System: Functioning and Training]. Proceedings of the International Conference "Experience in the Training of Judges: Practice and Prospects". Moscow: RAP; 2001: 69-79.
16. Tumanov VA. Ed. Sudebnyye sistemy zapadnykh gosudarstv [judicial systems of western states]. Moscow: Nauka; 1991.
17. Burnham W. Legal System of the United States. Moscow: Novaya yustitsiya; 2006: 311-323.
18. History of the Supreme Judicial Council. Vs.gov.ks; 2016. Available from: <http://vss.gov.kz/node/1053?language=en>
19. Yessembayeva Zh. Features of the legal status of judges: Kazakhstan experience and foreign realities. Opción. 2018;33(85):447-474.
20. Kachkeev M. Judicial independence in Kyrgyzstan and Kazakhstan: A legislative overview. Judicial Independence in Transition. 2012;233:1255-1275.

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K. MUSAEV ABOUT THE TURKIC ALPHABET: THE AGE-OLD TRADITION AND PROBLEMS OF UNIONS

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Abstract: According to K. Musaev, the impossibility of a full understanding of Turkic peoples without a common alphabet is reasonably comprehensive scientific analysis of modern Turkology, where the study of languages should be based on ethnological and cultural foundation, as the requirement of today is to make public, ethnic, cultural value of Turkology, to fully comprehend the meaning of the ethnic history, cultural history of the state and inter-state relations, people and international relations in the development of language, understand the fact that it is through linguistic unity merged tribes and the emergence of nation as a nation with its own traditions, its culture, with its national world view. External factors can not completely change the linguistic system, but in the formation process of the ethnic group related languages dialects and played a role, enriching language audio features, which after a long historical development, resulted in a particular language system, with its domestic laws, with only her inherent properties, with its morphology, phonetics and semantics.

Keywords: comparative-historical study, common Turkic alphabet, Turks, grammatical features, sound system.

1 Introduction

The beginning of the 60s is a time when, apart from the languages of small Turkic peoples, the grammar of the peoples of the individual republics and autonomies of the Soviet Union was written.

Even if it was created, it was only under severe control and with the permission of the center. In addition, the scholars who study the languages and the history of the Turkic peoples were subjected to persecutions of the former capital of Almaty, who were referred to remote areas, where they were forced to work in educational institutions.

At that time (1964), the work of K.M. Musaev "Grammar of the Karaitic language" was published, the materials of which the author painstakingly collected from a small number of representatives of the Karaitic people who lived in Lithuania and Ukraine (1957-1963). This publication analyzes the phonetic system and grammatical features of the Karaitic language, the materials of which, to this day, are one of the important sources for comparative such as historical research in modern Turkic studies. According to Professor D. Iskakyly, (1) "Out of forty Turkic languages, six are the state languages, twelve have the status of an autonomous language which is maintained by virtue of current laws and their capabilities in varying degrees, the rest can be credited to a number of defenseless languages". Some of them have weakened so much that only a few native speakers have left. For example, Karaitic language is spoken in Lithuania by 20 people, in Ukraine by 10 people, in Poland by 10 people. And if this handful of people die, the Karaitic language will die. Consequently, the Karaitic language is on the verge of extinction. This means that not only the Karaitic language will disappear, but also the whole spiritual world created on it.

But also, the people who spoke it, the descendants of the Göktürks rulers, whose possessions stretched from the Pacific to the Atlantic Ocean.

2 Materials and Methods

After independence, some Turkic-speaking republics switched to the Latin script, and even after that, the scientist raised the problem of preserving the Turkic languages remaining in the Russian Federation. A good example published in 2008 in textbook "Kazakh language", written for Russian Kazakhs in Russian.

Assessing the current state of the Turkic languages the scientifically substantiated opinion of K. Musaev on the possibility of further misunderstanding of each other of the Turkic peoples without a single common Turkic alphabet

occupies a special place. It is known that Azerbaijan, Uzbekistan, Turkmenistan, using various modifications, switched to the Latin alphabet. However, there are more unresolved issues, as there is no common Turkic system approach for the graphic representation of sounds.

According to Professor A. Zhunisbek, (2) "Scientific reforms are waiting for Turkic linguistics and they must begin with phonetics. The main leitmotif of the reform is to determine the place of the Kazakh (Turkic) language in the composition of world languages. Consequently, the main goal is to review the genealogical classification of world languages. As a result, the laws of the Kazakh (Turkic) language will be revealed, on the basis of which the scientific research apparatus will be formed. Thanks to getting rid of the theory of languages that prevails over Kazakh (Turkic) linguistics, we will be able to determine the true phonetic composition and system through the prism of our own (native, original) theory."

The articulatory-acoustic aspects of the phonetics of Turkic languages are now widely considered. Along with the physical characteristics of the articulatory and frequency characteristics of the sounds of a language, their nature of hearing is also investigated. In recent years, the interest has been increased in studying the characteristics of hearing (sounding), as researchers have the opportunity to determine the importance of the characteristics of language signals and make appropriate sound analyzes that open up an individual (independent, special) method of studying phonetic units of a language. The perception of phonetic signals is an obligatory stage of the language relation and its research plays an important role in the study of the sound properties (features, qualities) of the language. When comparing the lexical composition and grammatical structure of modern Turkic languages, a relationship is observed, the identity is inherent in these languages, but from the phonetic point of view, along with significant similarity, there are fundamental differences. (3-5) By means of certain language features, they differ from each other. The centuries-old history of these languages evolved differently, therefore, individual characteristics are natural, since the place of residence, formation, development, science and education, culture, customs, and traditions all developed separately. So each of them by being an independent nation has an individual language. Naturally, these languages have individual features.

After gaining independence of the country, freed from the shackles of Soviet politics, we were able to openly express once-veiled thoughts, put the historical past on the scales of justice, openly show the real reasons for cultural and spiritual styling, search for and eliminate the deep roots of these mistakes, and restore the spiritual consciousness.

One of the prominent figures such as Academician K.M. Musaev raised actual problems associated with the Kazakh language, of that time. In particular, the problems of lexicography of spelling, orthoepy, the culture of speech and translation.

Existing in other Turkic languages, problem-solving, connected with the improvement of the Turkic alphabet, has always been the object of attention of the scientist.

The principles proposed by K.M. Musaev, on eliminating differences in the graphic representation of the sounds of the Turkic languages, which are not in Russian, have found wide application among researchers and compilers of national alphabets.

Of course, it is impossible to fully display the graphical features of the sound of the Turkic languages. Therefore, the scientist pays special attention to spelling and orthoepic dictionaries, which are the basis for the preservation of the national language. For example, in modern Kazakh language *сыыр-сығыр* (Old Turkic), *жыын-жыйын-йығын* (Old Turkic), *қын-қийын*,

жуын-жууын-йугын (Old Turkic), буын-бууын-богын (Old Turkic), сауын-сагын (Old Turkic), and others. The scholar systematically used such language information as examples in his writings.

The ideas of K. Musaev about a single alphabet of Turkic peoples found support from scholars of Turkic-speaking countries. For example, the doctor defended his doctoral thesis on the history of the Kazakh alphabet and made changes in connection with the current political and social situation, the results of which were published in the media and widely discussed.

In 1926 Turkic peoples that are part of the Russian Empire, switched to Latin. With hope for the future, the remaining 1500 years of historical Arabic writing, Turkey moved to the Latin script. Unfortunately, in 1940 the alphabet of the Turkic peoples that were part of the USSR is forcibly replaced with a Cyrillic alphabet. As a result, the sounds common to the Turkic languages such as *к, з, ң, ҫ, ө, Ү, і, ә* are used in the Kazakh language as separate in other languages by combining letters, or, for example, in the Kyrgyz language it has reached orthoepic pronunciation. (6-7)

Such spelling and orthoepic differences in the alphabet negatively affect the learning of the Kyrgyz national language. Since orthoepically after a solid vowel, there should be voiceless hard consonants. In spelling, this law is not respected. For example, in the spelling of Кыргызстан, in the pronunciation of Кыргызыстан. Consequently, we should pay attention to the opinion of scholars who state the fact of violation of pronunciation in the language of the young generation of original Kyrgyz words. (8)

Professor S. Myrzabekov. (9) who made a huge contribution to the development of Kazakh phonetics, says about the combination of sounds, "Combinations of sounds are the possibility of sounds to fight each other in the same row, this is a historically formed place. They are the offspring, the result of the transfer from generation to generation of an improved, systematized art of speech."

In clarifying the history of the life path of modern Turkic languages, it is necessary to open the veil of secrets of symbols in this language, carved in ancient times, on wooden, stone products and other objects.

On this occasion, A.M. Shcherbak, (10) relying on long-term studies of Turkic languages, notes that "in order to determine the writing history of the Turkic languages and cultural and spiritual history, it is necessary to consider the pre-Turkic periods." The author here apparently refers to inscriptions carved before Christ, the Orkhon-Yenisei script, and the written heritage of the X-XIV centuries, which are often mentioned by scientists of the older generation.

K.M. Musaev as a great theoretician of Turkic languages is one of the creators of the collective 6-volume work "Comparative Grammar of Turkic Languages", published in Moscow, where the scientist actively participated in writing some sections and general editing. The new concepts proposed by K. Musaev in this authoritative work reversed the opinion of Russian scientists and forced them to renounce the old ingrained theory.

In his second work, the scientist removes special attention to the problems of studying the history of the lexicology of the Turkic languages and laid the methodological foundations of their solution.

Separately considered lexico-thematic groups, the author with examples proved the territorial distribution of modern Kipchak languages, their similarities, and differences in the semantic space, depending on the area. Since the historical dictionaries of the Kipchak languages have not yet been created, the scholar had to not only collect archaisms from the works of folklore and monuments of literature but also scientifically proved using the comparative historical method while preserving all its principles,

which speaks of his extraordinary diligence and responsibility to science. (11)

A new milestone in Turkic studies is the monographic study "The Lexicology of Turkic Languages" which has made a great contribution to the development of this science, in which one of the main and important theoretical problems of historical lexicology - the connection with world languages, is considered. The author, by exploring the internal integration and differentiation of Turkic languages in the lexical-semantic space, identified the main directions of research and ways to solve them. Borrowing words from each other, the presence or absence of one lexical unit, in a given language, is not a fact of the absence of a word in general since they can occur with some phonetic changes due to historical and extralinguistic events. In this regard, the use of historical-semasiological, historical-comparative methods in a certain sequence suggests that beyond their limits the constituent lexico-semantic groups of words, now not related languages, may be preserved in the vocabulary of other nations, as well as the possibility of a different meaning in another language. For example, in the modern Kazakh, the meaning of archaism *жарғақ* is known, which has its derivative phrases (*жарғақ, шалбар, жарған, құлағы жастыққа тимей,* and others). In Karaite language, it means "paper made of leather; parchment". Consequently, the lexical space has been expanded, the word from Kipchak language has acquired a different meaning. According to the scientist, it is first necessary to conduct comparative studies within the Turkic languages, then there will be opportunities for determining the linguistic features of the Oguz, Kipchak, Karluk groups. (12-13)

All this should be carried out taking into account the geographic location of the professional educational peculiarity of the Turkic peoples. Prior to this, in linguistics, phonetic and morphological features were taken as the basis for identifying language features. The work of K. Musayev showed that at the lexical level of the language historical and cultural information is long preserved, which tells us about relations with other countries.

One of the urgent problems affected by K.M. Musaev (14) is the kinship of the Altai languages, the problems of the common roots of the Turkic and Mongolian languages. Questions of Altai language kinship did not leave the agenda. In this case, the opinion of scientists differ. Some consider the features common to these languages, associating them with a single foundation, while the latter argue that this is the result of a historical phenomenon of the adoption of words by peoples who lived in the neighborhood for many centuries and had similar traits in everyday life. Supporters of both opinions prove the assumptions, citing linguistic facts.

Another problem investigated by the scholar in the book "Syntax of the Carim language" is the etymology of the ethnonym Karaim. The author, unlike the established opinion in Turkology, the meaning of the ethnonym Karaim Kara ("read, learn"), considers the connection with the ethnonym Kerey, a clan community that was part of the Kazakh Khanate. For example, it is known from history that the descendants of Botbai, one of the sons of Dulat, formed and ruled the small Bolghar i.e., modern Bulgaria, thus it is necessary to prove the scientific importance of the historical ethnogenetic connection of the Crimean Karaites and the Keraites. (15)

When clarifying areal differences and common features, the historical development of modern Turkic languages, namely from the point of view of historical phonetics, is the process of sound change of individual phonemes and the historical systematization of phonetic patterns; from a grammatical point of view is the historical development and the formation of grammatical categories and forms in the Turkic languages; in the definition of the word-formation system is the historical and semantic structure of the root; historical development of the word stock and vocabulary and all of the listed language system is based on medieval written monuments that become the object of research in modern Turkology. Nevertheless, there are specific difficulties related to the meager amount of the written heritage, fully covering the periods of the historical development

of the Turkic languages or, for some reason, not introduced scientific circulation when creating historical grammar and phonetics, historical word formation and lexicology, creating historical dictionaries. Summing up, we see that in recent times, researchers in various degrees are turning to the scientific and methodological conclusions of academician K.M. Musaev. The specific language materials presented by the researchers from the above-mentioned written Kipchak Monuments (12th-17th centuries) state (clarify) the uniform glottogenesis of Kipchak languages and this is a scientific problem - a prerogative of ethnolinguistics. (16-17)

The peculiarities of social development and the fundamental shift in the state of the language situation among the Turkic-speaking peoples formed new tasks in Turkic studies and identified new approaches to solving theoretical and practical issues. During this period, the most prominent figures of the scientific paradigm that were formed in the Turkic linguistics were E.D. Polivanov, Acad. A.N. Samoilovich and their younger colleague N.K. Dmitriev. The scientific and scientific-organizational activity of Acad. A.N. Samoylovich is proved to be a strong link that connected the main trends of the Turkological scientific paradigm of the Radlovian period with the Soviet era, thanks to which this line was not interrupted and remains in science until recently; it provided the basis for the development of the new paradigm of the 30s-50s construction (writing, alphabets, spelling, the formation of new literary languages, dictionaries, textbooks, generalized descriptions of languages, etc.). (18-19)

A noticeable shift in Turkic linguistics occurred in the 50-60s, the impetus for which was the rejection of Marrah dogmas. It was then that the scientific and organizational N.K. Dmitriev's talent, who revived comparative historical research in domestic Turkology and generally raised its development to the level of world linguistic science. It would not be an exaggeration to say that the formation of a new scientific paradigm in Turkology, the paradigm that largely determines the face of this branch of Russian science today, is associated with its name.

The structure of the Turkic scientific paradigm of the Soviet period was clearly presented by Acad. A.N. Kononov, who singled out in her 10 directions:

- phonetics and grammar of modern Turkic languages;
- lexicography and lexicology;
- dialectography and dialectology;
- the history of the formation of the Turkic national languages;
- the study and publication of monuments of Turkic writing;
- historical phonetics and grammar of individual Turkic languages and comparative historical phonetics, and grammar of groups of Turkic languages;
- "Altai theory" and Turkic linguistics;
- description of the Turkic manuscripts;
- history of Russian Turkic philology;
- bibliography of domestic Turkology.

These directions were represented in almost all scientific Turkic centers of the country both in the central and in the peripheral, republican. In those years, in the USSR, there seemed to be a common Turkological scientific space, the unity of which was organizationally created and coordinated thanks to the activities of the Soviet Committee of Turkologists at OLYA Academy of Sciences and was supported by the All-Union scientific journal "Soviet Turkology".

In the framework of the Turkological paradigm of the 70s-90s, these areas of research have developed successfully. It was during these years that the comparative-historical studies of the Turkic languages advanced greatly, the historical phonetics and morphology of which were represented by three holistic concepts of A.M. Shcherbak, B.A. Serebrennikova, and N.Z. Gadzhieva, a group of Moscow Turkologists under the leadership of E.R. Tenisheva, as well as many fundamental works on the study of individual categories (G.F. Blagova, I.V. Kormushin, E.V. Sevortyan). Experiments have been written to

describe the history of individual Turkic languages or their grammatical categories such as Uzbek (E. Fazylov, Sh. Shukurov, U. Tursunov, S. N. Ivanov, Kh.G. Nigmatov), Azerbaijani (M. Shiraliyev, M. Ragimov, A. Akhundov, H. Mirzazade, E. Demirchizade), Turkmen (Z. Mukhamedova, S. Akhally, M. Hydyrov), Turkish (E.A. Grunin, V.G. Guzev, P.I. Kuznetsov), Chuvash (L.S. Levitskaya, V.G. Egorov), Karachay-Balkar (M.A. Khabichev, A.A. Chechenov), Kazakh (A.T. Kaydarov, N.O. Oralbaeva, G. Aidarov, A.K. Kuryshzhanov, E.Z. Kazhibekov, K.M. Musaev), and others.

3 Results and Discussion

With regard to the terminology of the Turkic languages, there is an opinion that there is an established terminological system in individual languages, as well as its absence. For example, if scientist K.M. Musaev (20) considers that terminological spheres are not fully settled in the Turkic languages, according to Kh.F. Iskhakova (21), "The modern stage of development of the Turkic languages is characterized by a high degree of elaboration of terminology associated primarily with the humanities, and only on them in the native language are the scientific works currently printed and teaching in higher education."

As an argument, K.M. Musaev (14) gives the following, "the terminological system is largely determined by the existence of national-Russian bilingualism and Russian monolingual in a number of areas. In addition, the development of terminology in different Turkic languages, along with common points, is different in each of the republics, since literary languages and, accordingly, national terminological systems have different historical fates."

Supporting the idea of an isolated development of the terminology of the Turkic language from each other, the existing difference in historical destinies, the peculiarities of the process of forming a national culture, the quantitative composition of the media, the ethnic environment of the people, the researcher L.Kh. Makhiyeva (22) argues that "despite the commonness of the original vocabulary of the languages of the Turkic system, in modern Turkic languages there is a big discrepancy in the term of creation. It affects the specificity of each literary language."

From all this, it follows that the kinship of the Turkic languages under the influence of extralinguistic factors is lost and weakened at the present stage. Of course, as a result of this process, the language is clearly divided into the vocabulary of a language, it becomes less understandable to speakers of different Turkic countries. New laws appear in the language, displacing the old through another dominant language. For example, the weakening of the law of harmoniousness in the Tatar language, etc. However, the typology of the language and the motivation of word creation in the Turkic languages today are quite similar. They still have a metalanguage. The scientist N.Z. Gadzhieva (23) spoke about this, "The main lexico-semantic groups of words such as the terms of kinship, the names of wild and domestic animals, the names of objects (nouns), the names of qualities (adjectives), the names of actions (verbs), etc. constitute the common Turkic vocabulary, presented in all areal groups of Turkic languages. Unlike other typological languages, the Turkic roots, and the derivatives of the foundations were phonetically relatively little transformed. With the observance of phonetic laws, it is not difficult to carry out phonetic and morphological reconstruction, cf. *qara* 'black', Turkic - *kara*, Kумык, Nogai, Kazakh, Kyrgyz - *qara*, Azerbaijani - *qara*, Tatar - *qara*, Chuvash - *xpa* etc."

In this regard, it is necessary to note the process of chaotic borrowing, which is destructive for the original grammatical categories and laws of the language. According to the researcher N.Z. Gadzhieva (23), "All borrowings in the Turkic languages in terms of word formation and inflection, as a rule, obey the internal laws of the Turkic languages. However, there are a number of linguistic features of the Turkic languages that are the result of lengthy processes due to the influence of a foreign language environment, cf. the processes of destruction of vowel

harmony, reduction of long vowels, increased delabialization, an inconsistent reflection of early Turkic, etc.". In our opinion, this is the result of chaotic borrowing. In this connection, the problem of preservation and the problem of the own development of the internal laws of the Turkic languages arise. Studies in terms of comparative phonetics and grammar allow using the material to enrich the Turkic languages through another Turkic language. For example, only the passive voice in all Turkic languages has as its indicator *-л, -ыл/-ил*; reflexive *-н, -ын/-ин*; reciprocal *-ш, -ыш/-иш*; causative has a variety of affixes, the most common of which are *-тыр/-тир, -т, -ыт/-ит, -ыз/-из*. Comparative work in terms of vocabulary and grammar allows us to talk about the kinship of a particular language and the possibilities of addressing these languages as an object of enrichment of the lexical fund, the development of forms of formation of terms. Formation of terms in language requires the term of creation. Under which the principles of terminology are observed, and the methods of terminology such as morphological, syntactic, lexicon-semantic, loan translation are used. Among which the morphological method gives a visual similarity of the grammatical structure of the Turkic languages. The scientist N.Z. Gadzhieva (23) spoke about the presence of uniform grammatical forms, "There are quite a few universal tendencies in the historical development of the vocabulary of the Turkic languages cf. development of significant words in service and some service elements in affixes, development of particle-based conjunctions, etc."

For example, the word formative suffixes of the Azerbaijani – **әк/-ек** (*чәүмәк (шүмек), лүләк (кран)*) are similar to the Kazakh suffixes **-ак/-ек** (*бармақ, қармақ, шүмек, ілмек*).

Along with this, in all Turkic languages, such suffixes as **-ым/-ім** as are also actively used by the formation of terms. For example, in the Kazakh language terms *желім, қысым, өсім*. In the Chuvash language, the phonetic variant **-ем** in words *чикем*, in Tatar language *чыгым* etc. The identity and prescription of this affix is confirmed by the presence of similar forms in the dictionary of ancient Turkic languages by M. Kashkari: *алым* (алым, алашак), *өлүм* (өлім). In their scope of use, the suffixes *ым/ім* are used to express a process. This can be in combination with affixes **-ыл/іл**, for example, in Kazakh language *жаз+ыл+ым, айт+ыл+ым*; in Azerbaijani language *уду+л+ма*; in Tatar language *куш+ыл+ма* etc.

The presence of similar word forms allows you to pay attention to this term, its term-forming element and its terminological potential as a whole (terminological family, aesthetics, laconicism). Today, the terminology of the technical sphere is poorly developed in the Turkic languages. The reason for this phenomenon, scientist K.M. Musaev (24) explains in this way, "There is little publication of original scientific and technical literature in Turkic languages, therefore their scope of application is limited mainly to the humanities". This is also one of the main reasons for creating a single terminological fund. Today, learning Turkic languages occurs differentially (E. Akhunzyanov - Tatar language, R. Bekjanova - Kyrgyz language, T.A. Bertagaev - Mongolian and Buryat languages, R. Budagov - Azerbaijani language, L.X. Makhieva - Karachay-Balkar language). In this regard, there is a great opportunity to direct the term of the creation of Turkic languages in one direction. In our opinion, the question of creating a single terminological fund is also relevant, where the general principles of terminology can be applied. For these purposes and for further intensive integration, targeted research work on Turkic languages and a comparative analysis of each language with other Turkic languages are necessary. Thus, we can strengthen the term of the creation of each Turkic language. However, this should not be attributed to bulk copying. The term of the creation of each language should be developed directly according to the model of a single terminological fund of Turkic languages while preserving the national peculiarities of languages. According to the researcher Kh.F. Iskhakova. (21) due to the specificity of the tasks facing the experts in the field of terminology of developing national languages, it is impossible to follow the path of simply copying the developments of other

languages. Here we are in solidarity with the inadmissibility of simple copying. But we must take into account the achievements of other languages, if the practices of related languages are successful and correspond to the norms of our own language, then, in this case, we can apply them in our language.

4 Conclusion

The Turkic peoples, leaving the Arabic script, switched to the Latin alphabet, then to the Cyrillic after that, each one selecting the appropriate characters. Using one alphabet in their own way, nations spiritually moved away from each other.

As a result, they concluded that they no longer read (understand) each other correctly. It is known that the language basis such as writing is a superstructure. This is a philosophical concept. Each graphic (writing) due to its characteristics should show the sound capabilities of the language. In the history of the Turkic peoples of this function, the Old Turkic, Old Uyghur, and Arabic alphabets fully corresponded. In the works devoted to this topic, K.M. Musaev paid great attention to the formation of a common Turkic alphabet.

Literature:

1. Iskakuly D. Proceedings from the International Congress of Turcology: Ғаламдасу дәуіріндегі түркі тілдері [Turkic languages in the era of globalization]. Turkestan; 2013: 354-8.
2. Zhunisbek A. Қазақ фонетикасы [Kazakh phonetics]. Almaty: Arys; 2009.
3. Gökalp Z. Түрікшілдіктің тарихы [History of Turkism]. In: Turkic anthology. Astana; 2012: 481-6.
4. Malbakov M. Proceedings from V International Congress of Turkic Dialogue. Cultural Integration and Unity of Civilizations: Қазақ әліпбиін латын графикасына көшірудің өзекті мәселелері [Actual problems of translation of Kazakh alphabet to Latin graphics]. Turkestan; 2013: 104-10.
5. Oflazer K. Turkish and its challenges for language processing. Language Resources and Evaluation. 2014; 48(4), 639-653.
6. Gallagher R. On modern terminology in the Turkic languages of the U.S.S.R. Central Asiatic Journal. 1981; 25(3/4):213-29.
7. Erdal M. A grammar of Old Turkic. Leiden; Boston; Köln: Brill; 2004.
8. Trubetskoy NS. Osnovy fonologii [Basics of Phonology]. Moscow: Aspekt Press; 2000.
9. Myrzabekov S. Қазақ фонетикасы [Kazakh phonetics]. Almaty: Kazakh University; 2004.
10. Shcherbak AM. Sravnitel'naya fonetika tyurkskikh yazykov [Comparative phonetics of Turkic languages]. Leningrad; 1970.
11. Kara D. The formation of modern Turkic 'Ethnic' groups in Central and Inner Asia. The Hungarian Historical Review. 2018; 7(1):98-110.
12. Oztopçu K, Abou Z, Kambarov N, Azemoun Y. A dictionary of the Turkic languages: English, Azerbaijani, Kazakh, Kyrgyz, Tatar, Turkish, Turkmen, Uighur, Uzbek. New York: Routledge; 1996.
13. Tantuğ AC, Adalı E. (Machine translation between Turkic languages. In: Turkish Natural Language Processing. Theory and Applications of Natural Language Processing. Springer, Cham; 2018: 237-54.
14. Musaev KM. Sovremennyye problemy terminologii na tyurkskikh yazykakh SSSR [Modern problems of terminology in the Turkic languages of the USSR]. Sovetskaya tyurkologiya. 1989; 4:18-30.
15. Johanson L, Csato EA. The Turkic Languages. New York: Routledge; 1998.
16. Winner T. Problems of alphabetic reform among the Turkic peoples of Soviet Central Asia, 1920-41. The Slavonic and East European Review. 1952; 31(76):133-47.
17. Zeynalov FR. O neobkhodimosti sozdaniya sravnitel'nogo slovary lingvisticheskikh terminov tyurkskikh yazykov [On the need to create a comparative dictionary of linguistic terms of Turkic languages]. Sovetskaya tyurkologiya. 1973; 4:68-71.
18. Frankle E. Some problems of word formation in the Turkic languages. Journal of the American Oriental Society. 1948; 68(2):114-20.

19. Schönig C. The internal division of modern Turkic and its historical implications. *Acta Orientalia Academiae Scientiarum Hungaricae*. 1999; 52(1):63-95.
20. Musaev KM. *Lexicology of Turkic languages*. Moscow: Science; 1984.
21. Iskhakova KhF. *Struktury terminologicheskikh sistem. Tyurkskiye yazyki* [Structures of terminological systems. Turkic languages]. Moscow: Nauka; 1987.
22. Makhiyeva LKh. *Formirovaniye i razvitiye lingvisticheskoy terminologii karachayevobalkarskogo yazyka* [Formation and development of the linguistic terminology of the Karachay-Balkar language] [dissertation]. 2003.
23. Gadzhieva NZ. *Yazyki mira. Tyurkskiye yazyki* [Languages of the world. Turkic languages]. Moscow; 1997.
24. Musaev KM. *Struktura i semantika kornya. Leksikologiya tyurkskikh yazykov* [The structure and semantics of the root. Lexicology of Turkic languages]. Moscow: Nauka; 1984.

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PROBLEMS OF THE FORM OF LAW: THE CURRENT STATE

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Abstract: The forms of law constitute a harmonious part of the general legal culture, and in this connection, it is important to develop them in the general cultural stream. The Kazakh society, after having gone through decades of difficult search and reforms, has not yet reached stability in the new environment. Fundamental changes affected the system of forms of law. The intensification of local and customary legal regulation, as well as the expansion of contractual forms, have become modern trends, as a result of which the determination of the place of these phenomena in the system of forms of the law becomes a relevant scientific problem.

Keywords: Republic of Kazakhstan, legal act, law, legality, method of legal regulation.

1 Introduction

The relevance of the study of forms of law is to a large extent predetermined by the fact that the legislation system, when increasing in volume, enters into conflict with itself, becomes cumbersome, and loses its integrity and unity. Under the rule of regulatory legal acts, the role of other forms of law has become controversial but has not been completely lost. They replaced auxiliary forms of law.

The purpose of the article is to explore the interaction between elements of the system of forms of law, to develop recommendations for improving lawmaking, for enhancing the effectiveness of legislation, for organizing the interaction of regulatory legal acts with other forms of law.

The methodological basis of the research is a set of basic methods of knowledge such as the system-functional, sociological, comparative legal, cultural, formal legal, historical logical ones. The main method is system-functional one. The systematicness of forms of law implies the existence of links between its elements and their interaction. The system of forms of law interacts with macrostructures, primarily with the legal system of the state. The study of the problems of lawmaking requires, in addition to the formal legal methods of cognition, the application of methods of sociological analysis.

The need for the development of forms of law in the modern environment is predetermined by changes in legal thinking. The emerging legal system of the modern Kazakh state, which is striving to become legal, social and democratic, cannot be based solely on positivist principles. The basis of legal statehood is a fair law that implies referring to the sources of law. Legal reform has affected the whole mechanism of legal regulation, the deep layers of legal consciousness. At present, a change in the type of legal regulation is occurring. A dispositive and permissive model replaces the imperative and authorizing mechanism. The dispositive method of legal regulation opens up a broad road to various forms of law that, in the recent past, have essentially been supplanted by normative legal acts. The legal state implies the implementation of the thesis on the objectivity of lawmaking. The world of forms of law is extremely diverse, and it could be fully developed if such forgotten forms as "bookish", local, and religious laws were returned to scientific use. For these purposes, it becomes necessary to study the links between various forms of law that ensure effective legal regulation.

The development of business relations and the formation of local self-government have actualized the problem of local corporate law. Although this phenomenon occurred in the history of law, the relevance of the issue of the legal status of local acts today is that they actively claim the status of a form of law. The lawmaking practice of the last decade of the twentieth century and the beginning of the twenty-first century is characterized by the weakening of such features of a normative act as normativity, duration of existence, and universality. The development of a scientifically based approach to the essence of a normative legal

act and its place in the system of forms of law seems to be relevant for lawmaking.

The current problem is the quantitative and qualitative correlation of legal acts and by-laws. It is necessary to develop correlation criteria for regulations both vertically and horizontally. If for vertical links the decisive importance belongs to the legal force of acts, then horizontal links require an analysis of their content. In the absence of a law on regulatory legal acts, the development of such definitions as "decree," "resolution," "order," "instruction," "provision," and "rules" becomes an urgent problem. Of great importance is a systematic approach to the forms of law, with which all elements find their place in a hierarchical organization, and the forms of law are considered as a diverse complex.

From the point of view of philosophical science, the form of law is its external expression, the image in which law exists and operates. The most appropriate form of external expression is the word. However, the types of these forms of expression are not limited to this. It can be assumed that the path to formulating the definition of the forms of law is advisable to begin with an assessment of its characteristics. In scientific literature, the following features of the form of law are distinguished: compulsion, normativity, certainty, stability, well-knownness, and government support. In addition to the above features, the sources of law must have another external feature - the legality of the source of law, i.e. the legitimacy of its occurrence and functioning. (1)

In general, the author agrees that legality (legitimacy) is most often inherent in the forms of law. However, this feature cannot be absolutized for the following reasons. The issue of legitimacy is relevant only for regulatory legal acts. Indeed, for them, the procedure of creation, the competence of the legislating body is an incomplete list of requirements for legitimacy. The absence of this feature for a regulatory legal act implies the possibility of its abolition.

On the other hand, it is difficult to raise the question of the legitimacy of other forms of law. For example, it is impossible to reveal the legitimacy of creating a custom since it arises directly from social practice, without special procedural rules.

2 Materials and Methods

It is possible to assess the legitimacy of custom in the sense of its compliance with regulatory acts. Such an approach seems correct under the rule of etatical positivism. Nevertheless, with other approaches to law, this obviousness disappears, moreover, it easily turns into its opposite. For customary-religious systems, the priority of custom and the doctrine over the state is also correct.

The characteristics of the form of law should be, firstly, precise and should clearly formulate the rights and obligations of possible participants of possible legal relations. Secondly, they must have a generally binding and protected possibility of state coercion for those who will evade its prescriptions. Thirdly, they should be well known to the addressees of the legal norm; therefore, there should be a special procedure for publishing regulatory acts and putting them into effect. (2)

Tsarist lawyers offered fairly well-developed concepts discussed in the article. Sources of law should be clearly distinguished from "sources of jurisprudence" or sources of one's knowledge about the law. In Kazakhstan, a legal act is binding not because it is placed in the Code of Laws but because it is issued by the legislature. Therefore, the Code of Laws is in no case the source of law but only the source of one's knowledge about law, i.e. the source of jurisprudence. (3)

3 Results and Discussion

The preciseness of the external expression seems to be fundamental. It seems that the form of law certainly has a stable outer shell and often has a linguistic form. The enshrinement of the forms of law on sustainable materials (such as rock, paper and other storage media) contributes to the stability of the language form. For regulatory legal acts, this feature is traditionally called formal certainty. Its content comes down to the requirements of the language, i.e. of the style of regulations. Unwritten legal norms achieve the preciseness of external expression in other ways. Their preciseness is sufficient if legal persons understand the rules and consistently respect them. Of course, the unwritten rules elude but do not disappear, they reproduce themselves.

Another important characteristic of the form of law is the certainty of its content, that is, the form of law should contain provisions uniformly understood by legal persons, i.e. the addressees of the norms. The relevance of the issue of legal technique is obvious and is not in doubt. If we simplify the relevant definitions and emphasize the edges that are important for the present research, then we can say that the legal technique is a set of methods and rules for achieving the certainty of the content of legal regulations. The methods and rules themselves concern language means of presentation, choice of act type and its structure. In this variant, the certainty of the content of only one form of law is achieved, that of a regulatory legal act. This is its simplicity, as it is created as a result of a targeted and effective procedure. This cannot be said about almost all other forms of law. However, it does not mean that they lack certainty of content. This characteristic will look different for different forms. It presents the greatest complexity for legal customs. The certainty of the content of this form of law consists in the presence of a uniform understanding of the legal requirement in society. (4)

Another important feature of the form of law is the duration of existence. From the point of view of certainty of the manifestation of this feature, the leading place belongs to legal customs. Their form is crystallized for a long time and acquires a certain conservatism. It can even be assumed that the stability of law in the universal sense exists thanks to customs that give the necessary stability to social relations. Doctrinal forms of law are also valid for a long time.

With regard to regulatory legal acts, this feature is most vulnerable, since this form is characterized by variability.

Publicity is very important as a characteristic of the form of law. Due to this characteristic, a legal person gets the opportunity for conscious behavior within the legal norms. The manifestations of this characteristic are different for different forms of law. The familiarity with a custom has no procedural forms. Legal custom is recognized as a form of law because every member of society inevitably faces its norms in its social practice; it "is everywhere" and is completely naturally perceived by members of society.

For some forms of law, general awareness is a qualifying attribute, i.e. their recognition depends crucially on the availability of such an attribute. Therefore, the degree of awareness and prevalence affects the usual forms, i.e. local customs, trade customs, and business customs should be known to participants in business relationships. Doctrines influence social relations because of their popularity, prevalence, and recognition.

The general awareness about a regulatory legal act means the creation of the possibility of acquaintance with it. This is usually done via publication. However, there were other examples on the historical path of this modern mechanism such as announcement and disclosure. Legal states pay great attention to the openness of regulations and allow only some explainable exceptions.

The obligation of the form of law means the need to conform to one's behavior with legal regulations. The manifestation of

obligation depends on the type of legal norm. For example, it may be an obligation to commit an action or to refrain from it. The state plays a great role in the implementation of this feature, regardless of the type of form of law. The state guarantees the implementation of legal norms through the establishment of sanctions, legal liability and other power tools.

The obligation of other forms of law is supported by measures of public influence, authority, and confidence in their correctness. The listed methods vary as a function of the forms of law. For example, custom is supported by public condemnation, exclusion from any environment, and a refusal of trust. Doctrinal forms of law are bound by their authority. What has been said, however, does not exclude state guarantees of various forms of law.

A characteristic of universality is directly related to the above. This characteristic plays an extremely important role in the concept of law. Law, when being expressed in appropriate forms, acquires social value and can be equal to freedom. Law is a measure of the behavior of different individuals. It should erase the boundaries between people that are not important for given relationships. If a prescription is addressed to a narrow circle of persons, then it cannot be law. Non-personification is a permanent property of law, it is it that is taken as the basis for understanding the property of the normativity of law.

Normativity is a general characteristic of the form of law. The presence or absence of this particular feature resolves the issue of recognizing a phenomenon as a form of law. Normativity is manifested in the fact that acts:

- 1) are designed for an indefinite type of public relations (registration as an entrepreneur, the procedure for paying taxes, receiving benefits, etc.), that is, they contain the rules of conduct typical of the majority of persons;
- 2) are valid for an indefinite number of times. The implementation of the rules contained in them in a specific legal relationship does not terminate their validity. They extend their effect to any persons who act or may enter into legal relations on their basis. (5)

It seems that the property of normativity is the absence of a specific addressee (a person with individual signs that identify him/her). Moreover, this identification enables the selection of a given entity among entities of the same type. For example, for a person his/her individualization is determined by the surname, given name, date of birth and place of residence. For a legal entity, it is be the name, legal form and location. For the state authority and other public entities, it is the name. Therefore, the act loses its normative, if you can specify the exact person to whom it is addressed. However, this does not apply to territorial boundaries. It is also impossible to characterize the norm quantitatively according to the circle of persons. The standard is present in the act addressed to judges, prosecutors, all citizens of the Republic of Kazakhstan.

Reasonableness and justice can be a sign of the form of law. As for the issue of rationality of legal custom (sometimes interpreted so widely that some other requirements are imposed on it) and the formulas for the non-contradiction of customary law to state policy (in a number of countries, natural justice and morality or good conscience), they, like with the issue of the rationality of legal custom in England, are matters of law and not of fact.

In the Romano-Germanic legal system, it is customary to proceed from the presumption of rationality and fairness of a regulatory legal act. This is a consequence of the absolute merits and undeniable legitimacy of the state and, accordingly, lawmaking. This presumption adversely affects the regulatory properties of state forms in comparison with others. Indeed, self-admiration and self-sufficiency of regulatory legal acts in comparison with other forms that must constantly prove their viability, contribute to reducing the effectiveness of the former. A normative act claims to be self-sufficient due to the fact that it is recognized as mandatory by virtue of its connection with the

state and coercion. This form of law tries to declare itself correct, reasonable, fair, and dedicated to unanimous recognition. The disobedience to the legal act is an offense - this formula makes the regulatory act virtually invulnerable to criticism.

The form of law is a properly objectified legal institution consistent with the rational and fair ideas in a given society, non-personalized, long-term and uniformly embodied in the behavior of legal entities, guaranteed to be enforced by the power of authority and (or) government coercion, recognized by legal entities as a regulator of public relations. The source of law can be both relationships and methods of their regulation. The right absorbs the properties of its sources, acquires special features. It does not merge with them but it should not be torn off from them. These are the roots of law, the life-giving force of law, its effectiveness, public recognition, and the condition of its effectiveness. The source of law is always available, if law enshrines new relationships. In this understanding of the term "source," it can be replaced by the word "basis" of law.

Forms of modern law can be obtained as a result of multi-stage classifications with several bases.

Therefore, it seems permissible to use the force generating legal prescriptions as a basis:

- 1) state will (regulatory legal acts, precedents);
- 2) public experience (customs);
- 3) coordination of the wills of several parties to the relationship (contract, autonomous law);
- 4) authority of various origins (religion, doctrinal forms).

Depending on the force that protects the relevant regulations, such forms are identified:

- 1) those protected by the state (regulatory act);
- 2) those protected by the parties (contract, autonomy);
- 3) those protected by the authority of the creating force (doctrinal sources, customs).

Regulatory agreements constitute an agreement of two or more parties, as a result of which legal norms are established, modified or canceled. They are undoubtedly a form of law. The main characteristic of a normative contract as a form of law constitutes the voluntary will of the parties. Unlike a normative act, which is an act of unilateral will, the contract involves an element of voluntariness in accepting the obligation to follow established legal norms.

The role of treaties in the regulation of international relations is important. An international treaty is a clearly expressed agreement between two or more states regarding the establishment, amendment or termination of their rights and obligations. For example, the Treaty on the Non-Proliferation of Nuclear Weapons or the Treaty on the Commonwealth of Independent States are regulatory treaties.

International treaties are classified for various reasons and are divided into bilateral and multilateral ones, political, economic treaties, as well as treaties on special issues. The role of international treaties and generally accepted principles of international law to resolve civil disputes is quite large. The above said about the types of forms of law leads to the following conclusions. The system of forms of law is diverse; the elements of this system depend on the chosen basis of classification. The study of the essence of various forms will be more effective and deep in the case of referring to their place in the classifications for various reasons. The classification for each of the grounds opens up new issues in the study of the phenomenon. Therefore, for non-traditional doctrinal forms of law, the essential property is authority, which is communicated to the form of law by the force that created them. The multiplicity of creators, the persuasiveness of the content, and the duration of functioning give the doctrinal forms the strength of their regulatory properties. The participation of several parties who have intentionally concluded certain regulatory agreements determine the particularities of contractual and local forms. The central

place in the system of forms of domestic law is occupied by acts of unilateral will. The state proclaims that it acts in the interests of the whole society and expresses the will of the whole nation. However, this ideological thesis is not supported by lawmaking practice. The stability of the forms of law of state origin is given in the relevant acts by the established rules of social practice.

There is an interaction between the types of law forms. They transform into each other, which gives stability and unity to the system of forms. Prescriptions may change their place in the system of legal forms if there is no essential contradiction between the content of forms of different types.

In the scientific literature, the following forms of external expression of custom are distinguished: persuasion and practice. At the same time, customary law is denied by the possibility of acquiring a written form as a result of appeal to it by state authorities: sanctioned by long practice. (6)

A proof of customary law can be carried out directly by specifying individual cases of application, and indirectly by asserting the existence of customary law. For a direct evidence, the ordinary conditions of the evidentiary power of various means of evidence are sufficient (the ability to observe and the authenticity of the witness, the authenticity of the act, and so on). The direct evidence is the judgment of the witness or author of the deed of right.

The signs of custom as a form of law are the following:

- the actual implementation for a long time of a certain rule of conduct;
- certainty of the rule of conduct, its formality, giving the opportunity to consistently perceive and reproduce it;
- non-contradiction with regulatory legal acts;
- action in relation to regulatory legal acts is subsidiary, by direct permission (indication);
- rationality of custom, its compliance with the public perception of the decent, sensible, etc.;
- recognition of the rule of conduct as a form of law on the part of the state, implemented in the manner adopted for a given country.

On the one hand, the practice of the implementation of the content custom certainty contributes to its realization in relations. On the other hand, the law enforcement activity of state bodies that give an assessment of the behavior of subjects of law on the basis of custom, testifies to the acceptance of custom by the state and reveals its content.

Therefore, legal custom is inherent in features that reflect its affiliation to the forms of law. These include certainty of content, stability in the regulation of public relations. There are signs of custom, most clearly reflecting the originality of this socio-legal phenomenon. This is its local character and morality of the content. To characterize custom, the activity side is crucial. Practice acts as a permanent reflection of the custom. First, it is public practice, the corresponding popular belief (in the past) that is the source of law. Secondly, practice is a form of objecting customary law. It is a constant, continuous, long-term exercise that is a form of custom. Thirdly, the practice serves as a criterion of custom because the discontinuation of the use of ordinary norms is the termination of the norms themselves.

Judicial precedent is one of the oldest forms of law. Only custom can compete with him. In the scientific literature on the sequence of occurrence of forms of law, various judgments are expressed. While sharing the position on the early occurrence of a precedent, we note the following. Social practice is organically linked to conflicts that are in different directions with the interests of the participants in a particular legal relationship. It is these circumstances that explain the demand for casual regulation. The repetition of a successful solution of an incident, having become a law-enforcement habit, over time acquires certain properties of the form of law. This approach allows us to put a precedent in the first place, even before the legal custom.

Legal norms were generally created for specific cases, i.e. by precedent, which is then fixed by custom. In the full sense of the word, such an incident did not constitute a form of law in the modern sense; it still had a long evolutionary path to the modern doctrine of case law. (7)

In the theory of law, as in the sectoral sciences, the scientific interest in the precedent persists for centuries, experiencing peaks and falls. In XIX and the beginning of the XX century, precedent has developed an extensive scientific theory.

The development of the doctrine of case law in Tsarist jurisprudence was carried out in the context of forms of law, either in the historical aspect or in connection with the observations of the Anglo-Saxon legal system. This tradition has been preserved and continued by modern researchers. Outside of this traditional approach, original ideas of the psychological and historical schools are developed. (8)

Modern researchers turn to the study of judicial precedent in those legal systems that openly recognize the domination of this form of law. (9) International law specialists are also engaged in the development of precedent as a form of law. (9) The concept of judicial precedent in modern conditions has been significantly expanded due to the availability of versatile translated literature, primarily works created in case law.

The nature of the court is such that it is not possible to limit it to ready-made legislative formulas. It stands between the ready law and the subjects, it is in front of it that the pictures of the flaws in the legal regulations are opened. All this, combined with the need to make a decision on the merits dooms the judge to creativity. The thesis that no state, and, accordingly, no legislation, cannot act without the idea of judicial discretion, allows taking into account the peculiarity of life circumstances in the framework of the legal norm.

Special achievements in the development of case law belong to the comparativists. Comparative legal studies allow us to predict and evaluate the prospects of the experience of states. To assess the precedent in Kazakhstan's legal matter, it is necessary to refer to its features in the systems where it exists. In addition, in the Republic of Kazakhstan, it is in effect; it was created by the Constitutional Law on the International Financial Center "Astana."

The following definition is traditional: "A precedent is a court decision of a court (other state body) in a particular case, which is obligatory when similar cases are resolved later by the same court or by courts equal or subordinate to it.

René David notes the following provision that reveals the rule of precedent:

- 1) Decisions made by the House of Lords constitute mandatory precedents for all courts;
- 2) Decisions taken by the High Court are binding on lower courts and, not strictly binding, are very important and are usually used as the guidance by the various branches of the High Court and the Crown Court. (10)

The term "precedent" has the following meanings:

- 1) a case that took place earlier and serves as an example or justification for subsequent cases of this kind;
- 2) judicial precedent - a decision rendered by a court in a particular case, the justification of which is considered to be the rule binding on other courts when solving similar cases. (11)

A broad approach may not be completely limitless within the practice of all government bodies. The proponents of this approach use the name "judicial (administrative) precedent" described as some result of the activities of non-legislative authorities. The bodies creating precedents do not issue normative legal acts, but individual acts, and the mechanism of their real impact is equal to the normative one. In this case, one should keep in mind the peculiarity that in the domestic doctrine

it is not customary to speak of lawmaking in the full sense of the word when presenting a precedent. Administrative precedents are sometimes referred to as the usages of state bodies and institutions. This kind of confession is not traditional due to precedents. It seems that this phenomenon in its characteristics is liable to customary legal forms. The use of organs is most often practical, not written. If these customs are documented, it will have the form of a local act, in which the rules will be formulated not in casual but in abstract wording. Therefore, the practice of others, with the exception of judicial bodies, also does not give us an understanding of the precedent as a form of law. A narrower but still quite broad approach seems to be that only the activities of the courts set precedents. In a narrower sense, not every court decision is sometimes called a judicial precedent but only that which through the publication has become generally known and obligatory for the courts. (12) Case law is a system of legal norms developed by courts in the process of administering justice and binding to apply along with statutory law established by the legislature. Case law is the outcome of justice activities. (13)

In summary, we note that the precedent has two main manifestations. The first is through the types of bodies allowed to create precedents. In this variant, a narrow approach assumes only judicial bodies (or any state bodies, judicial and administrative ones). The second manifestation is depending on the significance of the result. In the broad case, a precedent is any decision of the authorized body. In the narrow sense these are only those of them that can be used in the future as a basis for issuing law enforcement acts.

There is a functional approach to the definition of a precedent, according to which it often represents the essence and significance of a judicial precedent being made dependent on its official recognition. If this condition is met, the judicial precedent becomes "a decision in a particular case, which is obligatory for the courts of the same or lower instance in solving similar cases. (14)

The following definition of case law is not indisputable. It is a legal system, in which judicial precedent is recognized as the main source of law. Case law is the right of precedent, that is, law created by way of precedent and nothing more. Another thing is that case law does not arise as a simple set of actual precedents. It is a hierarchically organized system of mandatory norms, structured for abstract law enforcement purposes. Case law is not an incident, but a model of legal thinking. Judicial precedent as a form of law is a law-enforcement act, which in the future, when similar circumstances arise, is used as the basis for the legal qualification of a case. A precedent is a part of a law enforcement act containing an abstractly formulated rule (position), which in the event of similar life circumstances will be used as a mandatory basis for the legal qualification of the relevant cases.

French jurists stated the great importance in the judicial decision of the motivation part: "From the study of the decision and the motivation it is possible to derive the legal norm, which was applied during this particular process, by inductive reasoning. Therefore, the court decisions provide what the British lawyers call the "decisive basis." This decisive basis often serves as a model for subsequent processes in identical or similar cases. When using this method, lawyers deduce full-fledged norms of law from the content of court decisions. (15)

It should be noted that the basic principle of the legal doctrine of common law countries lies precisely in the fact that a judge does not create law. Justice is living in society, and the judge only formulates the established rules. This doctrine is characterized by a claim to supranational law, which is the embodiment of justice. Therefore, the case law model is adequately perceived by supporters of the natural-legal concept, with the essential proviso that for them justice is nevertheless the supreme legal value. In accordance with this priority, natural-law doctrine allows for deviation from previous precedents if the court finds them wrong, absurd, or unfair. Judges do not create a new law; they simply correct the error of previous courts in the presentation of

legal norms. In this case, it is assumed that the court decision was not a law, i.e. law and positive law do not match. (16)

As for legal positivism, its normative origin inevitably comes into conflict with the essence of case law. However, in the confrontation there is a positive result. The merit of legal positivism is seen in the fact that it developed the ideas of limiting judicial creativity. Judicial discretion within the framework of the law is a model of a positivist understanding of precedent. This design is not stable since its origins does not support each other. The gaps in the legislation, which serve as a pretext for judicial creativity, exclude the steady implementation of laws. The case law in the context of the Romano-Germanic legal system deserves a high positive assessment precisely in connection with its sociological roots. The legislator, in formulating abstract norms, often invents them, and, explaining his/her legislative provisions, tries to substantiate them with demand for wide social strata. However, this evidence is not very obvious and can easily be insinuated.

The lack of positivist law is easily overcome by the very nature of case law. For example, in American sociological jurisprudence, the court is considered as a body that establishes a balance between conflicting interests.

Among the signs of precedent as a form of law, publication is of a particular importance. (17) In general, the problem of objectification and bringing to the attention of participants of legal relations, the content of a legal prescription is equally important for all forms of law without exception.

4 Conclusion

There are no grounds for the absolutization of the publication and, accordingly, of the written form. Indeed, the publication is a way of communicating, not a way of creating a written law. Only the result in the form of a decision can be recorded on paper, whereas the case law itself exists in the form of justice, rationality and other ideas that are of universal ideal character.

Modern civilization is in constant development. The ideas of state building are changing, in accordance with which attempts are being made to improve the state and law. The multidimensionality of the world of law and a modest place of normative acts in this system should set the state into tolerance. It must abandon positivist ambitions. Neither time nor facts give any reason to support the aesthetic ideas. Another pattern is that the development of legislation does not entail the cessation of other forms of law that have arisen outside state institutions. The methodological basis of the modern theory of law is the understanding of the relationship between form and content as philosophical categories and the resulting relationship between form and content as legal concepts. The requirements of compliance with the form and content are necessary for jurisprudence. The division of the source of law in the material and formal sense is the most important provision of the theory of the form of law. The emergence of new statehood, which affected the foundations of the legal system, entered the stage of codification.

The universal source of law is social practice and, first of all, its kind as legal practice. For legal practice, in order to perform the function of the source of law properly, it must be structured into certain forms of its expression.

Literature:

1. Ibrayeva AS, Ibrayev NS. *Teoriya gosudarstva i prava* [The Theory of State and Law]. Almaty; 2013.
2. Sydykov UY, Ospanov KI. *Osnovy prava* [Fundamentals of Law]. Almaty: KazNTU; 2014.
3. Sapargaliyev GS. *Osnovy gosudarstva i prava* [Basics of state and law]. Almaty; 2006.
4. Lazarev VV. *Osnovy prava* [Basics of Law]. Moscow: Yurist; 2016.

5. Atzhanov TZ, Rodnov AM. *Teoriya gosudarstva i prava (skhemy i kommentarii)* [The Theory of State and Law (diagrams and comments)]. Kostanay-Chelyabinsk; 2017.
6. Dulatbekov NO et al. *Osnovy gosudarstva i prava sovremennogo Kazakhstana* [Fundamentals of state and law of modern Kazakhstan]. Astana; 2016.
7. Abdrasulov YB, Zimanov SZ (ed.). *Tolkovaniye zakona i norm Konstitutsii: teoriya, opyt, protsedura* [Interpretation of the law and norms of the Constitution: theory, experience, procedure]. Almaty; 2012.
8. Chto takoye grazhdanstvo? Kommentarii k zakonu Respubliki Kazakhstan "O grazhdanstve" [What is citizenship? Comments to the Law of the Republic of Kazakhstan "On Citizenship"]. Almaty; 2014.
9. Sapargaliyev GS. *Konstitutsionnoye pravo Respubliki Kazakhstan* [Constitutional law of the Republic of Kazakhstan]. Almaty: Jeti jarǵı; 2012.
10. Alekseyev SS. *Tayna i sila prava. Nauka prava: novyye podkhody i idei. Pravo v zhizni i sudbe lyudey* [The mystery and the power of law: new approaches and ideas. Law in the life and fate of people]. 2nd edition. Moscow; 2016.
11. Alekseyev SS. *Chastnoye pravo* [Private Law]. Moscow; 2014.
12. Baytin MI, Petrov DY. *Metod pravovogo regulirovaniya v sisteme prava: ponyatiye i struktura* [The method of legal regulation in the system of law: the concept and structure]. Zhurnal rossiyskogo prava. 2016; 2.
13. Baytin MI, Petrov DY. *Sistema prava: k prodolzheniyu diskussii* [Law system: to continue the discussion]. Gosudarstvo i pravo. 2013; 1.
14. Baranov VM, Polenina SV. *Sistema prava i sistematzatsiya zakonodatelstva v pravovoy sisteme Rossii* [The system of law and systematization of legislation in the legal system of Russia]. N. Novgorod; 2012.
15. Bobylev AI. *Sovremennoye tolkovaniye sistemy prava i sistemy zakonodatelstva* [Modern interpretation of the legal system and the legislative system]. Gosudarstvo i pravo. 1998; 2.
16. Vedyakhin VM, Revina SM. *Tipy i metody pravovogo regulirovaniya rynochnykh otnosheniy* [Types and methods of legal regulation of market relations]. Pravovedeniye. 2012; 2.
17. Vitruk NV. *Sistema rossiyskogo prava (sovremennyye podkhody)* [The system of Russian law (modern approaches)]. Rossiyskoye pravosudiye. 2016; 2.

Primary Paper Section: A

Secondary Paper Section: AG, AD

F MEDICAL SCIENCES

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| FA | CARDIOVASCULAR DISEASES INCLUDING CARDIO-SURGERY |
| FB | ENDOCRINOLOGY, DIABETOLOGY, METABOLISM, NUTRITION |
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SEVERE BACTERIAL PNEUMOCOCCAL MENINGITIS IN A 5-MONTH-OLD. CAUSED BY REPLACEMENT SEROTYPE 24ABF

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Abstract: Bacterial meningitis (BM) is a severe invasive infection, often leading to death and disability of children and adults around the world. The 7, 10 and 13-valent conjugated pneumococcal vaccines (PCV7, PCV10, and PCV13) Streptococcus pneumoniae (*S. pneumoniae*) have proven effective in the prevention of invasive pneumococcal infections. However, cases of severe diseases are recorded due to serotypes not included in vaccines. This report presents a clinical case of a meningoenkephalitis with complications caused by the pneumococcal serogroup of 24ABF not overlapping with modern conjugate vaccines in the 5 months old patient. This case underscores the importance of serotyping of meningitis causative agents for an adequate assessment as a clinical prognosis, and the effectiveness of immunization in general.

Keywords: meningitis, infant, *S. pneumoniae*, vaccine, hydrocephalus.

1 Introduction

At the present stage, bacterial meningitis (BM) is an urgent problem of clinical pediatrics. One of the reasons for the development of such serious diseases is Streptococcus pneumoniae (*S. pneumoniae*). (1, 2) According to the World Health Organization (WHO), it is estimated that 1.6 million people die each year from invasive pneumococcal disease (IPD), including 0.7-1 million children under the age of 5 years. (2) The incidence of pneumococcal infection among children in the Asia-Pacific region from 1999-2010 is 100-200 cases per 100,000 children under the age of two. (3) The incidence of IPD in developed countries ranges from 8 to 34 cases per 100,000 people, with the highest rates in children under 2 years of age and in older people. (1)

The role of pneumococcus as an etiologic factor in the onset of purulent meningitis was first established by Netter in 1909 when cases of the disease were described in a number of patients with severe forms of pneumonia. Later, it was proved that pneumococcal meningitis is more often secondary, complicating not only pneumonia but also purulent otitis, mastoiditis, sinusitis, and acute bacterial carditis. (4, 5, 6) In the observations of A.L. Dekelman (5), pneumonia preceded meningitis or appeared almost simultaneously with it in 26.5% of cases. However, in other reports, an insignificant percentage of pneumonia in pneumococcal meningitis is indicated. (7) Often, it is impossible to establish the primary localization of the infection nidus and in a relatively large number of cases, pneumococcal meningitis occurs as a primary disease. (8, 9) Pneumococcal meningitis is one of the most severe forms of purulent meningitis, characterized by a rapid current and high lethality (about 100% in the past). As for its frequency among purulent meningitis, it ranks second after meningococcal one, accounting for up to one-third of their total number.

Pneumococcal meningitis is more common in infancy (39%) and less often in early childhood (15%), more often in the spring and autumn. Often, meningitis is preceded by otitis, sinusitis, and pneumonia. Predisposing factor in adults are fractures of the base of the skull reported in the anamnesis in 17% of patients. Acute and chronic inflammatory diseases of the upper respiratory tract in such patients, even at later times after trauma, can lead to the development of meningitis (the inflammatory process passes to the meninges through their fistula or through their hernial protrusion per contactum). In 40% of children and 60% of adults, the primary focus cannot be established even pathoanatomically. Such primary forms of pneumococcal meningitis occur particularly rapidly and heavily. Almost in 40% of patients dead from pneumococcal meningitis, acute swelling and edema of the brain were reported. (10)

The carrier status is of great importance in the epidemiology of pneumococcal infections. A survey of healthy children, conducted by J. Klein (11), revealed a high percentage of the carriage, especially in children under 5 years old. Protection against infection is determined by the condition of the patient's organism. Susceptibility to pneumococcal infection sharply increases after splenectomy and at immunosuppressive conditions. Pneumococcal meningitis is more common as a sporadic disease but distinct outbreaks are also observed. (12) Pneumococcal meningitis in most patients occurs as meningoencephalitis. Focal neurological symptoms in the form of paralysis and paresis of extremities, static and locomotor ataxia, various hyperkinesias were reported in almost 40% of cases; 56% of the patients have cranial nerve lesions (III, VI, VII, IX, X pairs). The inflammatory process is more often localized in the upper parts of the brainstem with the involvement of the III pair of cranial nerves. In a number of cases, the disease occurs with ependymitis syndrome. (13)

Despite the rather large selection of antibiotics effective in acute bacterial meningitis, only complex therapy can be successful, including pathogenetic, syndromic and symptomatic treatment, and, if indicated, surgical methods of treatment. (14)

"Asymptomaticness" of the initial period is far from a rare occurrence and is observed almost in the fourth part of cases of purulent meningitis. These issues are complicated by the fact that very many acute diseases, especially in infancy, are often accompanied by symptoms of irritation of the meninges and encephalitic reactions. In addition to clinical diagnosis, the role of differential diagnosis of bacterial meningitis of different etiology increases. While earlier these issues were of limited interest, now they are among the priorities, as the polyetiologic nature of purulent meningitis is precisely revealed and specific therapy demands concrete knowledge of peculiarities of the pathogen. Of course, differential diagnosis of individual forms of the disease is very difficult due to the absence of large differences in the characteristics of these forms. Nevertheless, attempts to provide indicative etiological diagnosis are justified by the fact that penicillin as the most frequently used remedy is ineffective in a number of forms of purulent meningitis, which, as already mentioned, cover almost a third of all cases. We should add that the bacteriological diagnosis requires a certain amount of time and often fails. Observations show that in more than 20-30% of cases, the pathogen of purulent meningitis is not detected. As a rule, this occurs in patients who were prescribed various antibacterial drugs before admission to the hospital. (15)

Unfortunately, the true incidence of pneumococcal pneumonia is difficult to establish, due to diagnostic difficulties. Often, extremely contradictory epidemiological data are provided around the world. An analysis of the incidence in the province of Quebec (Canada) over a 10-year period showed that this nosology caused more than 25,000 hospitalizations, with intensive therapy required for 2% of patients with the viral nature of the disease and 13% for bacterial etiology. (16) Lobar pneumonias were 32.2% among hospitalized patients. In

addition, 7 children had a purulent-septic complication (empyema of the pleura), 40.7% of whom were on treatment for a long time in the EDs. Despite the successes achieved, pneumococcal infection remains a serious problem throughout the world, not only because of its high prevalence but also because of the rather high risk of developing lethal outcomes in generalized forms of the disease. According to various authors, among the approximately 20 million pneumococcal pneumonia cases recorded annually in the world, about 1.05 million cases have a fatal outcome. Mortality from pneumococcal meningitis is about 75,000 people per year. (17)

Pneumococci are representatives of the resident microflora of the nasopharynx and the human oral cavity. (18, 19) Healthy people can be carriers of one or more types of pneumococci, with a frequency of 5 to 70%. (20) A high frequency of carriage is noted among children attending organized children's groups. The carriage of pneumococci in such children in France in 1997 was 55%, with 56% of strains sensitive to penicillin. However, with dynamic observation, strains with low sensitivity to penicillin became more frequent (37.8% in 2002 and 17% in 2006), with the majority of them being vaccine subtypes. (21) According to Russian authors, the average frequency of pneumococcal colonization in the Asian part of Russia is 53.8% (range from 38.5% to 68%), and in the European part of Russia, it is 45.8% (range from 25.0% to 72, 2%). (19) On the one hand, transient nasopharyngeal colonization is the normal outcome of contact with pneumococcal infection and is not a disease, but on the other hand carriers of pneumococci are a reservoir of infection and further promote the spread of a microorganism possessing pronounced virulent properties. Another problem associated with pneumococcal infection is the increase in the resistance of circulating serotypes to the recommended antibacterial drugs (β -lactams, macrolides) and the emergence of multiresistant strains. (22, 23)

In Kazakhstan there is no etiological interpretation of BM, therefore there is no official statistical data on incidences of IPD. Presently more than 90 capsules of serotypes have been identified, each of which differs in its chemical structure, pathogenicity, tropism to the human body and immunogenicity. (1) Consisting of pneumococcal conjugate vaccination 13 (PCV13) the strains most commonly responsible for IPD are included. Currently, there is a relative increase in the number of cases of IPD caused by non-vaccine serotypes. (1, 24) As a result of mass immunization of PCV, a relative replacement of serotypes colonizing the nasopharynx of children and adults is also noted. (25, 26) In this article, we present the clinical case of meningoencephalitis caused by *S. pneumoniae*, serogroup 24ABF, which was not previously identified as the cause of IPD, in a 5 month-old baby.

2 Materials and Methods

Case Report

A five-month-old baby girl was admitted to our hospital on the third day of illness with fever, vomiting, a monotonous crying, and poor sucking of her mother's breast milk. Antibiotics were not received until admission to the hospital. Pneumococcal vaccine (PCV13) was not given. The baby was a premature twin and was born with a weight of 1250 kg. The first child of the twins was healthy. The child suffers from "Perinatal lesions of the central nervous system and angiopathy of the retina". On the 4th month of her life, ultrasonography of the brain (USB) showed changes in periventricular zones, dilation of the interhemispheric fissure and subarachnoid cavity. The father suffered from nasopharyngitis before the girl's illness. Older children, unvaccinated from *S. pneumoniae*, attend pre-school and school. The father had a positive bacteriological swab test from a nasopharynx on *S. pneumoniae*. Her vital signs at admission are the arterial pressure of 96/70 mmHg, body

temperature 39.80C, heart rate of 200 beats/min. The level of consciousness is slight stunning (14 points on the Glasgow scale), the child is sluggish, drowsy and does not respond to external irritants. Physical examination showed hyperemia of the oropharynx, the rigidity of the occipital muscles, positive signs of Brudzinski and Kernig signs and left-sided ptosis. At palpation, there was a bulging, pulsation and tension of a frontal fontanel. A tonic-clonic convulsive syndrome has been developed in the child. The remaining physical conclusions of the examination were without special features. The results of laboratory tests were as follows: in the blood test HB 57g/l (120-140g/l), platelets 148.5% (180-320%), erythrocytes (RBC) 3.37×10^9 (3.5-4.18 x 10⁹/l), white blood cells (WBC) 2.5/10⁹ (5.5-12.5/10⁹L), erythrocyte sedimentation rate (ESR) 20 mm/h (0-10mm/h) and C-reactive protein (CRP) 348 mg/dl (0-10 mg/l). The corresponding blood glucose is 5.6 mmol/l (3.05-6.38 mmol/l). The factor deficiency of coagulation hemostasis: prothrombin time (PTI) 28 sec. (14-28 seconds); International Normalized Ratio (INR) 2.4 (0.9-1.1); kaolin cephalic clotting time 86 (26.4-37.5 sec). Cerebrospinal fluid (CSF): cloudy, leukocytes (WBC) 492/ μ L (0-5/ μ L) (polymorphonuclear cells 80%, lymphocytes 20%); protein 2.4 g/l (0.15-0.3 g/l), glucose 0.6 mg/dL (2.0-4.18); strongly positive Pandy's reaction. At Gram-stained preparations, the Gram-positive diplococci have been revealed. There was a negative bacteriological blood culture. USB showed echosigns of meningitis and encephalitis, and dilatation of subarachnoid cavity (Figure 1a). Acute bacterial meningoencephalitis was diagnosed and penicillin (500 thousand/kg/day iv) was administered empirically, in combination with ceftriaxone (100 mg/kg/day, iv), dexamethasone (0.8 mg/kg/day iv), and a standard treatment protocol according to the indications. In a bacteriological study of spinal fluid, *S.pneumoniae* was identified, sensitive to penicillin, ceftriaxone, ciprofloxacin, meropenem, levomycetin, and vancomycin. The minimum inhibitory concentration (MIC) level of penicillin, ceftriaxone, and ciprofloxacin is 0.06g/ml. MIC of the level of the remaining antibiotics were not available. PCR typing of *S.pneumoniae* isolate was carried out and identified as serogroup 24ABF. Serotyping was performed with the help of the capsule swelling reaction in the Scientific Research Institute of Fundamental Medicine named after the academician B. Atchabarov. On the third day of hospitalization, convulsions reappeared with a deterioration of the level of consciousness (10 points on the Glasgow scale). Due to the lack of positive dynamics of antibacterial therapy (ABT) for vital signs, penicillin was replaced with ciprofloxacin in combination with ceftriaxone and Immunoglobulinum humanum normale. On the 7th day of treatment, recovery of consciousness (from 10 to 13 points on the Glasgow scale) and motor activity and sucking reflex were increased. However, laboratory data confirmed the ineffectiveness of ABT: CSF: slightly turbid, WBC 491/ μ l (70% polymorphic cells), protein 3 g/l and glucose 2.6 mg/dL, weakly positive Pandy's reaction. Blood for procalcitonin 20.100 ng/ml (0-0.046ng/ml) gave a high risk of developing a septic process, so ceftriaxone was replaced with meropenem. Suddenly, on the 13th day of treatment, progressive depression of consciousness (9 points on the Glasgow scale), preservation of left-sided ptosis with development, descending strabismus, pronounced positive meningeal signs, repeated convulsions, spastic tetraparesis, increased bulging of the frontal fontanel, monotonous crying, and refusal to be breast-fed, episodes of febrile and persistent sub-febrile condition. Associated pneumonia was confirmed by radiography of the thoracic organs (bilateral bronchopneumonia, right focal-drainage). However, a bacteriological analysis of sputum and blood gave a negative result. In the blood test (from 7 to 13 days): HB 120 to 117 g/L leucocytes WBC from 13.9 to 24.9x10⁹L, ESR from 18 to 40 mm/h, CRP from 70 to 12 mg/dl. USB revealed negative dynamics: ventriculomegaly from mild to severe, the formation of ischemic changes of the brain, dilation of the inter-hemispheric fissure and subarachnoid cavity (Figure 1c).



Figure 1. Ultrasonography of the Brain

a – Echo signs of the meningitis and encephalitis. Dilation of the subarachnoid space and cisterna magna (4th day).

b – Mild ventriculomegaly. Dilation of interhemispheric fissure, subarachnoid space and cisterna magna (8th day).

c – Severe ventriculomegaly. Dilation of the third ventricle, interhemispheric fissure, subarachnoid space. Echoes of the ischemic changes of the brain (20th day).

The computer tomography (CT) scan of the head shows enlarged ventricles complicated with ventriculomegaly with the dominance of internal hydrocephalus (Figure 2a). Because of the persistent fever, surgical intervention was delayed. Considering the severity of the condition after the end of the course, ciprofloxacin was replaced by vancomycin. The child, in general, received 5 ABT courses. The conducting of antibacterial therapy courses and the combination of antibiotics of the patient are presented in Table 1.

After the course of meropenem and ciprofloxacin, the spinal fluid was sanated: CSF was colorless, WBC 16/ μ l (60% polymorphic cells), protein 1,3 g/l and glucose 2,7 mg/dl (day 15). The level of consciousness was clear, 15 points on the Glasgow scale, the fever has stopped but the CT of the head showed the development of hypoxic-ischemic changes of brain matter with progressive internal occlusive hydrocephalus (Figure 2b) and signs of pneumonia at the stage of imperfect resolution for 30 days.

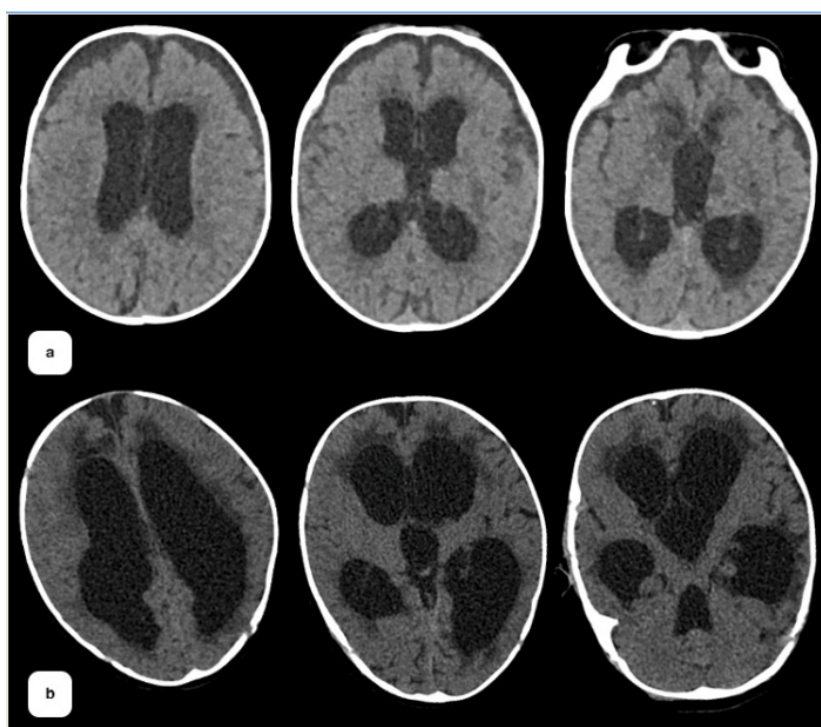


Figure 2. Computer Tomography of the Brain

a – CT scan with symptoms of mixed hydrocephalus with the dominance of internal hydrocephalus (13th day)

b – CT scan showing hypoxic-ischemic changes of brain matter with progressive internal occlusive hydrocephalus (30th day)

Table 1. Conducting of Antibacterial Therapy Course and Combination of Antibiotics of the Patient

| Antibiotic | days | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Penicillin | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ceftriaxone | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Ciprofloxacin | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Meropenem | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Vanco mycin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

After clinical stability, the patient was transferred to the Department of Neurosurgery for the surgical treatment with ventriculoperitoneal (VP) shunt. The VP shunt operation was performed with the continuation of antibiotics. The developmental assessment was performed after VP showed spastic tetraparesis, and revealed gross motor and cognitive delay. The child's condition at discharge from the hospital had improved: a hydrocephalus is compensated by a shunting system. A neurologist monitored the child and after three months, a CT showed a residual light hydrocephalus, a contraction of ventricular size with VP functioning shunts in place. During the subsequent outpatient visit at 3 and 6 months: her neurological examination showed a middle delay in the psychocerebral and motor development, improvement of the motor function and there were no deviations from the skeletal muscles. Her vision and hearing were apparently intact and the family was advised to visit the hospital for the observations every six months.

3 Results and Discussion

BM continues to be the main cause of morbidity and mortality among children under 5 years old worldwide. In developed countries, 15% of patients with BM have neurological complications, and mortality is 5%. (2, 29, 30) However, the incidence of this disease and related deaths in developing countries continues to grow. (27) According to foreign scientists such as Luksic, I, Mulic R and Falconer R (28), the worldwide incidence of BM and its etiology cannot be objectively assessed due to the lack of etiological interpretation and incomplete statistical data. According to official statistics, a similar situation exists in Kazakhstan; there are general data on the incidence of BM, without identification of the etiologic factor. It is known that with pneumococcal meningitis (PM), severe neurological complications are usually formed, even with timely treatment. (29) It is established that one in five patients with BM has neurologic complications such as sensorineural hearing loss, convulsions, movement disorder, hydrocephalus, other cognitive and behavioral consequences. (2, 30-32) Importantly, from 3 to 10% of children after PM have a complication in the form of hydrocephalus. (33) Hydrocephalus progresses rapidly and leads to serious complications and disability of the patient without surgery. (24) In our case, despite the ongoing massive ABT, the state of a child in the dynamics progressively worsened to the development of neurological complications (left-sided ptosis, descending strabismus, spastic tetraparesis, hydrocephalus, rough delay in psycho-speech and motor development), which subsequently required surgical treatment. Numerous studies have demonstrated the possibility of a high risk of neurological complications with PM in patients with the unfavorable premorbid background, prematurity, congenital malformations, and duration of disease prior to treatment in the hospital up to 48 hours. (29, 34)

Focal neurological findings at the time of hospitalization were the most reliable predictor of a continuous complication of BM. (32) According to the systematic review of R.C. De Jonge, A.M. Van Furth and M. Wassenaar (30), the prognostic indicators of acute severe central nervous system infection and the severity of the disease are coma/impaired consciousness, repeated infections, prolonged convulsions, prolonged fever for more than 7 days, no petechiae, shock, severe respiratory insufficiency, peripheral circulatory failure, male gender and an early age of up to 6 months. In addition, diagnostic tests during admission to the hospital such as low level of peripheral leucocytes (WBC) in blood and CSF, high protein and low glucose level in CSF demonstrate the risk of developing severe disease with a lethal outcome or with the development of severe neurological long-term complications. (30, 32) The patient had a disorder of consciousness up to the stupor, repeated convulsions, and a prolonged fever for more than 10 days, no petechiae, respiratory failure, an early age of up to 6 months, a low level of peripheral leucocytes WBC and CSF cells, high protein and low glucose level.

Because of the introduction of vaccination PCV7, PCV10, PCV13 on the recommendation of WHO in more than 120 countries, there is a decrease in various pneumococcal diseases. At the same time, recently there have appeared works where the authors report the replacement of serotypes 6A, 6C, 15B, 22F, 19A, 23A and 35B with serotypes not included in PCV13 (non-PCV13). (31) Since 2010 in Kazakhstan, the PCV13 for children of the first years of life was introduced. However, in the observed family, no child was vaccinated against pneumococcal infection. According to the meta-analysis of K. Duan, J. Guo and P. Lei (35), premature babies have a great tolerance for PCV7, PCV10 or PCV13. Despite the difference in the content of antigen and carrier protein in PCV, the vaccination of PCV7, PCV10 or PCV13 can elicit an optimal immune response after vaccination of preterm infants, even in infants with very low birth weight. (35, 36) In our case, the baby was prematurely born, which initially determined an increased risk of developing IPD. Although the identified 24ABF serotype is non-vaccine, a timely vaccination from 2nd month of life could serve as a risk reduction factor. The decrease in resistance to penicillin of the *S. pneumoniae* strain was connected with the changes in the serotype occurring after the introduction of the vaccine PCV13. (2, 37) In Japan, in the study of the antibacterial resistance of frequent *S. pneumoniae*, genic alterations of microbes were established, and it is the result of the use of cephalosporin and macrolides in medical practice. (37) During the retrospective examination of patients with a diagnosis of acute respiratory infection complicated by community-acquired pneumonia in the Municipal Pediatric Hospital for Infectious Diseases in Astana, it was found that until 2009, every third patient received 2 courses, and every fourth patient had 3 courses of ABT in our region. (38)

According to the data of numerous authors, it has been proven that the use of ciprofloxacin in pediatric practice is contraindicated in connection with the negative effect on the musculoskeletal and cartilaginous tissue. (39, 40) In our case, in spite of a good spectrum of *S. pneumoniae* sensitivity to antibiotics, the child received massive ABT, which included 5 courses of antibiotics. Despite the risks of side effects from ciprofloxacin, the child's condition was stabilized and sanated in the case of infection with serogroup 24ABF *S. pneumoniae*. At the subsequent follow-up in 3-6 months, there were no adverse musculoskeletal phenomena (arthritis, arthralgia, tendinopathy or myalgia).

4 Conclusion

In conclusion, non-vaccine strains can cause invasive and non-invasive forms of pneumococcal infection. The peculiarity of our clinical case of pneumococcal meningoenzephalitis responds to *S. pneumoniae* of serogroup 24ABF, not included in PCV13. During the literature search, we did not find data on serogroup 24 ABF. In our opinion, this is the first report on the serogroup 24ABF caused by pneumococcal disease in the English-language scientific literature. This case gives rise to further study.

More than a third of patients who underwent meningoenzephalitis subsequently suffer from late complications and residual phenomena such as deafness, ataxia, optic nerve atrophy, epilepsy and other convulsive disorders. (41) Even with a favorable outcome (recovery) in patients, there remains a significant risk of long-term residual events, such as psychoneurological disorders. (42) In addition, according to studies conducted in the UK, the intelligence quotient of patients who underwent pneumococcal meningitis is significantly reduced. (43) The revealed clinical features of the acute period of the disease and the unfavorable outcome of pneumococcal meningoenzephalitis in children, which hamper the normal development of the child in the future, severely and urgently raise the question of the need for a specific primary vaccine prophylaxis for pneumococcal infection in children from a very early age. (44)

Purulent meningitis is the final phase of the development of the infectious process, the causative agent of which is primarily localized in the nasopharyngeal mucosa. In this respect, pneumococcus and Afanasyev-Pfeiffer's *Haemophilus influenzae* differ little, as the systemic inflammatory reaction to these two infections is often associated with processes that happen on meninges. The timing of the manifestation of organ lesions, including purulent meningitis, may coincide with the first wave of fever; these syndromes may appear on the second wave and in rare cases as "meningitis of the incubation period." (45)

It should be noted that the actual pathogenesis is still topical in the problem of bacterial purulent meningitis. An ineffective immune response at an early stage of the disease often leads to the development of severe, life-threatening conditions. The main pathogenetic link of severe infections is a systemic inflammatory reaction in which humoral factors of innate immunity (cytokines and acute phase proteins) play an important role. (46)

The problem of neuroinfectious pathology in children in recent years is the growing antibiotic resistance and insufficient effectiveness of widely used antibacterial drugs. In this connection, the clarification of the causes of this phenomenon and the improvement of the ways of introducing antibacterial drugs is a priority. It has now been established that the frequency of resistance of pneumococcus to penicillin depends on the minimum inhibitory concentration (MIC) of the drug in the blood: high resistance is at a MIC of fewer than 0.06 µg / ml and extremely low resistance is at a MIC of more than 4 µg / ml. (47) It should be taken into account when choosing the tactics of antibacterial therapy, for example, in pneumococcal meningitis, when the appointment of high doses of the drug is still effective. Nevertheless, antibiotics by the nature of the action, undoubtedly, occupy a central position in complex therapy and can serve as a certain criterion for evaluating the effectiveness of treatment. On the other hand, it becomes of importance to

implement the hormonal therapy with the use of massive doses of penicillin, which leads to the rapid disintegration of microorganisms and thereby to the release of a large number of toxic products that can worsen the existing disorders both in the adrenal glands and in other organs, to the appearance of point hemorrhages due to increased permeability of capillaries. (15)

In a systematic review by S. Curtis, K. Stobart, B. Vandermeer et al. (48), an assessment of the diagnostic significance of certain symptoms of meningitis in children was made. It was revealed that each symptom of meningitis, separately, is not sufficiently informative. Such an important symptom for the diagnosis of meningitis in infants as the bulging of a large fontanel has, according to the authors, the sensitivity of 36% and the specificity of 90%. The highest sensitivity (Se) but low specificity (Sp) is characteristic for such symptoms as cerebral scream (Se 84%, Sp 53%), hyperesthesia (Se 82%, Sp 34%), fever (Se 76%, Sp 34%). The absence of fever does not exclude the presence of meningitis in children. In this regard, in an infant with fever, drowsiness, hyperesthesia, even in the absence of meningeal symptoms, meningitis should always be excluded and a diagnostic lumbar puncture should be performed. (49) The exclusion of meningitis in infants is also required in all cases of febrile fever without a visible focus of infection. (50)

Important for the diagnosis and evaluation of the effectiveness of therapy is the study of the dynamics of the composition of cerebrospinal fluid. A definite relationship between the phase of the inflammatory process and the level of protein fluctuation in the cerebrospinal fluid is revealed. High protein content is more common in more severe cases, and its increase in the course of the disease often precedes the new exacerbation of the process. Very rare are patients whose protein curve is rising steadily or remains almost unchanged for 2-3 weeks or more. The last two types of the curve are found in children with severe and extremely severe forms of the disease, with a tendency to the prolonged current of the disease, the development of severe complications and a high percentage of deaths.

A promising solution to the problem of bacterial purulent meningitis should be the clarification of the pathogenesis of intracranial complications; the clarification of the role of genetic factors in the formation of the severity of the disease; the improvement of diagnostic and therapeutic tactics, as well as the widespread introduction of hemophilic, pneumococcal and meningococcal vaccination into practice. (51)

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6 Ethics Approval and Patient Consent

The Ethics Committee of Astana Medical University in Kazakhstan approved this prospective study (Protocol Number 2 of March 2016). The consent signed by parents is available from the child's parents.

Literature:

- Kateljine, V. V., Silvy, D., Alessandro, C., & Livio, G. (2014). Cost-Effectiveness of the New Pneumococcal Vaccines: A Systematic Review of European Studies. *Pharmaco Economics*, 32, 29-45.
- Isaacman, D. J., McIntosh, E. D., & Reinert, R. R. (2010). The burden of invasive pneumococcal disease and serotype distribution among *Streptococcus pneumoniae* isolates in young children in Europe: impact of the 7-valent pneumococcal

- conjugate vaccine and considerations for future conjugate vaccines. *Int J Infect Dis*, 14, 197-209.
3. Lin TY, Shah NK, Brooks D, Garcia CS. Summary of invasive pneumococcal disease burden among children in the Asia-Pacific region. *Vaccine*. 2010; 28:7589-7605.
 4. Ginzburg ED. *Collection of works of the Baku Children's Hospital*. Baku; 1939.
 5. Dekelman AL. *Pneumococcal meningitis*. Moscow; 1947.
 6. Fanconi G, Walgreen A. *Children's Diseases Guide*. Moscow: MedGiz; 1960.
 7. Pokrovsky VI. Purulent meningitis (clinic picture, diagnosis, treatment). Doctoral dissertation. Moscow: Moscow Medical Dental Institute; 1965.
 8. Meythaler F, Dehler K, Reichel HW. On the diagnosis, therapy and prognosis of pneumococcal meningitis. *Medizinische Klinik*. 1963; 58:2083-6.
 9. Voiculescu M. *Infectious Diseases*. Bucharest: Meridiane; 1963.
 10. Badalyan LO, Bondarenko ES, Gordeyeva LM, Kovalev VV, Kostrov N, Nesvetov AM, Pokrovsky VI, Fomina-Kosolapova VP, Freydkov VI. Meningitis. In B. V. Petrovsky (Ed.), *Encyclopedia of Medicine*. Moscow: Soviet Encyclopedia; 1989.
 11. Klein J. Epidemiology of pneumococcal diseases in infants and children. *Rev Infect Dis*. 1981; 3:246-53.
 12. Futer DS, Prokhorovich YV, Shapiro TB et al. Tuberculous meningitis in children. Moscow: Medgiz; 1963.
 13. Zinchenko AP. *Acute neuroinfections in children. A guide for doctors*. Leningrad: Meditsina; 1986.
 14. Sorokina MN, Zinchenko AP, Bezukh SM et al. *Rehabilitation of children who underwent severe forms of meningitis and encephalitis (in a hospital and polyclinic). Methodical recommendations*. Leningrad; 1990.
 15. Reznik B. Y, Spalek SF. *Meningitis in children*. Moscow: Meditsina; 1990.
 16. De Wals P, Robin E, Fortin E, Thibeault R, Ouakki M, Douville-Fradet M. Pneumonia after implementation of the pneumococcal conjugate vaccine program in the province of Quebec, Canada. *Pediatr Infect Dis J*. 2008; 27:963-8.
 17. Martynova AV, Turkutyukov VB. Epidemiological analysis of incidence of invasive and non-invasive forms of pneumococcal infections in different population groups. *Bulletin of the Russian Academy of Medical Sciences*. 2007; 9:12-16.
 18. Skvortsova VV, Dmitrachenko TI, Zenkova SK, Zhiltsov IV. Clinical and microbiological aspects of the use of beta-lactam antibiotics for pneumococcal infection. *Bulletin of Vitebsk State Medical University*. 2005; 4(1):98-102.
 19. Kozlov VS. Ways to optimize the monitoring, prevention and pharmacotherapy of pneumococcal infections. Doctoral dissertation. Smolensk.
 20. Kostinov MP, Tarasova AA. *Vaccine prophylaxis of pneumococcal infection and influenza in autoimmune diseases*. Moscow; 2009.
 21. Hendrickson DJ, Blumberg DA, Joad JP, Jhawar S, McDonald RJ. Five-fold increase in pediatric parapneumonic empyema since introduction of pneumococcal conjugate vaccine. *Pediatr Infect Dis J*. 2008; 27(11):1030-2.
 22. Klugman KP, McGee L. Resurgence of the multiresistant pneumococcus in the United States: a commentary. *Pediatr Infect Dis J*. 2007; 26(6):473-9.
 23. Park SY, Moore MR, Bruden DL et al. Impact of conjugate vaccine on transmission of antimicrobial-resistant *Streptococcus pneumoniae* among Alaskan children. *Pediatr Infect Dis J*. 2008; 27(4):335-340.
 24. Pelkonen T, Roine I, Monteiro L, Correia M, et al. Risk factors for death and severe neurological sequelae in childhood bacterial meningitis in sub-Saharan Africa. *Clin Infect Dis*. 2009; 48:1107-1110.
 25. Richter SS, Heilmann KP, Dohrn CL, Riahi F et al. Pneumococcal serotypes before and after the introduction of conjugate vaccines, United States, 1999-2011. *Emerg Infect Dis*. 2013; 19:1074-83.
 26. Weinberger DM, Malle R, Lipsitch M. Serotype replacement in disease after pneumococcal vaccination. *Lancet*. 2011; 378:1962-73.
 27. Molyneux E, Riordan FA, Walsh A. Acute bacterial meningitis in children presenting to the Royal Liverpool Children's Hospital, Liverpool, UK and the Queen Elizabeth Central Hospital in Blantyre, Malawi: a world of difference. *Ann Trop Paediatr*. 2006; 26:29-37.
 28. Luksic I, Mulic R, Falconer R et al. Estimating global and regional morbidity from acute bacterial meningitis in children: assessment of the evidence. *Croat Med J*. 2013; 54:510-518.
 29. He Z, Li X, Li J. Clinical analysis of 430 cases of infantile purulent meningitis. SpringerPlus. 2016; 5:1994.
 30. De Jonge RC, Van Furth AM, Wassenaar M, Gemke RJ, Terwee CB. Predicting sequelae and death after bacterial meningitis in childhood: a systematic review of prognostic studies. *BMC Infect Dis*. 2010; 10:232.
 31. Richter SS, Diekema DJ, Heilmann KP, Dohrn CL et al. Changes in pneumococcal serotypes and antimicrobial resistance after introduction of the 13-valent conjugate vaccine in the United States. *Antimicrob Agents Chemother*. 2014; 58:6484-6489.
 32. Türel Ö, Yıldırım C, Yılmaz Y et al. Clinical Characteristics and Prognostic Factors in Childhood Bacterial Meningitis: A Multicenter Study. *Balkan Med J*. 2013; 30:80-84.
 33. Saez-Llorens XM, McCracken GH. Acute bacterial meningitis beyond the neonatal period. In S. Long (Ed.), *Principles and Practice of Pediatric Infectious Diseases*. Revised Reprint (pp. 284-291). Philadelphia, PA: Churchill Livingstone; 2008.
 34. Kim KS. Acute bacterial meningitis in infants and children. *Lancet Infect Dis*. 2010; 10:32-42.
 35. Duan K, Guo J, Lei P. Safety and Immunogenicity of Pneumococcal Conjugate Vaccine in Preterm Infants: A Meta-Analysis. *Indian J Pediatr*. 2017; 84:101-110.
 36. Szynczewska E, Chlebna-Sokol D. Immunogenicity of a heptavalent conjugate vaccine against *Streptococcus Pneumoniae* in premature babies with low birth weight. *Pediatr Neonatol*. 2014; 55:101-107.
 37. Ubukata K, Chiba N, Hanada S et al. Serotype Changes and Drug Resistance in Invasive Pneumococcal Diseases in Adults after Vaccinations in Children, Japan, 2010-2013. *Emerging Infectious Diseases*. 2015; 21:1956-1965.
 38. Turdalina B, Shaidarov M, Bayesheva D et al. Antibacterial Therapy Rationalization by Antibacterial Card in Children with Community-acquired Pneumonia. *Res J Pharm Biol Chem Sci*. 2016; 7:3160-3168.
 39. Adefurin A, Sammons H, Jacqz-Aigrain E, Choonara I. Ciprofloxacin safety in paediatrics: a systematic review. *Arch Dis Child*. 2011; 96:874-880.
 40. Choi SH, Kim EY, Kim YJ. Systemic use of fluoroquinolone in children. *Korean J Pediatr*. 2013; 56:196-201.
 41. Koroleva IS, Chistyakova GG, Beloshitsky GV. Epidemiological features of meningitis resulted from *s. pneumoniae*. *Epidemiology and infectious diseases* 2005; 3:28-30.
 42. Fedoseyenko MV, Galitskaya MG, Namazova LS. Era of conjugate vaccines: international experience of successful application. *Pediatric Pharmacology*. 2008; 5(6).
 43. Baranov AA, Namazova LS, Tatochenko VK. The forecast and prospects of modern vaccinoprofilaxis. *Pediatric Pharmacology*. 2008; 1:6-7.
 44. Martynova GP, Gulman LA, Bogvilene YA, Kutishcheva IA, Vaytsel EV. Clinical picture, current, and outcome of purulent meningoencephalitis of pneumococcal etiology in children. Krasnoyarsk: Krasnoyarsk State Medical University named after Voyno-Yasenetsky; 2010.
 45. Shishov AS. Purulent meningitis as a syndrome, a clinical marker of the generalization of bacterial infections and an indicator of their severity. *Zhurn nevrologii i psichiatrii*. 2009; 5:92-96.
 46. Alekseyeva LA, Mazayeva YM, Skripchenko NV et al. Cytokines in cerebrospinal fluid in the case of meningitis in children. *Zhurn Infektol*. 2014; 1:54-60.
 47. Savinova TA, Sidorenko SV, Budanov SV, Grudinina SA. Dynamics of beta-lactam antibiotic resistance distribution among *Streptococcus pneumoniae*, clinical value of the results. *Antibiotiki i khimioterapiya*. 2010; 1-2:12-20.

48. Curtis S, Stobart K, Vandermeer B et al. Clinical Features Suggestive of Meningitis in Children: A Systematic Review of Prospective Data. *Pediatrics*. 2010; 126(5):952–60.
49. Norris C, Danis P, Gardner T, Cecilia MR. Aseptic meningitis in the newborn and young infant. *Am Fam Physician*. 1999; 59(10):2761-70.
50. Brook I. Unexplained fever in young children: How to manage severe bacterial infection. *BMJ*. 2003; 327:1094-7.
51. Skripchenko NV, Ivanova MV, Vilnitz AA, Skripchenko YY. Neuroinfections in children: trends and perspectives. *Rossiyskiy Vestnik Perinatologii i Pediatrii*. 2016; 4:9-22.

Primary Paper Section: F

Secondary Paper Section: FC, FG, FN

G AGRICULTURE

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| GA | AGRICULTURAL ECONOMICS |
| GB | AGRICULTURAL MACHINES AND CONSTRUCTION |
| GC | PLANT GROWING, CROP ROTATION |
| GD | FERTILIZATION, IRRIGATION, SOIL TREATMENT |
| GE | PLANT CULTIVATION |
| GF | DISEASES, PESTS, WEEDS AND PLANT PROTECTION |
| GG | ZOOTECHNICS |
| GH | NUTRITION OF FARM ANIMALS |
| GI | FARM ANIMAL BREEDING AND FARM ANIMAL PEDIGREE |
| GJ | BDISEDAISES AND ANIMAL VERMIN, VETERINARY MEDICINE |
| GK | FORESTRY |
| GL | FISHERY |
| GM | FOOD INDUSTRY |

THE POSSIBILITY OF SORGHUM CULTURE ZONING IN THE ALMATY REGION OF THE REPUBLIC OF KAZAKHSTAN

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Abstract: The article is devoted to the topical problem of agriculture in the Almaty region of the Republic of Kazakhstan, where sorghum was not widely spread due to the lack of high-yielding varieties and hybrids in production. The article sums up some results of studying the best forms of sugar sorghum samples from the world gene pool and their involvement in the selection process for creating varieties and hybrids of the intensive type using traditional breeding methods that determine vegetative and field methods of agronomic research. The biological features of the studied sorghum varieties have been identified; parental forms with useful traits for using in crossing have been selected. The varieties characterized by high productivity of biomass and sugar content have been distinguished. The full vegetative period of these varieties in the first generation has been determined. As the research problem, the authors have defined an attempt to assess the possibility of conducting breeding work on breeding the varieties and hybrids that meet the requirements of production. As the result of crossing the varieties of sugar sorghum among themselves and sterile lines, hybrids with economically valuable traits were obtained. Crossing the sterile line with sugar forms showed high seed setting.

Keywords: Sorghum saccharum, selection process, highly productive varieties, hybrid, heterotic forms.

1 Introduction

According to natural and climatic resources and economic factors, the Almaty region of the Republic of Kazakhstan has a great potential of cultivating this crop and development of sorghum production. This zone is characterized by unstable and insufficient moistening along with high heat supply and therefore more suitable for sorghum cultivation than other crops. More than 50% of the area of the Almaty region is in the zone where precipitations are less than 400 mm per year, and the sum of temperatures above 15°C is 2600-3000°C. According to many experts, in a zone where atmospheric precipitation does not exceed 400 mm, sorghum production is more efficient than corn production.

In Kazakhstan selection work on sorghum started in 1976 in the KazSRI (Kazakhstan Scientific Research Institute) of grassland agriculture and lasted until 1985, and then from 1987 to the present time in Kazakhstan Scientific-Production Centre NPC of Agriculture and Crop Production. The selection was started for all sorghum crops (sorghum grains, sugar, Sudan grass, sorghum-Sudan hybrids), and since 1998 sorghum for food-grains. Selection work on sorghum crops was conducted under the guidance of V.M. Makarov, who created varieties and hybrids of sorghum crops for the first time in Kazakhstan. (1)

A deterrent factor for the widespread introduction of sugar sorghum in the arid regions of the Almaty region is insufficient selection work on breeding varieties and hybrids that meet the requirements of production. (2) Many zoned varieties and hybrids of sugar sorghum are late-ripening, fall during ripening, and characterized by low sugar content in the sap of stems.

The next reason why sugar sorghum has not received a proper distribution was the lack of agricultural techniques of cultivation, considering varietal characteristics. At the present stage of agricultural production introduction of new varieties should be carried out with strict adherence to the inherent technology of cultivation, taking specific conditions into account. (3-4)

In this connection, we set the task of identifying high-sugar sorghum samples and involving them in the breeding process to create varieties and hybrids of intensive type, promoting the increase in the yield of sugars from a unit area of cultivation. Further development of the research works on the production of sorghum sugar in industrial scale is possible as a result of using the best forms from the world gene pool of sorghum on the basis of cytoplasmic male sterility of highly heterotic hybrids adapted to local conditions with a high content of sugars in the sap of stems using traditional breeding.

The purpose of this study is to create new high-yielding heterotic domestic forms and sorghum sugar lines (*Sorghum saccharum*) in the Almaty region adapted to local conditions (to drought and salinity of soil) using traditional breeding methods.

In this regard, it is necessary to identify high-sugar and high-yield sugar sorghum samples and involve them in the breeding process to create early-ripening varieties and hybrids of the intensive type characterized by high sugar content in the sap of stems and high yield of biomass.

2 Materials and Methods

The objects of the research were domestic and foreign varieties and promising lines of sugar sorghum (*Sorghum saccharum* (L.) Pers.). Modern physiological, biochemical, genetic and breeding methods, as well as agronomic approaches to plant research, were used in the work. The content of soluble sugars in some organs was determined by the refractometric method. Sampling the studied samples consisted of the forms that were distinguished by the signs of early-ripeness, tallness and high content of sugars in the sap of stems and high productivity of biomass. Experimental samples were sown on one-row plots (S-5m3). Agrotechnical works included pre-sowing cultivation, sowing with dropping and subsequent tillage harrowing, three-time weeding and single spraying of plants with herbicides. (5)

The crossing was performed according to generally accepted methods with modifications on the experimental field of the Main Botanical Garden of the NAS RK (National Academy of Science) and on the fields of Kazakhstan Scientific-Production Centre NPC of Agriculture and Crop Production. Morphometric parameters were determined by the results of the structural analysis. Growth biological parameters such as plant height, the length of the panicle, the number of nodes, the number of lateral shoots, and the dry biomass of some organs were studied by measuring and weighing. (6-7) The qualities of seeds sown, such as germination energy, the intensity of endosperm reserves consumption and germination capacity were determined. The obtained results of the studies were subjected to statistical analysis according to N.L. Udolskaya (8) and the computer program Excel 97. (9)

Sorghum is an exclusively drought-resistant crop, withstands heat, dry hot winds, and grows on salty soils. Many farmers of Kazakhstan in the last couple of years are interested in this culture, beneficial for the zones of risky farming, its peculiarities, consider the possibilities of its cultivation. (10-11)

High-yield forage and food crops of sorghum belong to the genus *Sorghum*, from its many species in Kazakhstan, mainly two are cultivated: *Sorghum vulgare* and grass sorghum - sudanense, cultivated as a forage plant.

By the nature of the use, sorghum is divided into three groups: *Sorghum bicolor*, sugar (high-yield) sorghum and *Sorghum technicum*. (12)

According to the panicles structure, the forms of sorghum are distinguished: branchy (broomcorn), compressed and lump. For cultivation on bread grains use a species with a lump form of panicle (Figure 1). For cultivation as sugar (or high-yield)

sorghum (green forage, hay, silage, for obtaining treacle and grain), varieties are used mainly with a branchy form of a panicle. (13) Sorghum technicum has no high-yield value,

mainly represented by varieties with a compressed form of panicle, which does not have the main axis. (14) From the latter make brooms, brushes.

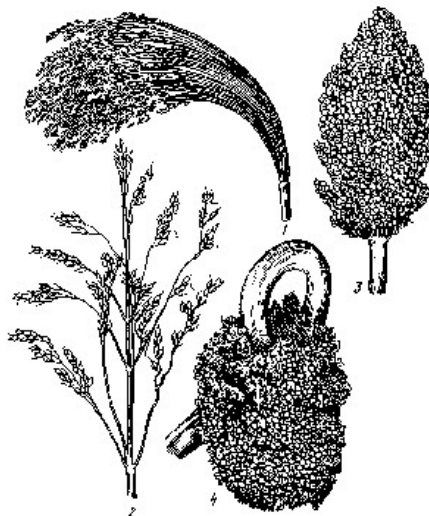


Figure 1. Sorghum Subspecies:

1 – branchy with a shortened main axis and long lateral branches (paniculate); 2 – branchy with the developed main axis; 3 – lump with an upright stem; 4 – lump with the crooked stem (drooping sorghum/Sorghum cernuum).

By all forms of sorghum in our country, currently, there are selection cultivars and hybrids.

2.1 Cultivar from Kokshetau

If you look through the Register of Agricultural Plants allowed for use in the RK, it can be seen that mainly varieties of drought-resistant crops are zoned in the south, west and east of Kazakhstan.

At Shokan Ualikhanov Kokshetau State University, for two years the work has been in progress to create a variety of grain sorghum for southern humus and chestnut soils of Northern Kazakhstan. The prospectivity of this direction is proved by the world trend towards the expansion of sown areas in the regions of semi-arid and dry-steppe arable farming. The yield of individual hybrids of the nursery is already over 30 centner/ha.

The creators are aiming to obtain a highly productive, plastic variety of Sorghum bicolor under conditions of artificial overcrowding, suitable for solid planting, so that it can be cultivated on the traditional technology of grain growing, without additional costs for the acquisition or re-equipment of technics. (15-16) Here they also started developing biomass production technologies for obtaining bioethanol from this plant.

2.2 Biological characteristics

Sorghum is cross-pollinated, heat-loving, spring crop, capable of forming high yields with total annual precipitation of 200-250 mm. Where there is little rainfall for corn, and without irrigation, it does not yield good harvests, sorghum can be used. Also, this culture is equivalent to corn as a precursor for spring grains.

In the process of evolution, sorghum developed a great deal of adaptability to the lack of moisture and its economical expenditure. It has been established that sorghum consumes 300 parts of water for the formation of a dry matter unit (for comparison: sugar sorghum - 340, maize - 338, wheat - 515, barley - 534, oats - 600, pea - 730, alfalfa - 830, sunflower - 895). (17)

A characteristic feature of sorghum is the slow initial growth of the aboveground part (30-40 days from the emergence of the shoots) and at the same time the intensive formation of the root system penetrating to a depth of 2-2.5 m. This is why sorghum

has strict requirements for the choice of the preceding crop, processing technique, crop tending, especially in the control of weeds. The best preceding crops are the cultures leaving after themselves pure from weeds fields, grain, pulse, and also arable crops. (18-19) It is not advisable to sow sorghum after millet, Sudan grass, and sunflower. With appropriate farming standards, sorghum for hay and grazing can be grown on the same field for 3-5 years. Since the culture produces a significant amount of sodium, chlorine, and magnesium with the yield and bears a concentration of soluble salts of 0.6-0.8% or 1.5 times more than corn, so it can be placed as the first culture by the reclamation of salty soils. (20)

At strong droughts in roots of a plant, the protective silicon layer is formed, protecting them from drying. The waxy bloom on stems and leaves of plants has the same value. If the soil retains a little moisture, the culture continues to grow, despite the heat, low air humidity, and dry hot winds. (21-22)

When the air temperature rises above 35°C, sorghum falls into anabiosis, that is, it stops its growth for 45-55 days, and as soon as the slightest moisture appears, it again begins to grow to 5 cm per day. (23) However, if the drought lasts too long, the culture may not be in time to “wake up” and form a full panicle.

2.3 Methods of cultivation

Agrotechnics of sorghum is similar to the agronomics of corn. The culture responds well to deep plowing, dung application, phosphorus fertilizers.

Sowing is carried out when the soil warms up to 12-15 °C. The sorghum is sown on grain with a wide-row (70-90 cm) or square-pocket planting method (70 × 70 or 90 × 90 cm) with 4-6 seeds in a nest.

It should be remembered that if we plant sorghum too early, the weeds will start to develop faster than the crop itself, and can suppress its growth. This fact is mentioned by Ukrainian experts as one of the reasons why sorghum in Russia was not widely spread: many farmers did not observe the sowing time, sowed it early, because of this, they received poor results and refused to cultivate in the future.

The norm of sowing with a wide-row method is from 10 to 15 kg per 1 hectare, the seeds are embedded to a depth of 3 to 7 cm.

For the green mass, the sorghum can be sown by a continuous row-crop method or double-row planting (45-60 × 15), the sowing rate 20-25 kg per 1 hectare. At the same time, mineral fertilizers are added at the rate of N60P60 (24). To obtain even sprouts, pre-sowing and post-sowing compacting should be applied.

Sorghum for grain is harvested at its full ripeness by a combine; sugar sorghum - at the end of the wax ripeness in the close cut, and Sorghum technicum - at the end of the milk state (first a panicle and then a mass). (25)

2.4 The secret of proper cleaning

Sorghum grain is very hygroscopic, and by moving of the stem (which is usually very juicy) with an ordinary cutter, the stem is connected to the grain in the hopper, its moistening takes place. It turns out that if the grain has a moisture content of about 12% on the field, after mowing it is unloaded with a moisture content of 18-20%. Which, of course, is bad for storage. Therefore, it is better to use a combing cutter when harvesting sorghum for grain. (26)

For green fodder and hay sorghum, it is advisable to mow down to the blooming phase. In this case, the green mass is eaten well by cattle. In addition, one can expect to receive an after-growth, since all sorghum crops grow well after the first mowing, and their green mass can be used in the late summer and autumn periods before the onset of frost. In this case, moving in the amount of two cuts is usually 10-20% more than one for a single moving.

The harvested vegetative mass at a later date can be used to lay high-quality haylage and silage. Due to the high content of sugars (14-20%), sorghum is easily silaged not only in pure form but also in a mixture with straw, chaff.

Grains of sugar sorghum are often used for the preparation of mixed fodders, and by way of concentrated feed for all farm animals. Scientists of the South-Kazakhstan region actively recommend that farmers use sorghum grain for fattening sheep.

Nutritiousness of sorghum grains is quite high. Specialists note that the use of sorghum grains in the supplement feeds is equivalent to barley grain, pigs give the same gain in weight and quality. However, the yield of sorghum is much higher than spring barley, so from 1 hectare of sorghum, it is possible to get twice as much pork as from 1 hectare of barley. (27)

According to the protein content, sorghum is not equal among other forage crops. Sorghum grains consist of 12-15% protein, about 70% starch, and 3.5-4.5% fat. In one centner of the grain, there are from 118 to 130 feed units. The energy content in the sorghum crop is 18.3 MJ/kg.

Sorghum effectively silages to one and a half months from the moment of the onset of the optimal phase (milk-wax) ripeness of grain. (28) This means that for farms limited in cleaning tools and transport equipment, this culture is a real find. Due to the good growth after grazing, the crop can be used to create annual pastures. The leaves and stems of the plants remain juicy until the full ripeness of the grain. In 100 kg of silage from sorghum contains 20-24 fodder units and 1.31-1.67 kg of digestible protein.

2.5 World consumption and market

According to FAO, in the world in 2012, 58.09 million tons of sorghum was harvested. The average yield was 1.53 tons per hectare.

In the United States and South American countries, sorghum is one of the main crops for the production of bioethanol, the cereal provides an alcohol yield of 25-30% more than that of corn and

wheat. Therefore, one of the main factors influencing the price of sorghum is the cost of oil. The world's largest producer and exporter of sorghum is the United States. China imports a large amount of sorghum from Australia for processing to alcohol.

From the CIS countries, the leading producer and exporter of sorghum is Ukraine. The production of culture takes fifth place here after wheat, barley, rice, and corn. Sugar cereal is a safety net for farmers in the event of an unfavorable seasonal outcome for the main crops. The geography of exports is the Middle East and Africa, where there is a long tradition of using culture, as well as Europe, where it is intensively recycled to ethanol.

2.6 Kazakhstan market

It is gratifying to report that in our country there is also the processing of sorghum into syrup. This is done by LLP "Zhetysu Kant" in Shardarinsky district of South Kazakhstan region on a universal sugar mini plant with a capacity of 50 tons per day. As raw materials, they use their own sorghum and also buy it. Finished products are for sale in Kazakhstan, for export to Central Asian republics.

Export of its own cereals can also be done through Kazakhstan's large grain traders who place their ads on the Internet. Last season, according to Irina Ivanova, a representative of the export company LLP "Unistone Company", the export of sorghum did not fully develop, as domestic farmers kept a high price with low quality, and European buyers have very high requirements in this regard.

4 Results and Discussion

3.1 Experimental part

Breeding experiments with some experimental sugar sorghum material were carried out in the foothill zone on light chestnut soils, the thickness of the humus horizon is 50 cm with a humus content of 2.7 to 3%, in the fields of the Main Botanical Garden (MBG) of National Academy of Science of the RK and Kazakhstan Scientific-Production Centre NPC of Agriculture and Crop Production in 2016.

The agro-climatic conditions on the average long-term observations were favorable for growth and development of sugar sorghum. Season 2015 was distinguished by a significant amount of atmospheric precipitation in May - 80.7 mm, average - 61.6 mm, and in general during the spring months their height was 201.1 mm, which is much higher than the average annual norm - 163.9 mm. The weather conditions were characterized with high temperatures and low precipitation during the period of 2016, which had a positive effect on the accumulation of sugars in the sap of plant stems and ripening of sugar sorghum samples. A small number of precipitations during flowering and ripening of samples in 2016 season affected the concentration of sugars in the sap of plant stems. In general, different weather conditions contributed to the comprehensive study of the collection material to highlight environmentally plastic samples. In 2016, 30 collection samples of sugar sorghum and 3 sterile sorghum lines were selected for the study. Sampling consisted of samples that were distinguished by the signs of early ripeness, tallness and high content of sugars in the sap of stems.

The material for the study consisted of varieties and lines of sorghum crops (grain, sugar, birch, sorghum-sudan grass from the world collection of sugar sorghum. Promising hybrid lines of sugar sorghum have been identified and selected for use in the breeding process.

Previously, in the laboratory conditions, the seed quality of the seeds of the varieties studied and the lines, such as germination and germination energy were determined (Table 1).

Table 1. Germination of the Seed of Varieties and Line of Sugar Sorghum, 2016

| Variety | Germination |
|----------------------------------|-------------|
| 1 | 2 |
| Shortgrowing-81 sterile line | 90 ± 0,8 |
| MSL-26 sterile line | 96 ± 0,5 |
| Sakhmoye- 32 | 100 ± 0,0 |
| Oranzhevoye 160 | 100 ± 0,0 |
| Uzbekistan 18 | 100 ± 0,0 |
| Kazakhstanskoye - 16 | 96 ± 0,5 |
| Larets | 100 ± 0,0 |
| Sugar drip | 100 ± 0,0 |
| Dela Varieta | 100 ± 0,0 |
| Sudan grass of Kazakhstanskaya 3 | 100 ± 0,0 |
| SPV 1411 | 100 ± 0,0 |
| Kazakhstan -20 | 100 ± 0,0 |

According to Table 1, all varieties and lines showed high seed germination (from 90 to 100%).

Studies of biological characteristics and conducted phenological observations of varieties and lines of sugar sorghum collection nursery in the period of 2016 found that hybrid varieties of Uzbekistan 18 and Kazakhstan-20 are superior to all other varieties and lines for all biological parameters. For instance, the dry weight of stem and leaves of one plant varieties of Uzbekistan 18 with the leading shoot was up to 365 g, with side shoots 272,5 g, dry weight of panicle of the leading shoot 165,0 and 127,5 g. with side shoots. The dry weight of stem and leaves of one plant varieties Kazakhstan -20 with the leading shoot is up to 670,0 g, with side shoots - 180,0 g, dry weight of panicle of the leading shoot -136,7 g and 58,3 g from side shoots.

Biological features of the investigated sorghum varieties were determined by the structural analysis (Table 2). According to the results of the analysis and such parameters as dry mass of the

above-ground part of plants, the height and sugar content in the stem, breeding varieties Uzbekistan 18 and Kazakhstan -20 can be noted, where full vegetation period of these varieties was 144 days, which can be attributed to a number of late-ripening varieties (Table 2, 3). Considering biomass accumulation, the height of plants, the variety of Uzbekistan-18 can be noted, which ripening period is 141 days and the average sugar content is 11%. Varieties of Sakhmoye - 32, Sugar drip, DelaVarieta, SPV 1411, Kazakhstan-16, Kazakhstan-20 and Uzbekistan 18 showed high rates of above-ground biomass and sugar content, the full ripening period is 120-135 days. Varieties of Orange 160, Borotal, Larets - these lines are grains, sugar content and the mass of the above-ground part and height of plants were low, but the panicle mass was high compared to sugar varieties. The hybrid variety of SST Kazakhstan-3 differed in plant height and bushiness, but the dry mass of the aboveground part is medium, the sugar content is low, the period of full ripening refers to the early-ripening hybrids - 95-110 days (Table 2).

Table 2. Structural Analysis of Biological Characteristics of Sorghum

| Variety | Shoot | Length of shoot, cm | Length of panicle, cm | Number of internode, pcs | Number of side shoots, pcs | The dry weight of panicle, gram | The dry weight of stems and leaves, gram | Soluble sugars, % |
|-----------------------|---------|---------------------|-----------------------|--------------------------|----------------------------|---------------------------------|--|-------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Shortgrowing-81 | Leading | 119,0 | 21,0 | 7 | 1 | 108,0 | 168,0 | 5,0 |
| | Side | 129,0 | 17,0 | 8 | | 31,0 | 68,0 | |
| MSL-26 | Leading | 78,7 | 20,7 | 6 | 3 | 55,0 | 61,0 | 4,0 |
| | Side | 97,5 | 18,6 | 7 | | 28,9 | 43,9 | |
| Sakhmoye - 32 | Leading | 126,7 | 24,7 | 7 | 4 | 91,0 | 168,0 | 7,5 |
| | Side | 155,2 | 19,3 | 7 | | 38,7 | 129,0 | |
| Uzbekistan 18 | Leading | 230,7 | 51,0 | 9 | 3 | 100,0 | 176,7 | 0,0 |
| | Side | 198,7 | 41,7 | 6 | | 37,2 | 183,3 | |
| Kazakhstanskaya-16 | Leading | 95,0 | 25,7 | 7 | 1 | 121,7 | 170,0 | ---- |
| | Side | 88,3 | 19,7 | 6 | | 40,0 | 51,7 | |
| Larets | Leading | 117,3 | 21,0 | 8 | 3 | 110,0 | 113,3 | 7,0 |
| | Side | 146,8 | 15,1 | 8 | | 70,5 | 106,7 | |
| Sugar drip | Leading | 218,0 | 28,0 | 9 | 3 | 65,0 | 215,0 | 14,0 |
| | Side | 204,0 | 22,5 | 9 | | 25,0 | 111,7 | |
| DelaVarieta | Leading | 93,3 | 22,3 | 7 | 2 | 115,0 | 116,7 | 8,0 |
| | Side | 127,3 | 17,3 | 7 | | 53,3 | 70,0 | |
| SPV 1411 | Leading | 200,0 | 23,0 | 10 | 3 | 95,0 | 291,7 | 16,0 |
| | Side | 159,8 | 19,0 | 8 | | 53,3 | 172,2 | |
| Kazakhstanskaya-3 SST | Leading | 229,3 | 42,0 | 9 | 4 | 76,7 | 151,7 | 16,0 |
| | Side | 246,4 | 33,1 | 9 | | 41,9 | 141,9 | |
| Kazakhstanskaya -20 | Leading | 210,3 | 20,3 | 8 | 3 | 93,3 | 333,3 | 15,0 |
| | Side | 204,3 | 17,6 | 9 | | 37,9 | 227,3 | |

The full vegetative period of the most early-ripening MSL - 26 line was only 99 days, while varieties of Short growing - 81

early, Uzbekistan 18, Sudan grass, Kazakhstan - 3 full vegetation period was 106-115 days; The varieties and lines that are full-

grown are the varieties and lines whose full vegetation period is 115-130 days: Kazakhstanskaya 16, Kazakhstanskaya 20, Oranzhevoye 160. All other varieties and lines are late-ripening: Sugar drip, Uzbekistan 18, Simon, SPV-1411, DelaVarieta.

3.2 Reciprocal crossing for obtaining F1

To attract forms of sorghum to the breeding process when creating high-yielding, early-ripening and resistant to lodging,

diseases, drought, and other environmental factors, we have selected zoned in Kazakhstanskaya varieties, such as Kazakhstanskaya 20 (sugar), SST (hybrid) Kazakhstanskaya 3, Oranzhevoye-160, Larets, Sakharnoye - 32, etc. The varieties are distinguished by the following agronomically valuable characteristics, such as yield, resistance to unfavorable environmental factors, sugar content and early-ripening. The main biological features of these varieties are given in Table 3.

Table 3. Biological Characteristics of Varieties on Agronomically Valuable Traits

| Varieties | Biometric indicators and properties | | | | | |
|--------------------|-------------------------------------|--------------|--------------------|-------------------------|-----------------|--------------------------|
| | Yield | Plant height | Lodging resistance | Persistence to diseases | Precocity | Amount of soluble sugars |
| Sakharnaya - 32 | High | 250-300 | Low | Low | (115-122 days) | 16,5 % |
| Orange 160 | Average | 200-250 | High | Low | (115-122 days) | 16 % |
| Larets | Average | 200-250 | High | Low | (115 -122 days) | 12 % |
| Kazakhstan -20 | Average | 200-250 | High | High | (115-122 days) | 20 % |
| Kazakhstan – 3 SST | High | 300-350 | High | High | (95-105 days) | 7 % |

To obtain the source material of sorghum, the breeding method of hybridization and artificial breeding by castration was used, removing male flowers on short stems. The flowers on a panicle were castrated on one or several branches, and then each of them was isolated, which allowed receiving the possibility of pollinating individual branches by different paternal forms and getting a few hybrid seeds on one panicle.

Castration and hybridization methods were performed in the flowering stage in the morning from 8 00 to 10 00. For this purpose, well-developed flowering branches of panicles were selected. After pollination, each branch was insulated with parchment paper and then numbered.

As source material, 4 varieties and 1 hybrid of SST were used (Sorghum Sudan grass of Kazakhstanskaya 3, Oranzhevoye-160,

Sakharnaya-32, Larets, Kazakhstanskaya-20), differing in length of vegetation period, an element of crop structure, soluble sugars and other agronomically-valued attributes and properties.

As the result of the reciprocal crossing in the combinations of the ♀SST Kazakhstanskaya 3x ♂Oranzhevoye 160, with the direct and reverse crossings, the seeds did not set. In the combinations of the ♀SST Kazakhstanskaya 3 x ♂Rostov with direct crossing, the number of set seeds was 141, which was 21%, and with the reverse crossing, the seeds did not set. In the combinations of the ♀STT Kazakhstanskaya 3 x ♂Larets of direct crossing - 39 seeds were set, i.e. 9,5%, and with the reverse crossing - 49 seeds, i.e. 4% (Table 4).

Table 4. Reciprocal Cross-breeding of Selected Varieties of Sorghum Sugar

| Parental forms | | Repetition | Number of castrated flowers | Seed setting (hybrid) F1 pcs | The result of setting, % |
|----------------|---------------|------------|-----------------------------|------------------------------|--------------------------|
| ♀ | ♂ | | | | |
| SST Kaz-3 | Kazakhstan-20 | 4 | 68±5 | 8±0,1 | 3 |
| SST Kaz-3 | Orange-160 | 6 | 68±5 | 0 | 0 |
| SST Kaz-3 | Sugar-32 | 10 | 68±5 | 141±10 | 21 |
| SST Kaz-3 | Larets | 6 | 68±5 | 39±2,8 | 9,5 |
| Orange-160 | SST Kaz-3 | 23 | 65±5 | 0 | 0 |
| Larets | SST Kaz-3 | 21 | 58±4 | 49±3,0 | 4 |
| Sugar-32 | SST Kaz-3 | 12 | 50±4 | 0 | 0 |
| Total | | 82 | 445 | 237±17 | |

As can be seen from Table 4, in 7 crossing combinations with the number of castrated branches in each combination from 4 to 23 and the total number of castrated flowers 445 pieces, the number of bound seeds was 237 pieces. In the combinations, ♀SST Kazakhstanskaya - 3 x ♂ Oranzhevoye -160, ♀ Oranzhevoye -160 x ♂ CCT Kazakhstanskaya - 3 and ♀ Sakharnaya - 32 x ♂ CCT Kazakhstanskaya - 3 the seeds did not set. Only in the reciprocal crossing combination of the variety of Larets with the hybrid of SST Kazakhstanskaya -3 the percent of setting in the direct and reverse case was from 4 to 9.5%.

Thus, the highest percentage of setting (21%) of hybrid grains was obtained in the combination of ♀STT Kazakhstanskaya-3 ♂ Sakharnaya-32 as the result of direct crossing (Table 4), and in the reverse order of crossing (♀ Sakharnaya - 32 x ♂SST Kazakhstanskaya - 3), the seeds did not set. As a result of reciprocal hybridization, 237 hybrid seeds were obtained, which were directed to study the properties and selection of promising plant forms in the first generations.

The conducted studies of the biological characteristics and phenological observations of the F1 hybrids obtained in 2016

and their parental forms have been conducted. As the source material, 4 varieties of sugar sorghum (Oranzhevoye-160, Sakharnaya-32, Larets, Kazakhstanskaya-20) and 1 hybrid of sorghum of the Sudan grass of the Kazakhstanskaya-3 (SST Kaz-3) were taken, differing in length of vegetative period, yield structure elements, the content of soluble sugars and other economically valuable characteristics and properties.

The effect of heterosis was calculated relative to the best parental form – the “true” heterosis (Ftrue). To determine the economic value, the characteristics of the heterosis hybrid were compared with the standard, Soriz variety. A reliable symptom of the excess hybrid combination on a certain basis of the standard was attributed to heterosis as “competitive” (Fcom). The degree of heterosis display was calculated by the formulas: (8)

$$F_{true} = ((F1 - Ct) : Ct) \times 100;$$

$$F_{com} = ((F1 - P_{best}) \div P_{best}) \times 100 \quad (1)$$

where: Ftrue - the degree of heterosis relative to the best parental form, %;

Fcom - the excess characteristic of the F1 hybrid over the standard variety, %;

F1 - the characteristic value of the hybrid combination;

P best - the characteristic value of the best parent form;

Ct - the characteristic value of the standard.

The experimental data were processed by mathematical modeling using statistical methods and programs. The study took the significance level of 5%.

It was found out that when crossing the ♀SST Kazakhstanskaya-3 × ♂ Sakhmaya - 32 and ♀Larets x ♂Kazakhstanskaya 20, and ♀ Larets x ♂SST Kazakhstanskaya-3, the resulting hybrids did not have a heterosis effect (Table 6).

Table 5. Biometric Parameters and Sugar Content of Stems of Hybrids F1 and Their Parent-forms, 2016

| Shoot | Plant height, cm | Length of panicle, cm | Number of internodes | Sugar content, % | Number of side shoots, Pcs | Raw weight of stems and leaves, gram | Raw weight of panicle, Gram |
|--|------------------|-----------------------|----------------------|------------------|----------------------------|--------------------------------------|-----------------------------|
| Hybrid 1 ♀SST Kaz-3x ♂Sakhmaya – 32 (135 days) | | | | | | | |
| Leading | 270,0±20,3 | 54,5±2,0 | 12 | 7,2±1,1 | 6 | 310,0±11,5 | 91,7±5,2 |
| Side | 273,4±10,1 | 50,9±4,2 | 10 | | | 1635,0±10 | 465,0±5,8 |
| Hybrid 4 ♀Larets x ♂Kazakhstan 20 (135 days) | | | | | | | |
| Leading | 204,3±25,1 | 21,3±2,9 | 10 | --- | 3 | 737,5±49,1 | 180,0±28,9 |
| Side | 215,0±9,8 | 19,8±2,0 | 11 | | | 1462,5±18 | 335,0±5,8 |
| Hybrid 6 ♀Larets x ♂SST Kaz-3 (135 days) | | | | | | | |
| Leading | 216,0±16,6 | 21,0±0,4 | 10 | --- | 3 | 606,7±18,6 | 200,0±0,0 |
| Side | 222,0±14,7 | 20,9±1,0 | 11 | | | 1390,0±75 | 370,0±0,0 |
| Parental forms | | | | | | | |
| SST Kaz-3 (115 days) | | | | | | | |
| Leading | 336±4,2 | 52 | 10 | 7 | 9 | 240±18 | 90±8 |
| Side | 358,2±0,2 | 46,4±0,5 | 10,1±0, | | | 1480±45 | 385±28 |
| Larets (120 days) | | | | | | | |
| Leading | 215±5,3 | 24 | 11 | 15 | 4 | 640±52 | 200±18 |
| Side | 204,7±4,3 | 17,9±0,1 | 11 | | | 1545±87 | 465±32 |
| Kazakhstan 20 (125 days) | | | | | | | |
| Leading | 246±16,2 | 24,7±1,4 | 14 | 20 | 2 | 567,5±2,9 | 120,0±5 |
| Side | 244±6,9 | 19,6±1,3 | 12 | | | 730,0±46 | 115,0±0, |
| Sakhmaya – 32 (125 days) | | | | | | | |
| Leading | 235,0±1,2 | 28,0±4 | 10 | 18 | 2 | 325,0±5,8 | 100,0±0,0 |
| Side | 196,0±11 | 18,2±2 | 10 | | | 492,5±25,9 | 75,0±0,0 |

In the height of the plants, the length of the panicle and tillering, the first hybrid plant showed a significant lag behind the parental forms. However, in raw biomass, the hybrid plant approached the parental form. The main morphological characteristics of the Hybrid 4 – Larets X Kaz-20 and Hybrid 6 - Larets X CCT Kaz-3 are similar to the parental form by the following characteristics: height of the plant, length of the panicle, tillering and raw biomass of the plants.

The data obtained showed that Hybrid 1, Hybrid 4 and Hybrid 6 were not heterotic. These hybrids are morphologically similar to

the maternal form. For example, the main features of hybrid 1 (SST Kaz-3 X Rostov) are similar to the maternal form (CST Kaz-3), Hybrid 1 in plant height (270/273 cm) was lower from maternal forms (336/196 cm), but higher from the father's forms (235/196). Only the length of the panicle is 2 cm more from the parent forms. All other signs are similar to the Kaz-3 STS maternal form. Exactly the same indicators were observed in the Hybrid 2 Larets X Kazakhstanskaya-20.

The heterosis phenomena were found in crossings of the ♀SST Kazakhstanskaya 3 × Larets (hybrid 2) and ♀ Larets x ♂ Oranzhevoye 160 (hybrid 5) (Table 6-7).

Table 6. Display of Heterosis in Hybrids by Morphological Features in Comparison With Parents With More Expressed Signs (All Figures Are Based on 1 Whole Plant 2016)

| Hybrids and their parental forms | Shoot | Height of stem | Tilling capacity | Number of above-ground internodes | Length leaves | Width of leaves | Length of panicle | Vegetation period |
|----------------------------------|---------|----------------|------------------|-----------------------------------|---------------|-----------------|-------------------|-------------------|
| | | cm | pcs | pcs | cm | cm | cm | |
| Hybrid 2 ♀SST Kaz-3x ♂Larets F1 | Leading | 437±3,5 | 8±5,5 | 16 | 100±5,3 | 6 | 30 | 135 |
| | Side | 341,3±13,7 | | 12,75±0,28 | | | 31,0±0,4 | |
| Hybrid 5 ♀Larets x ♂Orange-160F1 | Leading | 292±6,2 | 3±0,1 | 16 | 97±10 | 12 | 0 | 150 |
| | Side | 250±5,4 | | 15,1±0,01 | | | 0 | |

| | | | | | | | | |
|------------|---------|-----------|--------|-----------|--------|-----|-----------|-----|
| SST Kaz-3 | Leading | 336±4,2 | 9±1,5 | 10 | 82±7,2 | 7 | 52 | 105 |
| | Side | 358,2±0,2 | | 10,1±0,01 | | | 46,4±0,5 | |
| Larets | Leading | 215±5,3 | 4±0,2 | 11 | 65±5,6 | 8 | 24 | 115 |
| | Side | 204,7±4,3 | | 11±0,00 | | | 17,9±0,15 | |
| Orange-160 | Leading | 234±4,6 | 2±0,01 | 13 | 70±8,2 | 7,3 | 24 | 130 |
| | Side | 246,0±4,0 | | 12,0±0,00 | | | 20,0±0,5 | |

The data in Table 6 indicate that heterosis of hybrids 2 and 5 is displayed by several characteristics. For example, the hybrid 2 is superior to its parental forms in plant height, a number of aboveground internodes, the length, and width of the leaf. Signs on the tillering and the length of the panicle were between the

paternal and maternal forms, and also according to the indications of raw biomass, hybrid forms are twice as high as the content of soluble sugars from the average indication of parental forms.

Thus, according to the data in Tables 6-7, it can be concluded that hybrid 2 is a heterotic plant.

Table 7. Productivity of Heterotic Hybrid Plants F1 and Parental Forms

| Hybrids and their parental Forms | | Raw weight of stems and leaves, gram | Raw weight of panicle, gram | Raw biomass of above-ground parts of 1st plants, kg. | The content of soluble sugars, % |
|----------------------------------|---------|--------------------------------------|-----------------------------|--|----------------------------------|
| ♀SST Kaz-3x ♂Larets F1 | Leading | 765±12 | 65±5 | 3,390 | 13 |
| | Side | 2330±36 | 230±12 | | |
| ♀Larets x ♂Orange-160F1 | Leading | 2285±85 | 0 | 6,930 | 19 |
| | Side | 4645±52 | 0 | | |
| Parental forms | | | | | |
| SST Kaz-3 | Leading | 240±18 | 90±8 | 2,195 | 7 |
| | Side | 1480±45 | 385±28 | | |
| Larets | Leading | 640±52 | 200±18 | 2,850 | 15 |
| | Side | 1545±87 | 465±32 | | |
| Orange-160 | Leading | 470±25 | 110±6 | 1,510 | 16 |
| | Side | 825±63 | 105±4 | | |

Hybrid 5 - obtained from intraspecific crossings of sugar forms of sorghum (Larets x Orange-160) also has a heterotic property. According to Table 6, the height of the grown hybrid-5 was 292/246 cm, while the height of the maternal form is 215-204 cm, and the shape of the paternal form is 234/246 cm. The number of side shoots of plants does not differ from the parent forms. However, in terms of the number of aboveground internodes (16 pcs), it considerably exceeds the parent forms (13-11 pcs).

The heterosis symptoms in hybrid 5 are better displayed in the length, leaf width and in the content of soluble sugars in stems. While the length of the leaf of the parent forms was 65-70 cm, and the hybrid 97 cm, the width of the leaf of the parent forms was 7-7.3 cm, in the hybrid this index reached up to 12 cm. The content of soluble sugars of the hybrid is 19%, whereas in the parental forms this rate was 15-16%. According to the data in Table-7, the hybrid-5 for raw biomass far exceeds the parent forms. This means that hybrid-5 is heterotic, where the raw biomass of the above-ground parts of the hybrid exceeds 2-3 times that of the parent forms. If the maternal form of Larets raw biomass of aboveground parts is 2,850 kg, for the paternal form of Orange-160 it equals to 1,510 kg, then in the hybrid this figure was 6,930 kg. Analyzing the obtained data of tables 6 and 7, it should be noted that the grown hybrid plants are heterotic.

4 Conclusion

During this research, we selected and chose parental forms of varieties and hybrids of sugar sorghum for using in reciprocal crossing with the use of thermo-castrating technology. Hybrids were obtained on the basis of fertile and sterile crossing using cytoplasmic male sterility. As a result, crossing on a fertile basis from 3 to 21%, set seeds were obtained. A high seed setting in crossing using cytoplasmic male sterility was shown. From 32 to 2200 hybrid seeds per panicle were obtained. The biological properties of promising hybrids in the first generation were

investigated. Using the method of the group and individual selection we selected prospective heterosis hybrids with economically useful traits. The obtained hybrid material can be used in breeding work to create new varieties in the future, high-yielding and environmentally resistant varieties and sugar sorghum for use in the food industry, feed production and bioenergy.

Thus, the hybrids resulting from inter- and intraspecific crossing in 2016 showed different characteristics. One of the six hybrids (hybrid 3) was not viable, in three hybrids (1.4 and 6) heterotic phenomena were not detected, and hybrids 2 and 5 showed heterosis in economically valuable traits.

The phenological observations have shown that in hybrids the vegetation period is 135 days, which makes it possible to classify them as mid-late forms of sorghum.

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Literature:

1. Zhuk EA. World collection as a source material for creating new varieties of paniculate sorghum. In: Breeding, technology of cultivation and use of sorghum and other forage crops. Saratov; 2006.
2. Omarova AS, Makarov VM, Almakanov BA. The results of breeding work on corn and sorghum in Kazakhstan. In: KazNIIZ – 70 years: Collection of scientific papers of NPCZR. Almaty: Nurly Alem; 2004: 172-178.
3. Poyda VB. Features of yield formation and accumulation of sugar in sorghum under the influence of agrotechnical methods on ordinary chernozem soil in the North Caucasus [dissertation]. [Saint-Petersburg]; 1994.
4. Hakeem AA, Folorunso MA, Kunihya A, Jerome J. Productivity and Water Use Efficiency of Sorghum [Sorghum bicolor]. Int J of Agron; 2018.
5. Shen F, Hu J, Liu MLY, Saddler JN, Zhong Y, Liu R. Ethanol production from steam-pretreated sweet sorghum with high substrate consistency enzymatic hydrolysis. Biomass Bioen. 2012; 41:157-164.
6. Dospekhova BA. Methods of field techniques. Moscow; 1979.
7. Sharma YS, Dhillon MK, Reddy BVS. Expression of resistance to *Anterigonasoccata* in F1 hybrids involving shoot fly-resistant and susceptible cytoplasmic male sterile and restorer lines of sorghum. Plant breeding. 2006; 125:473-477.
8. Udolskaya NL. Introduction to biometry. Alma-Ata: Nauka Kaz. SSR; 1976.
9. Patel PC, Patel JR, Joshi RS, Raman S. Scheduling irrigation in ratoon sorghum on the basis of critical stages of plant growth. Gujarat. Agr Univ Res. 1989; 2:1-6.
10. De Wet MJM, Huckabay JP. The origin of sorghum bicolor. Distribution and domestication. Evolution. 1967; 21:787-802.
11. Hunter EL, Anderson IC. Sweet Sorghum; 2010.
12. Awika JM, Rooney LW. Sorghum phytochemicals and their potential impact on human health. Phytochemistry. 2004; 65:1199-1221.
13. Rooney WL, Blumenthal J, Bean B, Mullet JE. Designing sorghum as a dedicated bioenergy feedstock. Biofuels Bioproducts Biorefining-Biofpr. 2007; 1:147-157.
14. Vanderlip RL, Reeves HE. Growth Stages of Sorghum [Sorghum bicolor]. Agron J. 1972; 64:13-16.
15. Ma H, Hua X. Breeding for sweet sorghum with high grain yield and sweet stalks. Sorghum Newsl. 1986; 29:2-3.
16. Lu N, Ma J. Research on sweet sorghum and its synthetic applications. Biomass. 1989; 20:129-139.
17. Karve AD, Ghaneker AR, Kshirsagar SH. Further investigations on sweet sorghum. Sorghum Newsl. 1975; 18:40-41.
18. Broadhead DM. Influence of bagging sweet sorghum panicles on stalk yield and juice quality. Crop Sci. 1979; 19:195-196.
19. Hoshikawa K. Pre-experiment of cultivation of biological energy sweet sorghum. Agri and horticulture. 1981; 56:497-503.
20. Sharpley AN, Smith SJ, Williams JR, Jones OR, Coleman GA. Water Quality Impacts Associated with Sorghum Culture in the Southern Plains. J of Environ Qual. 1991; 20:239-244.
21. Broadhead DM, Freeman KC. Stalk and sugar yield of sweet sorghum as affected by spacing. Agronomy J. 1980; 72:523-524.
22. Sorghum production. ARC-Grain Crops Institute; n.d. Available from: https://www.nda.agric.za/docs/Infopaks/FieldCrops_Sorghum.pdf
23. Breeding and cultivation of sweet sorghum; n.d. Available from: <http://www.fao.org/docrep/t4470E/t4470e05.htm>
24. Strokes IE, Coleman OH, Dean JL. Culture of sorgho for sirup production. Washington, D.C.: U.S. Dept of Agri; 1957.
25. Garshin AYu, Zhuzhukin VI, Semin DS. Determination of combining ability of variety samples of sweet sorghum for grain quality in tester crosses. Kukuruzo Sorgo. 2014; 1:20-23.
26. Beta T, Corke H. Genetic and Environmental Variation in Sorghum Starch Properties. J of Cereal Sci. 2001; 34:261-268.
27. Kulamarva AG, Sosle RS, Raghavan GSV. Nutritional and Rheological Properties of Sorghum. Int J of Food Properties. 2009; 12.
28. Brannan GL, Setser CS, Kemp KE, Seib PA, Roozeboom K. Sensory characteristics of grain sorghum hybrids with potential for use in human food. Cereal Chem. 2001; 78:693-700.

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