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Economic sciences

TRANSFORMATION OF THE STATE MECHANISM OF SOCIAL GUARANTEES IN MODERN CONDITIONS

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Abstract

The problem of social responsibility and social guarantees is relevant in modern society, in relation to employers and the state as a whole. In the Republic of Kazakhstan, the mechanism of social guarantees is changing in accordance with the Concept of Safe Work until 2030 based on the transition to a risk-based approach. The renewal of the national occupational safety management system is associated with the reform of the economic mechanism for providing guarantees for workers in harmful and dangerous working conditions.

The economies of the Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan) are in a state of transformation, the COVID-19 pandemic has led to a decrease in economic growth and changes in the dynamics of inflation in the countries of the region. Kazakhstan is a democratic, secular, legal and social State where everyone has the right to safe and healthy working conditions. The International Labour Organization (ILO) believes that deaths from injuries at work can be successfully prevented.

In Kazakhstan, 16,024 industrial accidents have occurred over the past 10 years, including 2,339 deaths. In 2023, the indicator exceeded the indicator of 2019 by 3 times. • In the mining industry, which is the most attractive area for investors, the share of deaths at work is up to 5% of the total number of deaths at work. Despite efforts to improve safety at many mining enterprises, the mining industry remains one of the most dangerous industries in Kazakhstan and in most countries.

The current situation requires the adoption of legislative and organizational measures, as well as the improvement of discipline and personal responsibility of employees. The creation of safe and healthy working conditions for workers engaged in hard work, work with harmful (especially harmful) and dangerous working conditions requires the State to develop and apply fundamentally new conceptual approaches in the field of social protection and labor protection.

The transition from a status-based, list-based approach to providing guarantees to a risk-based approach based on real working conditions. The risk-based approach requires the expansion of the theoretical and methodological base and the dissemination of a mechanism for providing social guarantees for people working in harmful and dangerous working conditions.

Improving the system of social guarantees in the Republic of Kazakhstan requires targeted measures, including the creation of a system for monitoring and evaluating social programs, strengthening the targeting of social assistance, developing a system of vocational rehabilitation and retraining, reforming the pension system taking into account the increase in the number of elderly people, supporting families with children through new social protection programs, digitalization of social services, improving the level of health insurance and accessibility of services, measures to support the elderly and disabled, the introduction of the principles of the "green" economy in social programs, improving communication and transparency of the social

security system

Keywords: Harmful working conditions, occupational safety and health, social guarantees for employees, risk-based approach, public and private support programs

Transformation of social guarantees in Kazakhstan and the world/

The article presents the results of research obtained during the implementation of a scientific and technical program on the topic "Transformation of the state mechanism of social guarantees for persons employed in harmful working conditions in a modern context" (IRN AP23490760).

In modern society, the problem of social responsibility and social guarantees is especially relevant, since effective interaction between society, the state and business is necessary for the sustainable economic development of the country. In particular, modern enterprises are faced with such tasks as employment and professional training of personnel regardless of gender, national or other differences, ensuring labor protection and social guarantees for employees, as well as, in connection with the increased demand for goods, the implementation of measures to protect the environment by enterprises.

The mechanism of social guarantees is changing in accordance with the Concept of safe work in the Republic of Kazakhstan until 2030. The need to implement state measures to update the national occupational safety management system based on a risk-based approach introduced into the labor legislation of the Republic of Kazakhstan in accordance with the requirements of the International Labor Organization Convention No. 187 On the Fundamentals Promoting Occupational Safety and Health [1].

In general, the national model of occupational safety and health management is based on the compensatory principle of classifying working conditions as safe (optimal, acceptable) and unsafe (harmful and dangerous), which partly helps to encourage employees to work in unfavorable working conditions, and the employer is not interested in improving working conditions, reducing the number of jobs with harmful conditions labor, modernization of production, automation of production and technological process, etc. The list approach in providing state guarantees entitling workers engaged in hard work, work with harmful and dangerous working conditions to "benefits" and "compensation" is based on the traditional approach.

A phased transformation of the state mechanism for providing guarantees when working in harmful and (or) dangerous working conditions is underway, i.e. the transition from a list-based to a risk-oriented approach and the reform of the economic mechanism of "benefits" and "compensations" for providing employees employed in harmful and (or) dangerous working conditions with additional leave, reduced working hours time, increased wages, the provision of milk and therapeutic and preventive nutrition, to establish the amount of mandatory occupational pension contributions.

The economies of four Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan) are undergoing a transformation characterized by the growth of the service sector, a corresponding decline in agriculture, and stable industrial production. These Central Asian countries differ in the degree of economic development. While Kazakhstan can be classified as an upper-middle income country, other countries lag behind in terms of GDP per capita. The COVID-19 pandemic disrupted the markets of the countries of this region, which led to a decrease in economic growth and changes in the dynamics of inflation. While the inflation rate in Kazakhstan, Kyrgyzstan and Uzbekistan has increased in recent years, in Tajikistan it has been consistently decreasing for a long time. As for the change in GDP, Kazakhstan and Kyrgyzstan experienced a significant decrease in GDP growth rates during the pandemic, which recovered to previous levels in 2021. In Tajikistan and Uzbekistan, GDP growth remained positive throughout the pandemic period.

According to the Constitution, the Republic of Kazakhstan is a democratic, secular, legal and social state, the highest values of which are a person, his life, rights and freedoms.

Everyone has the right to working conditions that meet the requirements of safety and hygiene, to remuneration for work without any discrimination, as well as to social protection against unemployment. Neither the amount of wages, nor the level of profitability of the enterprise, nor the value of the product produced can serve as a basis for neglecting safety rules and justifying existing threats to the life or health of employees.

The situation in Kazakhstan and the world of occupational safety and health

The International Labour Organization (hereinafter - the ILO) cannot agree with the statement that injuries and diseases are inevitable companions of work. Deaths, accidents and illnesses at work can be successfully prevented.

There are about 125 million workplace accidents worldwide every year. On average, about 220 thousand people die. Mortality from injuries sustained at work today ranks third in the world. According to statistics from the Ministry of Labor and Social Protection of the Population of the Republic of Kazakhstan, 16,024 people have been injured in the workplace over the past 10 years, including 2,339 deaths.

At the same time, the indicator of the past 2023 exceeds the indicator of a more "prosperous" 2019 by 3 times (74 against 23). It should also be noted that the global specific injury rate in the coal industry is calculated by the ratio of deaths per million tons of coal mined [2].

For example, as of 2020, the specific fatal injury in the United States amounted to 0.01 people for every million tons of coal, whereas in Kazakhstan over the same period this figure stopped at 0.26. The ILO report shows that the mining industry employs less than 1 percent of the world's workforce, but the industry accounts for up to 5 percent of fatal accidents.

Despite great efforts to improve occupational safety at many mining enterprises, mining continues to be a production with the most dangerous working conditions in most countries.

In our case, the share of the mining and metallurgical industry over the past 10 years has ranged from 11.7 to 29.5 percent of the total number of deaths at work, which exceeds the ILO data, from 5% by 2-5 times.

The study of the acts of special investigation⁷ accidents at the mines of the Coal Department of JSC ArcelorMittal Temirtau (now Qarmet) showed that in recent years the main causes of accidents have been and remain a high level of gas contamination of mines, violations and disregard of safety requirements, lack of preventive and preventive measures.

Taking into account the above, the current situation requires the adoption of a set of legislative and organizational measures, as well as improving the discipline and personal responsibility of each employee.

The desire to create safe and healthy working conditions for workers engaged in hard work, work with harmful (especially harmful) and dangerous working conditions requires the state to develop and apply fundamentally new conceptual approaches in the field of social protection and labor protection.

The overall goal is to fulfill the key tasks set out in the Concept of Safe Work in the Republic of Kazakhstan until 2030, such as reducing the number of workers employed in harmful and dangerous industries, and achieving the objectives set out in the Concept of Social Development until 2030, including building an effective model of social and labor relations based on productive employment and ensuring safe workplaces [3].

Now all workplaces are considered certified, regardless of the result of certification of production facilities according to the conditions. Many experts criticize the poor quality and formality of the certification procedure. This system does not take into account changes in production and technology, which puts in a difficult position enterprises that have improved technological processes, but have not changed their full-time professions.

The certification evaluates only production factors that are not related to the health of employees, without taking into account stress, mental stress and behavioral characteristics of employees of different ages, which is assessed by a professional risk assessment.

Certification requires significant financial costs, which are covered by the budgets of enterprises, which makes it difficult to conduct it in small enterprises.

The solution to these problems is seen in the transition from a status-based list approach to the provision of benefits and guarantees to employees engaged in time management to a risk-based approach based on real working conditions in the workplace.

The risk-based approach as a vector of development of regulatory and legal regulation in the field of labor protection requires the expansion of the theoretical and methodological base and dissemination in the mechanism of providing social guarantees to persons employed in harmful and (or) dangerous working conditions.

Legislative measures and scientific programs

Currently, in the Republic of Kazakhstan, state regulation of the labor of workers engaged in heavy work, work with harmful (especially harmful) and (or) dangerous working conditions is carried out through a mechanism for providing guarantees in the form of reduced working hours (paragraph 2 of

Article 69 of the Labor Code of the Republic of Kazakhstan), additional paid leave (paragraph 1 of Article 89 Labor Code of the Republic of Kazakhstan), increased wages (Article 105 of the Labor Code of the Republic of Kazakhstan) according to the approved List of industries, workshops, professions and positions, the list of heavy work, work with harmful and (or) dangerous working conditions. Also, labor legislation obliges the employer, at its own expense, to ensure the delivery of milk or equivalent food products, and (or) specialized products for dietary (therapeutic and preventive) nutrition (paragraph 4 of Article 182 of the Labor Code of the Republic of Kazakhstan) to employees directly engaged in harmful types of production.

The implementation of the priorities outlined in strategic and program documents determine the state significance of scientific research, in particular according to task 2 "Ensuring social well-being" of the Strategic Development Plan of the Republic of Kazakhstan until 2025. The risk assessment will identify the harmful effects of production factors at each specific workplace and reduce the risk of accidents and occupational diseases, which fully reflects the focus of the research object of the Program. In terms of the implementation of the strategic task stated in the Concept of Kazakhstan's entry into the top 30 most developed countries in the world, the Program will allow the implementation of a set of government measures. The program provides for measures to improve legislation in accordance with the Action Plan to ensure Safe Work in the Republic of Kazakhstan until 2025.

To improve the system of social guarantees in the Republic of Kazakhstan, the following measures can be proposed.

Creation of a comprehensive monitoring and evaluation system for social programs:

Implement platforms for regular monitoring of the effectiveness of social programs and their adjustments based on up-to-date data. This will allow for a more accurate assessment of the extent to which target groups receive the necessary assistance and minimize cases of abuse.

Strengthening the targeting of social assistance:

Implement more accurate algorithms for identifying those in need based on digital data and automated systems. This will allow for a faster response to changes in income and life situations of citizens, as well as more efficient allocation of resources.

Development of the vocational rehabilitation and retraining system:

Create programs for retraining and training of the unemployed, including digital skills, with a focus on in-demand professions in the labor market. This will help citizens adapt more quickly to changing economic conditions.

Reform of the pension system, taking into account the increasing number of elderly:

Consider the introduction of flexible pension plans that allow citizens to choose the time of retirement, as well as increase support for funded pension schemes to increase their sustainability.

Support for families with children through new social protection programs:

Develop programs to support large families and families with children with special needs, providing access to free educational and medical services, as well as additional financial benefits.

Digitalization of social protection services:

Expand digital services on the eGov platform.kz, so that citizens can easily and quickly receive social services online, including registration of benefits, receiving consultations and applying for social assistance.

Conclusions and suggestions for improving the social security system

Improving the level of health insurance and accessibility of services:

Increase the financing of compulsory health insurance to improve the quality and accessibility of medical services, especially for vulnerable groups and low-income citizens.

Measures to support the elderly and disabled:

Develop social and health care programs at home for the elderly and citizens with disabilities, including free services of nurses and social workers.

Implementation of the principles of the "green" economy in social programs:

To support the development of jobs in the field of "green" economy (energy, ecology) through targeted training and employment programs, while reducing the social burden on the economy and stimulating sustainable development.

Improving communication and transparency of the social security system.

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Geographical sciences

TERMINOLOGY IS A MEANS OF DEVELOPING A GEOGRAPHICAL SCIENTIFIC LANGUAGE

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Abstract

The language of geographical concepts and terms -in geographical science, concepts and terms as the basis of general scientific knowledge form a single system in close interrelation or consist of an explanatory and terminological apparatus (S. V. Kalesnik, V. B. Sochava, D. L. Arman, I. S. Shchukin, A. G. Isachenko, E. B. Alaev, V. S. Preobrazhensky, etc. Alexandrova et al.). Geographical concepts and terms also obey each other. A scientific term performs an auxiliary function for a geographical language, and a concept performs a basic function. This is due to the fact that the concept serves as a support for scientific laws and patterns, doctrines, theories, conclusions and assumptions covering the content-theoretical part of knowledge.

Currently, the issues of system analysis of comparative typological geographical terms are relevant. Including geographical terminology in Russian and Kazakh languages has not yet been fully studied from the point of view of linguistic and functional aspects as part of scientific terminology. Insufficient comprehensive study of geographical term systems, non-description of the structural and semantic features of terms, and not yet a sufficient number of industry dictionaries make it difficult to translate terms in professional specialized geographical literature. In this regard, the article discusses the issues of terminological research and analysis of the theoretical foundations of the formation of geographical terminology.

Keywords: *terminology, geographical terminology, toponymy, language of geographical concepts and terms, geographical facts, folk terms, local geographical terms, functional formulation of the term.*

The first works on the theory of terminology were carried out in Europe simultaneously with the formation of many sciences. Its initiators were Lavoisier, Linnaeus, Durer, Leonardo da Vinci. During this period, the first attempts to normalize terminology took place, and the development of science required the creation of terminology. For this reason, the emergence of new words to denote facts in every field of science has forced professionals to think about creating special lexicons containing names.

The formation of the general theory of terminology occurred in the XIX century, this period was marked by the creation of a number of artificial languages (Esperanto, ido, Volyapyuk, etc.). The initial stage in the development of terminological work was systematic research on the ordering of vocabulary and word-formation tools.

The study of geographical terminology or geographical appeal at the present stage is becoming one of the urgent problems of ethnolinguistics, onomastics, bordering on the science of language, and the toponymic part of the subject of geography. The composition of geographical appellate vocabulary is important not only for toponymic specialists, but also for dialectical researchers in determining the lecture units of each region. The linguistic and geographical study of the appellate vocabulary is closely related to the scientific orientation of the researcher of the vocabulary of the language, dialects of each region.

The main thing for geographical terminology depends on the relationship between the origin of the word and the territorial-geographical appellate vocabulary.

Like any branch of science, geography has its own terminology, which distinguishes concepts, reference books and terms. In geographical terminology, concepts are characterized by knowledge of the environment, and terms are classified. There are definitions of geographical concepts and terms, scientists can give several definitions to concepts from their point of view, and the definition of a term is one.

In geography, the first term was Eratosthenes (275-195 BC). geography (geo-Earth, graph –writing, description) is a branch of science describing the geographical shell of the Earth, the stages of its development.

The stages of the formation of geographical terminology have their own history. The first four volumes of the "geographic and Statistical Dictionary of the Russian Empire" were published in 1863, the last 4 volumes - in 1885. Great merit in its compilation belongs to E. I. Lamansky. L. S. Berg, attaching great importance to dialectical geographical vocabulary and its values, calls local geographical terminology "the science of folk crafts" [1].

Folk terms, for example, geomorphological and landscape ridge, hill, yayla, taiga, tundra, are of great importance in supplementing scientific terminology. Tundra and taiga belong to international terms, and the use of the term moraine dates back more than 200 years, the origin of which is associated with the vocabulary of peasants living in the Swiss Alps. Geomorphology volcanology the term caldera in the fields of science is Spanish caldera, Portuguese Caldeira - meaning "cauldron", "hearth".

The famous geographer Ya. V. Khanykov for the first time in 1947 proposed to the Council of the Russian Geographical Society to compile geographical terminology, for example, mountain, mountain, steppe, tundra, etc. not only as a nomenclature dictionary, but also defines words. In the compilation of the "Russian geographical terminology", Y. V. Khanykov proves that ethnographic, statistical terms and geographical lexical words of the population should be included and should be available in science. His idea was put forward by the largest scientists of that time, N.I.Nadezhdin, N.A.Milyutin, N.S.Shchukin, P. F. Kuzmishchev, academician A.I. Shrenk, V. I. Dahl, in the same year a terminological commission under the leadership of N.I.Nadezhdin will be established at the Geographical society. His first article on terminology is devoted to the fact that geographical objects have local names, concepts related to type, size, composition, quality, etc. Then geographical terms from different regions of Russia begin to arrive at the geographical society [2].

Currently, a number of studies are being conducted related to the study of folk geographical terms and geographical names, which are becoming scientific terminology. For example, hydrological scientists often use the term Central Asian Karasu, as well as the national terms alas (from Yakut), takyr (Turkmen), laida (Karelian), etc. are used in geographical dictionaries. In 1959, the publishing house of geographical literature published a dictionary of local geographical terms by E. and V. Murzaev, which describes in more detail the terminological words from the northern regions of the RSFSR, the countries of Siberia, Kazakhstan, and Central Asia.

E. M. Murzaev supplements the Dictionary of Local Geographical Terms and republishes it in the Moscow publishing house in 1984. The dictionary preserves the names of localities accepted in official sources, and the Combined and individual spelling of these names. For example, if personal or word combinations are often stored in the Kyrgyz state, then in the Kazakh country it is given as a combined word. For example, Karatau, and the Kyrgyz have Kara Ozer, Jalalabad, the Azerbaijanis have Jalilabad, the Afghans have Jalalabad. Tashkent is the capital of the Uzbek country, Tashkent itself writes, Azerbaijanis-Baku-Baki, Turkmen-Ashgabat-Ashgabat, Moldovans-Chisinau-Chisinau, etc. Russian-language terminology in geography is studied in the works of scientists A. I. Chistobaev, V. V. Bartold, R. I. Abolin, T. A. Shumovsky, A. Z. Egorin, V. I. Gusarov, etc., contains various textbooks, dictionaries, reference books, translation from Arabic literature published [3].

Each country has its own geographical terminology, for example, the geographical terminology of the Armenian country is used by G. S. Abrahamyan, V. V. Mazinga, terms of Estonia, G. I. Zardalishvili, terms of Georgians, B. Sh. Abdimanapov, dictionary of general geographical concepts and terms, K. D. Kaymuldinov, K. T. Saparov studied the geoecological foundations of Kazakh toponyms, geoecological foundations toponymy, etc. [4, 5, 6].

The study of geographical terminology or geographical appeal at the present stage is becoming one of the urgent problems of ethnolinguistics, onomastics, bordering on the science of language, and the toponymic part of the subject of geography. The composition of geographical appellate vocabulary is important not only for toponymic specialists, but also for dialectical researchers in determining the lecture units of each region. The linguistic and geographical study of the appellate vocabulary is closely related to the scientific orientation of the researcher of the vocabulary of the language, dialects of each region.

The main thing for geographical terminology depends on the relationship between the origin of the word and the territorial-geographical appellate vocabulary. Each field of science has its own basic concepts. The basic concept for the subject of Geography is "geographical object". A geographical feature includes any object that can indicate its coordinates belonging to the planet Earth. A mountain, a river-lakes, a forest - it forms a geographical object, for example, a forest consists of many trees, which we call a common geographical object.

The composition and linguistic basis of geographical terminology are related to the etymological study of regional toponyms, since toponyms borrowed from a foreign language predominate in geographical terms. For example, in the northern territories of the European part of Russia from the Finno-Ugric (vakhta is a swamp related to a plant growing here; ingir is a river, a toponymic word; kurpaga is river basins, i.e. In the western and northwestern territories - the Baltic Sea (cliff, dam, moraine, etc.), in the southern territories geographical terms of Turkic origin (tree, bogaz, buyuk, kuchuk, wadi, etc.) are common [7].

The distinctive features of geographical science are reflected in the geographical scientific language. The general scientific language has the character of internal connection, unity, stability, openness in general scientific integration. The study of scientific language is at the heart of science, logic, and linguistics, and today it still needs to be fully studied. Now each field of science studies all the subtleties of this science in its own language, for example, physico-physical scientific language, chemical – chemical scientific language, geography – geographical scientific language.

A term (Latin terminus – boundary, limit, end of a word) is a word or phrase used in any scientific field, as well as interpreting a scientific concept in the fields of science. And terminology is a collection of terms. The terms of each field of science are explained using a language tool in vocational education, creating a system. The concept of a term is directly related to scientific language and plays a very important role in any scientific field, since the accuracy of the conclusions of any research work depends on the semantic accuracy, uniqueness and reliability of the term. The geographical scientific language is complex and diverse, since geography characterizes natural and social phenomena not only with words, but also with formulas, complex tasks, and models. Currently, the geographical scientific language and the language of the geographical map are distinguished.

Currently, geographical concepts are classified by meaning into 7 groups, of which 30 general scientific and general geographical concepts, 30 physico-geographical and related concepts, 30 geographical resource and geoecological concepts, 30 geography of peoples, geodetic, ethnographic concepts, 30 economic and political geographical concepts, 15 recreational and medical concepts, 15 cartographic concepts.

From the concept of the first degree, the concept of the second degree arises, for example, geographical forecast-complex, sectoral, global, regional local; from the concept of atmosphere – atmospheric circulation, atmospheric front, stratosphere, troposphere, ozone layer, etc. the geological year counts down to the Cambrian, Paleozoic, Mesozoic, Kainaz, Paleogene, Neogene. Mineral resources are fuel, ore and non-metallic.

From the concept of the second degree comes the concept of the third degree, for example, the Mesozoic era – Cretaceous, Jurassic, Triassic periods. Fuel resources-coal, oil-gas, etc.

Scientific terms denoting concepts of the fourth degree – meridian, parallel, atmospheric pressure, salinity of water, sedimentary rocks, etc. The concepts of the fifth degree are the simplest. It consists of mountains, rivers, swamps, terraces, mines, etc.

Concepts and terms form the basis of theoretical knowledge, and facts form the basis of empirical knowledge. Without geographical facts, no theory or conclusions can be proven, so the fact is the basis of theoretical knowledge. Geographical science studies reliability and reliability, therefore facts are used in geographical science to substantiate teachings, theories, conclusions, assumptions, their clarification and interpretation, affirm the connections of theory and practice, describe real phenomena, processes and objects. Scientific facts have personal and subordinate significance, they are classified as facts of I, II, II degree, etc. For example, the global desertification of the earth or the rapid growth rate of the population of the planet Earth are classified as facts of the I degree, the development of the Sokolovsko-Sarybaysky Ore basin is classified as facts of the II degree, the construction of the Pavlodar Aluminum Plant is classified as facts of the III degree.

Each of these terms, used as a collective name for types of geographical objects, has different meanings individually, so the motives for becoming a term also differ. For example, in the title "term indicators, components of a complex word" there is no geographical meaning, there is only a linguistic description of the structure of the word. Similarly, while "national geographic terms" are limited to a specific language, "determinants" also include non-geographic terms, so generality rather than specificity prevails in the sense. The formation of terms in a language is a phenomenon that in most cases occurs with the deepening of scientific research and the definition of scientific concepts, therefore, in such controversial cases, the completion of this process requires some time. Considering this issue, it is of great importance to study the definition of toponymic concepts [8, 9].

The unification of geographical terms in the Kazakh language is one of the urgent problems at the present time, as there are disagreements among scientists, such as "the use of international terms in the original" and "translated use". When translating terms, alternative terms also appear due to the lack of general agreement between the authors. For this reason, the names of the geographical objects discussed in the article are of a different nature. The very concept of "names of geographical objects" was once called "folk terms", and once "geographical terms". The first one was so named because it has been popular since ancient times, and the geographical term originated in the process of becoming a branch of science. And in the Kazakh language, these traditional folk terms, which are directly involved in toponymization, have a different name among onomastic scientists. In this regard, U.Zhanova noted that "geographical terms serve as an asset in the creation of toponyms and continue to appear in different positions. Due to such diverse activities in the creation of toponyms, these terms have different names in toponymy. These are national geographic terms, determinants, indicator terms, toponymic formants, or components of a compound word." A similar opinion is expressed by B. Biyarov, who argues that the concept of "geographical term" continues to be adequately used in our language with the concepts of common, appellative, numbered, nomenclature, toponymic terms." And K. Saparov refers to "swamp, boz, steppe, plain, anvil, shelf, sand, Moinak, clay, litter", etc. To the "orographic term" describing the surface cover [10, 11].

Each of these terms, used as a collective name for types of geographical objects, has different meanings individually, so the motives for becoming a term also differ. For example, in the title "term indicators, components of a complex word" there is no geographical meaning, there is only a linguistic description of the structure of the word. Similarly, while "national geographic terms" are limited to a specific language, "determinants" also include non-geographic terms, so generality rather than specificity prevails in the sense. The formation of terms in a language is a phenomenon that in most cases occurs with the deepening of scientific research and the definition of scientific concepts, therefore, in such controversial cases, the completion of this process requires some time. Given this issue, it is important to study the definition of toponymic concepts.

Currently, the issues of system analysis of comparative typological geographical terms are relevant. Including geographical terminology in Russian and Kazakh languages has not yet been fully studied from the point of view of linguistic and functional aspects as part of scientific terminology.

Insufficient comprehensive study of geographical term systems, non-description of the structural and semantic features of terms, and not yet a sufficient number of industry dictionaries make it difficult to translate terms in professional specialized geographical literature. Linguistic features of term words are studied in linguistic research. Proponents of the Termini approach to words from the point of view of the structural-substantial approach (S. Lotge school of terminology) consider the term as a separate word or lexical unit. And from the point of view of the functional approach to terms, researchers (V. G.Gak, B. N. Golovin, V. I. Perebinyos, V. M. Leychik, F. A. Citkina, T. I. Panko) argue that the term is a function, a type of use of lexical units.

The study of geographical terminology is based on the functional formulation of the term, that is, on the functional diversity of the literary language. The term is the unity of the term system, which, in connection with the development of science, new concepts appear instead of the former ones, which are constantly developing and changing, i.e. the main feature of the term system is determined along with continuous scientific and technological progress in society.

The specificity in the system of geographical terms lies in its semantic definition (the absence of a word in two different meanings). In some cases, the preservation of the functional elements of the concept remains mandatory, provided that its content is changed by researchers. In geographical terminology, some terms such as geography, map, mainland, atlas, etc. are considered basic terms.

Geographical terminological research examines the issues of determining the semantic organization and functional properties of geographical terminology, as well as the construction of geographical terms. The semantic organization of geographical terminology is solved from the point of view of theoretical nomination. Currently, the ordering, standardization, and unification of geographical terminology from the point of view of digital systems is well established.

Modern geographical terminology has been formed by genetic connections. In the formation of terminology in this field of science, the systematic connection of geographical terminology with related fields of science is important. Based on the vocabulary similarity of geographical terminology and other fields of science:

- general scientific;
- geographical;

- meteorological;

- environmental;

- economic and other geographical terminology, in which the main terminological groups are distinguished. With the help of component analysis, within the framework of the terminological meanings of these lexical units, a "correlation scheme with geographical concepts" is determined, the presence of which is considered a system-forming property that allows these terms to integrate into the system of geographical terminology [12, 13].

The functional features of the term are expressed in the connection of the term with the concept. New concepts related to the development of science and technology are transmitted through terms. Terms are created by special systems of concepts. The term is enhanced by linking the epistemological function with the concept. Based on this, terminology is defined as a system of terms of a given science, each of which is associated with a system of concepts corresponding to a certain system of terms. A geographical term is a special case of a term denoting the concept of geographical science.

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Medical sciences

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CUTANEOUS MELANOMA: MODERN REALITIES AND TRENDS

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In this scientific and analytical work, modern world and regional data on incidence, mortality, lethality and five-year survival rate are considered, as well as the forecast of such a formidable disease as cutaneous melanoma. The geographical features of the prevalence of this disease and current trends are covered in detail. The epidemiological aspects of this pathology in our republic are shown in the context of regions of the country.

Keywords: *cutaneous melanoma, epidemiology, incidence, mortality, lethality, five-year survival rate, prognosis.*

As is known, one of the most aggressive forms of skin tumors is cutaneous melanoma, which, for a number of known reasons, is classified as a separate cluster of skin tumors. Cutaneous melanoma is a malignant neoplasm that arises from skin melanocytes. The incidence rate is rising, especially among the white population. Melanoma of the skin usually occurs due to exposure to ultraviolet radiation from natural sunlight and indoor tanning, although there are several subtypes that are not associated with exposure to ultraviolet radiation. Primary melanomas are often darkly pigmented but may be colorless, with diagnosis based on a combination of clinical and histopathological findings. Primary melanoma is treated with wide excision, the margins of which are determined by the thickness of the tumor. Further treatment depends on the stage of the disease (following histopathological examination and, if necessary, sentinel lymph node biopsy) and may include surgery, checkpoint immunotherapy, targeted therapy or radiotherapy. Systemic drug therapy is recommended as an adjunct to surgery in patients with resectable locoregional metastases and is the mainstay of treatment for advanced melanoma. Treatment of advanced melanoma is challenging, especially in patients with brain metastases. Multidisciplinary care is essential. Systemic drug therapies, particularly immune checkpoint inhibitors, have significantly improved survival in melanoma following a series of landmark approvals beginning in 2011 [1,2].

Melanoma develops as a result of malignant transformations of pigment-producing melanocytes. When located in the basal layer of the epidermis of the skin, melanoma is called cutaneous, which is more common. Australia and New Zealand are world leaders in this regard with an incidence rate of 54/100,000 and a mortality rate of 5.6/100,000 for 2015 [3].

According to the WHO classification of skin tumors published in 2018, melanomas were divided into those that are etiologically related to sun exposure and those that are not, determined by their mutational signature, anatomical location and epidemiology. Melanomas on sun-exposed skin were further divided by the histopathological grade of cumulative sun damage (CSD) of the surrounding skin into low and high CSD based on the degree of associated solar elastosis. Melanomas with low CSD include superficial spreading melanomas, and melanomas with high CSD include lentigo maligna and desmoplastic melanomas. The nonsolar category includes acral melanomas, some congenital nevus melanomas, blue nevus melanomas, Spitz melanomas, mucosal melanomas, and uveal melanomas. The general term "melanocytoma" is thought to cover "intermediate" tumors that have an increased (albeit low) likelihood of disease progression to melanoma [4].

Although many cases are preventable, cutaneous melanoma remains the most serious skin cancer worldwide. Understanding the scope and profile of the disease is vital to focusing and strengthening global prevention efforts. Arnold M. et al. [5] examined global patterns of cutaneous melanoma in 2020 and provided projected estimates of incidence and mortality by 2040. This population-based study used

the GLOBOCAN 2020 database to provide a global epidemiological estimate of new cases and deaths from invasive melanoma.

Age-standardized incidence and mortality rates were calculated per 100,000 person-years by country, world region, and 4-level human development level. The estimated number of cases and deaths was calculated for 2040. In 2020, it is estimated that there were a total of 325,000 new cases of melanoma (174,000 men, 151,000 women) and 57,000 deaths (32,000 men, 25,000 women) worldwide. The highest incidence rates among men (42 per 100,000 person-years) and women (31 per 100,000 person-years) are observed in Australia/New Zealand, followed by Western Europe (19 per 100,000 person-years for both men and women), North America (18 per 100,000 person-years for men, 14 per 100,000 person-years for women), and Northern Europe (17 per 100,000 person-years for men, 18 per 100,000 person-years for women). Melanoma remained rare in most countries in Africa and Asia, with incidence rates typically less than 1 per 100,000 person-years. Mortality rates peaked at 5 per 100,000 person-years in New Zealand, and geographic variation was less pronounced than incidence. In most regions of the world, melanoma was more common among men than women. If 2020 rates continue, the burden of melanoma is estimated to increase to 510,000 new cases (an increase of approximately 50%) and 96,000 deaths (an increase of 68%) by 2040 [5].

This epidemiological assessment shows that melanoma remains an important cancer control and public health problem worldwide, particularly among fair-skinned populations of European ancestry.

The incidence of cutaneous melanoma in the Republic of Kazakhstan in 2022 was 1.7 per 100 thousand population, which in absolute numbers amounted to 336 people, occupying 21 ranking places, as in the previous year. The share of cases with a diagnosis established for the first time in their lives, recorded by oncology organizations, was 1.0%. At the same time, 125 men fell ill (specific gravity - 0.8%, rank 16), women - 211 (specific gravity - 1.1%, rank 17) [6].

The incidence of cutaneous melanoma was higher than the national average in 8 regions of the country: East Kazakhstan region - 4.4 (maximum indicator); Pavlodar - 3.7; Kostanay - 3.6; Karaganda - 3.5; North Kazakhstan - 2.4; Abay - 2.3; Almaty - 2.0 and Zhetysay - 1.9. The indicator is lower in 11 regions: in Turkestan and Kyzylorda - 0.4 (the lowest indicator); Atyrau region - 0.6; Aktobe - 1.0; Almaty and Shymkent - 1.1; Zhambyl and Astana - 1.2; Mangistau and West Kazakhstan - 1.3 and Akmola - 1.5 regions per 100 thousand population [6].

In the structure of causes of mortality for both sexes, this disease, as well as incidence, occupies 21st place, amounting to 0.7%, and in absolute numbers - 92 people (46 men and the same number of women).

The regions where the mortality rate from cutaneous melanoma is higher than the national average (0.5 per 100 thousand population) include: Karaganda - 1.2 (maximum level); Abay, East Kazakhstan and Kostanay - 0.8; Pavlodar - 0.7; North Kazakhstan and Almaty - 0.6. In parity with the republican average - Zhambyl region and Astana. The lowest rates were noted in West Kazakhstan - 0.0; Atyrau region - 0.1; Aktobe, Turkestan and Kyzylorda - 0.2; Mangistau, Almaty, Zhetysay, Shymkent - 0.3 and Akmola - 0.4 regions per 100 thousand population [6].

At the same time, the one-year lethality rate was 7.6%. The ratio between one-year lethality and neglect (stage IV) is 1.1. Let us recall that the maximum distance from 1 is the worst ratio between the indicators of one-year lethality and neglect. This nosological form of malignant neoplasms, despite its belonging to the most aggressive types of malignant tumors, showed one of the lowest ratios of one-year lethality and advanced cancer (stage IV).

It should also be noted that during preventive examinations in 2022, cutaneous melanoma can be classified as one of the most actively detected tumors among all cancer localizations with a significant increase compared to the level of 2021 - 74.3% (62.7% in 2021).

However, despite the fact that cutaneous melanoma belongs to visually accessible localizations, in 2022 the proportion of this form of malignant tumors detected in the early stages (0, I-II stages) of the disease decreased from 91.1 to 88.4%. Apparently, the decrease in the availability of assistance in 2020-2021 during the Covid-19 pandemic is having an impact. At the same time, cutaneous melanoma is classified as a form of malignant tumors with a high proportion of patients with stages I-II in terms of nosologies in the entire republic - 83.9% (82.6% in 2021) [6].

The regions where the proportion of patients with stages I-II of cutaneous melanoma is higher than the national average (83.9%) include the following regions: Atyrau, West Kazakhstan and Kyzylorda - 100%; Pavlodar - 96.4%; Almaty city - 95.5%; Almaty - 94.1%; East Kazakhstan - 93.8%; Astana city - 86.7%; Zhambyl and North Kazakhstan - 84.6%. The lowest rates of early diagnosis were found in Aktobe region - 55.6% (the lowest level); Akmola - 60.0%; Zhetysay - 64.3%; Turkestan - 66.7%; Shymkent city -

69.2%; Abay - 71.4%; Karaganda - 77.1%; Mangystau - 80.0% and Kostanay - 83.3% [6].

The highest level of morphological verification occurs at visually accessible locations of malignant neoplasms. These include cutaneous melanoma - 98.2% (96.1% in 2021).

The share of stage IV cutaneous melanoma among all nosological forms of malignant neoplasms was 7.5%, occupying 17th rank in this indicator.

The share of stage IV above the national average was noted in 10 regions of the country: Akmola - 30.0% (maximum level); Abay and Zhetysay - 21.4%; Mangystau - 20.0%; Turkestan and Aktobe - 11.1%; Kostanay - 10.0%; Karaganda - 8.3%; Zhambyl and Shymkent city - 7.7%.

The proportion of stage IV is less than the national average in 9 regions of the country, of which in 6 regions (Atyrau, East Kazakhstan, Kyzylorda, West Kazakhstan, North Kazakhstan, Pavlodar) advanced forms were not identified; Almaty – 5.9%; Astana city – 6.7% and Almaty city – 2.3%.

Now, as for the survival of patients. The number of patients under the supervision of oncological organizations in Kazakhstan for more than five years continued to grow and at the end of the reporting year amounted to 110,790 people, with an increase of 6.6% (2021 - 103,935 people, +4.4%) (form no. 7). The proportion of this category of patients or five-year survival rate for malignant neoplasms with a growth trend is 55.3% (55.0%).

As for cutaneous melanoma, at the end of 2022, 2,689 people, or 13.8 per 100 thousand population, were under observation at the dispensary. At the end of 2021 – 2590 patients and 13.5 per 100 thousand population, respectively.

At the same time, the mortality rate of the observed contingents was 3.4 in 2022 and 4.1% in 2021.

The five-year survival rate of patients with cutaneous melanoma was 60.5% in 2022 and 60.0% in 2021 [6].

Based on the above data, we can conclude that, being the “Queen of Tumors” and belonging to visually accessible localizations, cutaneous melanoma continues to remain a serious problem in modern clinical oncology, since, despite the efforts being made, the forecast for an increase in incidence and mortality from this type of malignant tumors is disappointing. All this requires both oncologists and, first of all, from medical staff of primary health care to increase the level of oncological alertness, inform the population about early symptoms that may indicate this pathology or the onset of proliferative changes and conduct other high-tech preventive and diagnostic events.

An epidemiological assessment of the situation with cutaneous melanoma in our country suggests that there are sometimes significant differences across regions not only in incidence rates, but also in the parameters of early diagnosis and mortality from this pathology. At the same time, it should be noted that cutaneous melanoma can be classified as one of the most actively detected tumors among all cancer localizations during preventive examinations with a significant increase compared to the level of the previous year.

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Pedagogical sciences

DIGITAL TECHNOLOGIES AND INCLUSIVE EDUCATION: NEW PERSPECTIVES

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Abstract

When we look at the history of inclusive education of children with special needs, we can see that the society's attitude towards them is not the same in different periods of development. In some moments (11th-12th century BC and 12th century BC) it even rose to the level of behaving mercifully towards them in the society. In the following years, opinions towards those children changed, and the issue of putting their skills and abilities to the fore was on the agenda. Already in the 70s-80s of the 19th century - the beginning of the 20th century, the issue of "teaching knowledge and skills" to children in inclusive education has become relevant in the society. In the period from the beginning of the 20th century to the 1960s, the creation of special educational institutions for children with disabilities and the provision of uninterrupted medical services and treatment to them have already begun to be reflected in international legal acts. This phase, which spanned approximately 1960-1980, is known as the "normalization model" in inclusive education and is called integration. The named model was developed for the first time in Scandinavia in 1970, and later in the USA and Canada. These were the basis of the "Normalization model". First, children with special needs should live in an environment close to a high standard of normal life. Because the most favorable conditions for those children are their own homes. Also, conditions should be created for them to receive training at home by state authorities. The last stage of this model covers the period from the 80s of the last century until now and is called the "Social model". Observations show that since the 90s of the 19th century, the purpose and essence of inclusive education has changed significantly. That is, it is directed towards the acquisition of professional experience.

Keywords: essence, inclusive education, observations.

There is a constitutional guarantee of the right to education in the Republic of Azerbaijan, which creates a basis for the organization of inclusive education in our country. Inclusive education is the process of development of general education. This also ensures the education of children with special needs. "Schools must accept all children, regardless of their physical, intellectual, social, emotional, language and other characteristics. This also applies to children with mental and physical retardation, special talents, orphans, working children... ethnic and cultural minorities. (Declaration of Salamanca, 1994).

"Persons with limited health opportunities" means persons who have difficulties in learning without creating special conditions, have physical disabilities, mental or mental retardation. Education of these people (special education) In the Law of the Republic of Azerbaijan, it is considered necessary to integrate education for the adaptation of children of this type to society - that is, to create special conditions for these children and train them together with healthy people. One of the biggest problems that children with special needs or, in other words, children with limited health opportunities encounter in the process of inclusion in inclusive education, is their social-psychological adaptation. One of the important issues that concern the developed and developing countries of the world in modern times is the solution of adaptation of children with special needs to educational conditions. If the children involved in inclusive education do not adapt to their classmates and the environment where they will study, if a compact sphere is not created, then a successful result cannot be achieved. The issue of adaptation of children with certain deficiencies in their physical and mental development to pre-school educational institutions, as well as to society, is one of the topics that maintains its relevance. A group of researchers see the retardation of the physical and mental development of children, especially children with disabilities, and their inability to easily adapt to school life in the absence of mental diagnosis at an early age. Most Russian scientists, T.A. Fotekova, Y.S. Ivanov, Y.M. Mastjukova and others put forward such ideas. Another group of scientists, M.S. Pevzner and T.A. Vlasova, consider the defects in mental

development to be psychophysical in their research. In the case of children with limited health opportunities, these setbacks are more evident. Thus, a number of considerations have been put forward regarding the adaptation of children with limitations in their physical and mental development to training and encountering many difficulties in school life. Also, in experiments conducted in connection with other such issues, attention was paid to the factors that negatively affect the mental and physical development of children belonging to that category. is One of the most common psycho-pedagogical problems in children studying in the inclusive education system is their maladaptation. Such a question may arise: "In what cases can the problem of maladaptation be experienced in children with limited health capabilities?" In general, what is social-psychological adaptation? What is meant by social-psychological adaptation of children with disabilities? The concept of adaptation is treated as a general concept that determines the relationship of a living organism with its environment. This concept was brought to science for the first time in 1865 by Aubert. Aubert explained the meaning of the concept of adaptation as a change in sensitivity as a result of long-term exposure to an adequate stimulus. (64) However, this concept has become one of the central concepts of life sciences - philosophy, physiology, medicine, psychology. Different definitions are given to the concept of adaptation in the literature. So, this concept exists in different forms. In a general sense, the concept of adaptation is understood as the need to be adequate to a changing environment. At the same time, when we say adaptation, we can also mention the integration of an individual into a new social environment. Most researchers see the specificity of human adaptation in its active response to the environment. Unlike animals, human adaptability has not only a biological form, but also a developing social environment. The process of social adaptation presents itself as an individual's integration with a social group and acceptance of group norms, values, standards, stereotypes and needs. The concept of adaptation is also used in a number of sciences. Examples of this are philosophy, sociology, psychology and social psychology. Because the process of adaptation is studied in these fields of science, which we have named, and it is studied and studied at the level of the requirements of those fields of science. Studies conducted in a number of scientific fields show that the basis of an individual's adaptation is his acceptance of norms and values. Manifestation of various forms of human behavior also plays an important role in the development of the adaptation process. Adaptation is a process that preserves the adaptation of the human body to the current situation. The change of adaptation manifests itself at all levels of the organism. These changes also play an important role in the regulation of a person's mental activity. Successful adaptation in society is strongly influenced by training process, individual-psychological characteristics, functional and moral condition of people. In modern psychology and sociology, the concept of adaptation is viewed as the correct establishment of mutual relations between the individual and the social environment and the result of these relations.

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Philological sciences

ASSOCIATION RESEARCH IN PSYCHOLINGUISTICS

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Abstract

This article was prepared under the grant financing of the Committee of Science of the Ministry of Science and Higher Education of the Republic of Kazakhstan for 2024-2026 within the framework of the project AP23488671 "Linguistic manifestations of ethnocultural consciousness of Kazakh youth". The purpose of the article is to get acquainted with associative research in psycholinguistics. The article provides an overview of the works of foreign, Russian and Kazakh scientists who studied the science of psycholinguistics. In the article analyzed the types, content and form groups of psycholinguistics based on scientific works on the method of associative research in psycholinguistics. In addition, in the article gave examples of foreign and domestic associative words that are closely related to the concept of association.

Keywords: *linguistics, psycholinguistics, science, association, a word-stimulus, accumulating thoughts, assimilation.*

In today's era of globalization, the speed and qualitative field of development of science is increasing. Now, at this height of science, the study of "man" is at the forefront. This has been reflected in the linguistics of the world for the last quarter of a century.

Psycholinguistics is the newest branch of science, unlike other branches of linguistics. The main subject of study is the structure and functions of human speech mechanisms. The science of psycholinguistics, like sociolinguistics, has just joined linguistics, the direction of experimental linguistics. Today, it is widely used in the fields of engineering, aviation, space psychology and in the treatment of various psychological diseases with speech defects, aphasiology, sign language therapy, psychiatry. In addition, at present, the methods of this field of psycholinguistics are also used in mastering foreign languages for people.

We consider the science of psycholinguistics as a field that studies language and mind. According to the anthropospecific paradigm, the main object of study of psycholinguistics is also man. Since the human thinking system is an abstract concept, it can only be spent externally based on language. The parallel study of a person's language through his thinking system, this is the main task assigned to the field of science. However, the research methodology of psycholinguistic science is well developed. Currently, there are theoretical and practical methods of analysis, comparison, compilation, comparison, semantic differentiation, associative modeling, linguistic experiment, observation, etc. This is the result of the effective interweaving of psychology and linguistics, because psychological science is a branch of science that has been studied and formed since antiquity because of the teachings of the human soul. But the sphere of psycholinguistics should not be divided into a psychological, linguistic approach, but should be considered from the point of view of the purpose of the newly formed sphere.

Although psycholinguistics is a new branch of linguistics, the origins of its theoretical foundations date back to the beginning of the twentieth century. However, the American science of psycholinguistics began to take shape in 1953 in Bloomington, USA. Because in 1953, the first large seminar was held under the influence of American psychologists D. Carroll, C. Osgood and the famous linguist and

ethnographer T. Shebek. This seminar was attended by linguists such as D.Greenberg, W. Leopold, F. Launsbury, S. Saporta, L. Newmark, E. Lenneberg, E.Uhlenbeck, D. Lotz, D. Casagrande and famous psychologists such as K. Wilson, D. Walker, S. Erwin, G. Fairbanks, D. Jenkins. At the same time, the channel of psychological science and linguistics converged, and the research problems of both sides were solved together. As a result of the discussion seminar, which lasted two months, under the leadership of C. Osgood and T. Shebek, the book "Psycholinguistics. A survey of theory and research problems book has been published in 1954. The term "Psycholinguistics" was also formed together with this work [1, p. 27].

American professor Dan Slobin in his 1972 scientific work "Psycholinguistics: Chomsky and Psychology" reveals the relationship between grammar and psychology. They say that the common content of these two areas is the effective assimilation of the correct use and use of the structure of human language. The fact that the work of Professor D. Slobin occupies a special place in history is associated with his study of the development of the child's language. The child, whose linguistic consciousness is now being formed, delves into the peculiarities of the grammar of his language. Considered the possibilities of correct formation of phonology in children. The works of the American scientist were translated into Russian in 1976 and published under the direction of Doctor of philological Sciences A. A. Leontiev [2, p.61].

French scientist, psychologist Paul Fresse wrote a scientific work "Problemes des psycholinguistique" (P. Fraisse). The scientist studied dialectical relations in language. The field of psycholinguistics concludes that it is necessary to study the mutual participation of our communicative, expressive needs and the linguistic elements that are selected to satisfy it [3, p. 62].

Romanian psychologist Tatiana Slama-Kazaku wrote a scientific paper "Relatile dintre gindire si limbaj in ontogeneza (3-7 ani)". The scientist's research work was carried out around three main questions. The first is the development of the child's speech function. The second is the problem of semantics. The third is the language of labor. He explains the content of the science of psycholinguistics related to communication. The study of the influence of the process of exchanging information with each other by people in verbal communication on that information shows that psycholinguistics is a research area [4, p. 71].

This new branch of linguistics was also studied by Kazakh scientists. N.Kurman and A. Rakhmatullayeva, who studied the psycholinguistic methods found in the works of K. Zhubanov, compare the definitions and conclusions given to psycholinguistics in Kazakh linguistics in their works. Scientist G. Madiyeva points to psycholinguistics as the science of speech activity and its complex modeling. It is explained by the fact that psychological phenomena such as human intuition, feelings, perception, etc. are directly involved in the process of speech. In the process of communicating in a spoken form or in a written form, people, expressing a certain concept, also show their own inner attitude to it [5, p. 15]. According to G. Madiyeva, in addition to thoughts, language expresses the inner feeling, the soul. N. Kurman and A. Rakhmatullaeva give the following examples of this. For example: units in the composition of such synonymous series as pervert, villain or handsome, beautiful are distinguished from each other by their lexical meaning and emotional tone. Even if our sentences are informative, interrogative, exclamation, or ordered for the purpose of pronunciation, they have different effects on the inner world and individual psychology of people [6, p. 15].

In the 1998 "Linguistic Explanatory Dictionary" of A. Salkynbay and E.Abakan, psycholinguistics is indicated as a branch of science that studies human speech processes and checks speech activity through psychological experiments [7, p. 169]. In the dictionary of linguistics, published in the same year under the direction of E. Suleimenova, the field of psycholinguistics is indicated as a science that studies the process of human speech in connection with mental processes. However, the exception here is also the consideration of the relevance of said processes to the language system. We should not forget the importance of psycholinguistics not only in theoretical form, but also in its applied aspect [8, p. 303].

G. Kaliev in his scientific publication "Psycholinguistics - a science that studies the process of creation and perception of speech" gives that a person, creating a psychophysiological model of speech function, tests it with the help of psychological experiments. Therefore, psycholinguistics is a branch of science that has developed in the course of understanding the theoretical level of problems that are manifested at the practical level of the speech process [9, p. 257].

A research method actively developed in the study of the mental phenomena of a person, in which the surrounding reality is actively working in the process of recognizing, perceiving the world and communicating it with the help of language, is the method of associative research. The concept of association originated in psychological science and was raised to the level of a comprehensive research method. Today it is used in new areas of linguistics, such as psycholinguistics, cognitive linguistics.

Today, in the science of psycholinguistics, various associative research methods are widely used. The most mature method for studying the psycholinguistic nature of words is the associative test. In practice, this method is used by American psychologists H. Kent, A.J. Rozanov who first used it and became the author [10, p. 31].

The associative research method is increasingly used in domestic and foreign psycholinguistics. Initially, this method was used only in the study of the problem of consciousness in psychology. Today, its content is widely used due to its simplicity and efficiency in use. It is used in the study of trends in the reflection of language norms in psycholinguistics, in the study of stereotypes of mass consciousness in social psychology, in the diagnosis of memory traces of affective individual significance in psychodiagnostics and in the study of individual features of thinking in differential psychology.

Association means "union" in Latin. Association is the interconnection, fusion of two separate cognitions-concepts. It is carried out with the help of the ability to feel, think, understand, imagine. Researchers of this concept are said to have existed since the time of Plato and Aristotle. However, as a scientific name, J. Locke was founded in the seventeenth century. And associative practice in linguistics is associated with the name of the Swedish psychologist Y. Gustav. Personal analytical psychology was developed by these K. Gustav and Z. Freud in 1906-1913. As a result of several years of experience, it was proved that collective intuition plays a responsible role in the human psyche. Collective intuition is an instinct inherited from the ancestors of this person, which is the content of an ancient archetype. As a result of their experiments, this conclusion was made K.Yu. Gustav and Z. Freud [11, p. 140].

In science, three types of associative experience are indicated:

1. Free associative practice. The participant in the experiment responds with the first word that comes to mind-his reaction. There is no limit to the content of the answer.

2. Directed associative practice. In this form of practice, the researcher can set certain restrictions, additional requirements for the content of the answer. Here, according to the content of the experiment, for example, an informant must respond with lexemes, words or phrases specific to a particular semantic or grammatical group. For example, in associative practice, the informant is asked to respond to given stimulus words only with adjective word reactions. The most commonly used type of directed associative experience was invented by D. Osgood. His experience is semantically differential. This is because he wrote reaction words that are semantically opposite to stimulus words. For example, strong – weak, evil – kind, etc.

3. Chain associative experience. This type of practice is carried out in most cases in oral form. An informant must say several associative concepts over a certain period of time to a given stimulus concept. This is the reason why it is called chain. For example, the informant is asked to say ten different associative concepts for 20 seconds per stimulus word [12, p. 140].

These associative experiences should be analyzed from a linguistic point of view, as well as from a mental, psycholinguistic point of view. It is necessary to classify the answer given by the informant into grammatical, semantic groups. According to the results, language analysis is carried out. A general psycholinguistic analysis is carried out, summarizing the answers of several informants. From a psycholinguistic point of view, the most important thing in associative practice is to analyze the answer given by people around the question of why. The word reaction of a person is associated with his original consciousness, national identity, history, modern existence, etc. If the reaction word of a multiparticle of an informant turns out to be the same, the same word becomes an "associative norm".

V. P. Serkin noted the advantages of associative practice, ease of conduct, ease of use in any environment, flexibility in working in groups, etc. And its irrational points include the fact that the word is semantically earlier, the phonetic structure is taken into account. This is because people use this experience to learn associations about different concepts, that is, concepts in a short, concrete form. People's ideas about the world around them do not necessarily have to be full-fledged, grammatically correct lexical units. This is also reflected in the effectiveness of associative practice.

Associative practice is used in most cases in a psychotherapeutic experiment. Psychotherapists promote the social significance of associative practice. In addition, it shows several reasons for the use of associative practice:

- 1) to study vocabulary and word relationships;
- 2) to evaluate the products we consume (e.g. perfume, household goods, clothing, advertising, etc.);
- 3) for the development of a person's associative memory and the ability to think creatively;
- 4) for use as a methodological approach in the preparation of comments and texts [13, p. 141].

Associative practice, although it has been around for some time, does not have clear mathematical dimensions. This makes it difficult to use the associative experimental method both formally and content. In this regard, V.P. Serkin in his practice considered ways to solve the listed difficulties and proposed the necessary mathematical criteria.

At the moment, the vocabulary of each person in a constant average value reaches ten thousand. And the association is only actualized from the active vocabulary in human memory. It can be about a thousand words. In some cases, if a person has leg associations, he will reach a vocabulary of less than a thousand words. However, Z. Freud says that a person does not have leg associations. This is an intuitively correct statement. According to this, in Aristotle's work, the association is classified into three classical types. They are:

- 1) association focused on time and space;
- 2) association by analogy with the concept;
- 3) the opposite semantic association.

The classical division of Aristotle can be classified into substantive and form groups as follows:

- paradigmatic associations (for example, meat ball-steak);
- syntagmatic associations (for example, fish-catch);
- semantic associations (for example, subject experience or context of a situation);
- conceptual associations (for example, a machine gun (Russian machine tool, material processing machine), weapons, payment acceptance device, slot machines, etc.);
- lexical associations (for example, ripe apple, sharp knife, male and female);
- fractional-integer, integer – fractional associations (for example, wheel-machine, beast-tigers);
- causal associations (for example, a snowstorm – the road is closed).

Scientist I. Sechenov said: "All mental acts develop along the reflex path". The essence of all conscious movements caused by this act, usually considered voluntary, began to be clearly visible. From this it follows a clear decision that at the heart of voluntary movements is irritation of the sensory nerves. At the same time, it was also found that sensory excitability is not observed from voluntary movements. The scientist interprets the opinion of I. Sechenov in three types:

1) Associations of vague content, such as vision and hearing, are mixed with associations of vague content. Fuzzy associations include the sense of muscle, sense of smell, etc. We can say that the second is weaker or less noticeable than the association of the first type. The fact of its existence reaches the human mind, even if it returns to memory for a moment. This is followed by a combination of visual and auditory associations. These are difficult to understand. Therefore, he explains with the following example. For example, he says: "I do physiology most of the time during the day, and in the evening I lie down before going to bed and think about politics. So, when I get tired, I think about the emperor of China. And now sometimes there are days when I get tired or just lie down, and the emperor of China comes to my mind". All this is associated with the result of thoughts that remain in memory when a person feels a touch through the muscles.

2) Sometimes there are situations when thoughts that are not logically related to a person are also associated. It is necessary that the series of thoughts that arise at such a moment become incomprehensible to a person. But even those incomprehensible, unrelated thoughts are motivated by thoughts that have a logical connection.

3) Sometimes a series of interconnected thoughts linger in the mind for a long time. At such a moment, a person himself is not sure what prompted all these thoughts. Although in most cases a person is self-accountable, the influence of the external situation remains noticeable. I.P. Pavlov noticed "the first concepts that manifest the true world are associations, from the sum of which a system is formed, from which a gestalt is organized. Therefore, he concludes that "after the formation of the association, it turns out that the rest (stereotype, gestalt) arises, and not vice versa" [14, p. 89].

The first Kazakh scientist who studied psychology Zh. Aimaityuly also supported the theme "Association". He called the association "bern's law", "law of association".

The law of association is divided into two types as follows:

- 1) law of mutual cooperation;
- 2) the law of similarity.

M. Zhumabayev, who studied pedagogical science, gives association with the concept of "binding". This is explained by the Association of descriptions of the reason for the name. There are so many descriptions around us. No matter how many of them there are, we tie the descriptions in bundles and throw them to the ends of our souls so that we can distinguish them from each other without confusing them. If you only need one image inside a bundle, you bring the images that are in that bundle. This means

that although you need a single description, it also includes images that are linked together in a collection. The scientist calls this "descriptive association", but he says that he does not always tie the descriptions to each other inappropriately, because indicates that there are two conditional paths of association. They are:

- 1) association of intimacy;
- 2) association of the family [15, p. 85].

An association of intimacy is an event that occurs simultaneously side by side, one after the other, that is, the fact that the affinities are one bundle. When you remember something during the association of intimacy, you remember the events or concepts that happened in parallel at the same time. Such an association itself is divided by a scientist into two types:

- 1) association of unity in place;
- 2) association of unity in time [15, p. 86].

The association of unity in a place is formed by sight, depending on the place. If we describe and remember an object that stands still, then other objects that stand around are spontaneously caught in our eyes and stored in our memory. This associative method is indicated by the scientist as effective in teaching young children. As the child teaches a letter in the alphabet, we draw a large picture of objects around it that are associated with this letter. This method works by itself when we learn the geographical map again in our memory. As we look at a country, city, natural places on the map, other side-by-side names around it catches the eye and are remembered by themselves.

The difference of the association of unity in time is the memorization of movements. When we remember an event at a moment, we follow the memory of the actions that took place at that moment. This type of association helps a lot when the child is memorizing poems, reading a work of art, and especially history. For example, when memorizing a poem, we use this type of association. Our memory will be used to saying one word after another in a series without stopping. Because in the process of automatic memorization of memory, the word of the poem is remembered in its own order, as if training your memory. Therefore, it is an association directly related to time.

By the association of heredity, when we describe something, the next thing in the family is described by itself, even if it is not at the same time, in the same place. The association of heredity also shows two types:

- 1) the association of similarity;
- 2) the association of resistance [15, p. 87].

The association of similarity is that when you describe something, you also describe something similar. For example, when we describe and talk about a person, we also remember another acquaintance who is like that person in character, behavior, appearance, etc. This is an extended learning method that is used in our educational system. When explaining the material to the child along with other similar material, this type of association works well in the child and is better remembered.

Resistance association is the association of something that, as the name suggests, is semantically opposite to the same thing. The reason this is attributed to the association of heredity is that when we describe the opposite of everything, we do not diverge in terms of heredity. For example, when describing winter, we do not understand the opposite cow. Here the seeds diverge, and there is no connection. For example, when describing winter – the description of summer, when describing white – the description of black, rich – poor, etc. When teaching children, learning a new language, the effectiveness of this resistance association is high [16, p. 85-88].

Along with the concept of association, a concept that is closely related is the associative field. Associative field is united language units, depending on the commonality of the form of content. It is interpreted as the union of associative words around the actual words. Researcher H. Ordabekova cites that linguistic analysis of the results of associative experience is the basis for creating a perceptual-cognitive-affective database of personality [17, p. 39].

According to the psycholinguistic direction, it is possible to determine how a person perceives a certain concept, how he uses his information in consciousness in the expression of that concept. A person can express the external world, the world perceived from the outside through his associative perceptual abilities (through the senses) and automatically express through stereotypes that have turned from frequent repetition into habitual understanding. And each people or nation, social group or each person has their own self-expression associations, stereotypes. In psycholinguistics, it is also possible to clarify the affective language units, emotional concepts, and expressive features of the language of each nation, based on the comparative method. Each nation can clearly demonstrate to itself the level of the human psyche in the culture of speech, communication in general, the mental abilities of a person, character

traits (restraint, fussiness, pride, envy), etc. Association means the latin word "associatio-union". Association is the relationship between two different cognitions (realized through the abilities to feel, understand, think, imagine). Although this concept originated in the time of Platon and Aristotle, the scientific name association was introduced by D. Locke in the eighteenth century.

Association is a connection between a known object or phenomenon based on individual subjective experience. From this experience, the subject's nourished culture and life experience are traced. There is also the concept of an associative field, closely related to this concept of association. Associative field-a set of language units, conceptual, material and functional similarity of designative phenomena, united according to the commonality of content. It is understood as the union of associative words, topical words around them [18, p.183]. The collection of associative words in various informants reflects the central core of the associative field. For example, in European culture, wearing black clothes, pulling a black scarf is recognized as an unpleasant, fatal color. And in Japanese and Indian culture, the mourning color symbolizing death is white. In China, white color is a symbol of death and purity. According to the custom of the Kazakh people, putting a black flag on the shanyrak is a symbol of the house where the dead came from. White/black colors here serve as an intercultural unit that has an associative meaning.

Associative practice is one of the most effective ways to study the motivation of a person in cognition of the world, according to the introduction of K.G. Jung and M. Wertheimer in the twentieth century. A simple type of experiment: to know the set of words that the person undergoing the experiment often used to represent a certain true world. To know the frequency of homogeneous associations, to know the influence and intention of a person to the true world.

In psycholinguistics, associative processes are considered within a narrow framework. It is engaged only in the study of word association or verbal association [19]. In the process of identifying verbal associations, associative practice is carried out. This practice is carried out through the principle of instruction "answer with the first word that comes to mind". The results and reactions that a person does not think about what to say or how to answer will be the basis of observation.

The main goal of the associative experiment in psycholinguistics is to solve the question of whether the truth can choose the units and phrases of the language used in the representation of the world in accordance with the appropriate content, arrange them according to a certain stylistic and general normative system. According to psycholinguistics experts, to identify an association, an influencer gives a person different words, images, colors and, in response, observes their interpretation, that is, observes the reaction. Therefore, associative practice is conducted according to the "stimulus – reaction" system.

Knowing the true world, a person retains in memory its meaningful and generalized meaningful features through the details of that world. Hence the general and individual (individual) types of associations. A generalized association is expressed because of a word-stimulus, which is formed through the associative field, which is most concentrated in its central core. For example, white is recognized in almost every country as a festive, blessed, pleasant color. In Europe, wedding attire is marked by a white dress, and for the Kazakh people, white color is understood as abundance, prosperity, that is, milk and products of animals – wealth. In addition, white is also used to convey the concept of fidelity, chastity. In the United States, white symbolizes "purity", in France-neutrality, in Egypt-joy. The bird itself, which is recognized as a symbol of love, is also imagined as a swan-white bird. The linguistic expression of these concepts is expressed in the following phrases: a white faithful heart (loyalty), white milk of a mother (kindness), like a white sheet of paper (chastity), like a swan on a moon (beauty), white wrist, white food (beauty). These quoted sequences are the only positive associative value of the white color. A generalized association is expressed through impressions based on universal cognition.

D. Gartley, T. Brown, D. Mill and other scientists emphasize that association is a mental (present in consciousness, thoughts) mechanism, the main feature of association is that associative cognition arises from the connection between the experience gained by a person in life and feelings, perceptions.

Today, the concept of association as a complex concept from the field of psychology has gained application in other fields of science. For example, in the fields of psycholinguistics, cognitive linguistics, a new direction in linguistics, it was found that the function of association in psychology is especially noticeable when addressing the problems of mental phenomena of a person in perceiving and communicating the true world through language [20, p. 224]. Associations of feeling, formed and developed based on a person's life and upbringing, develop into an association of imagination/understanding, the last association, a kind of complex association. Everything, as it accumulates, depends on the outside world according to the causal chain, is identified with it. The result of this is a system of thought that is interconnected in the process of reasoning, in the process of accumulating thoughts. Therefore, the laws of association are combined with the ability to want and

feel. In the process of such cognition, the emotional state, the level of strength, general personality traits and behavior of a person necessarily begin to manifest. As the reflex activity of the human brain in the process of cognition of the outside world takes place, the circle of associations expands and becomes chain. If the stock of associations given to the world of the same truth is abundant, they are formed into associative series and chains.

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REFLECTION OF WOMEN'S RIGHTS IN KAZAKH DISCOURSE

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KAZAK DEYİŞMELERINE KADIN HAKLARININ YANSIMASI

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Deyişmelerin dikkate değer özelliklerinden biri de ait olduğu dönemin toplumsal meseleleri ile ilgili bilgileri içermesidir. İnsan haklarının çiğnenmesi, sosyal eşitsizlik durumu kimi deyişmelerin konusunu oluşturmuştur. Bu durum çoğunlukla Kazak, Kırgız, Karakalpak Türklerine ait olan deyişmelerde kızların başlık parası karşılığında evlendirilmesi şeklinde görülmektedir. Uzun süre feodalite ve derebeylik sistemi altında yaşayan Orta Asya Türk Topluluklarında maddiyatın kız alıp vermede mühim bir yeri olmuştur. Bir damat adayının kız alması için maddi imkânlarının evi geçindirmeye uygun olması talep edilmiştir. Damat eğer şartları sağlayamazsa kendisine kız verilmemektedir. Maddiyatın daha rahat bir yaşam için yarattığı olanaklar, genç kızların aileleri tarafından varlıklı ailelere, yaşlı zenginlere başlık parası karşılığında ikinci, üçüncü eş olarak satılmasına zemin hazırlamıştır. Evlenecek kişinin yaşının gelin adayından çok büyük veya aksine çok küçük olduğu, ya da zihinsel, bedensel engelli olduğu durumlar 19. yy. ile 20. yy. başına ait olan deyişmelerde bolca boy göstermektedir. Böylece kızlar kendi denklemlerine kavuşamadıklarından yakınlara ailelerine sitem etmişlerdir. Bu durumu yaşayan akın kızlar da bunu aytılarda sık sık dile getirirler, içlerindeki acıları yansıtır. 37 numaralı Birjan ile Sara'nın aytısında "İyi insanı görmek için" demişler kocanı çağır, yüzünü bir görelim diye alay eden Birjan'a Sara kendi mutsuz ruh hâlini şu şekilde anlatır:

Birjan:

*"Jaqsını körmek üşin" degen Sara,
Öziñ tügil el qamın jegen Sara,
Mırzañdı it Jienqul şapşañ şaqırt,
Uyalıp bögelesiñ, nege Sara?"*

Sara:

*"Arğınğa jol bermegen kayran tilim
Küni öşip qor bop ötti-au qızıl gülüm.
Sizderden uyalğannan ündemeuşi em
Esekke qosaqtaulı ötti-au künim." (KÖA, 2014, s. 252).*

Akın Sara, yukarıdaki dördlüklerde "Esekke qosaqtaulı ötti-au künim" diyerek eşeğe benzettiği kocasını el aleme göstermeye utandığını dile getirir. Altay'ın meşhur akınıyla deyişmeye çekinmediğinden ancak Jiyenqul'u yani kocasını anlatmaya gelince sesinin çıkmadığından üzülerek bahseder.

38 numaralı Omarkul'un Tabiya ile aytısı şaka ile başlayıp kadının mal-mülk karşılığında sevmediği kişiye satılması, sosyal eşitsizlik durumu, gelin gittiği ailede hor görülüp aşağılanması konularını ele alır. Kadınları bu hâle sokan eski örf-âdetler şiddetle kınanır. Aşağıdaki şiirde akın Tabiya'nın şikâyet, sitem, üzüntü ve pişmanlık duyguları görülmektedir:

*"Ustatıp kazan, oşak, ayak-tabak
Sorlı kız böten elge kim bop barad.
Keşe kız, bugün katın, nesi kızık
Koysaşı jaratkanşa jaratpay-ak." (A, 1965, ss.361).*

Kazaklarda özellikle 1920-1940 yılları arasında yapılan aytılar kadın-erkek eşitsizliği, başlık parası konuları üzerine yapılmıştır. 39 numaralı Aksulu ile Kenşimbay'ın aytısında Kenşimbay kızın güzelliğinden bahseder ve evleneceği kocasının Aksulu'dan yaşça küçük olduğunu şöyle anlatır:

*"Bolğanı küyeui jas jalğız mini
Jarımjan qızdın könili osı küni.
Jane de tüsi qara, erni jırıq
Aytıssan bir tosa gör aytıp munı." (A, 1965, ss.328).*

40 numaralı Karakalpak kadın akını Altın ile Kazak Seydeli arasında gerçekleşen aytısta Seydeli, "Rengin boz imiş, başın kel olmasın" diye kendisiyle alay eden Altın'ın anne- babasının kel olduğunu öne sürer. Ayrıca akın kızın nişanlandığı kocasının kel ve ihtiyar olduğunu yüzüne vurarak şu şekilde iğneler:

Altın:

"Eveden katar uşkan kaz bolmasın,
Kudaniñ kısı cetip, caz bolmasın.
Kazaktıñ tüsi bozğılt körinedi,
Kuday-av, osı adam taz bolmasın!"

Seydeli:

"Üyiñde ekeñ de taz, şeşeñ de taz,
Bayğus-av, nemenege bolasın mez.
Küyeviñ atastırğan keri Ceken,
Otiñniñ bası tolğan öreñ de taz." (KE, 2004, ss. 306-310).

Seydeli böyle deyince, Altın karşılık veremedi susup kalır ve Seydeli kazanmış sayılır.

Yukarıdaki örneklerde görüldüğü gibi, bu tür deyişmelerde toplumda ikinci plana itilip, vuslata erişemeyen ve başlık parasının kurbanı olan kızların yaşadığı çaresizlikler anlatılmakta, toplumdaki sosyal adaletsizlik ve eşitsizlikler, eski örf-âdetlerin olumsuz yönleri deyişmelerde etkin biçimde dile getirilmektedir.

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Technical sciences

THE DETERMINATION OF ORGANIZATIONAL AND TECHNOLOGICAL STRUCTURES AND CLASSIFICATION OF METHODS FOR INSTALLATION OF BUILDING STRUCTURES

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ВИЗНАЧЕННЯ ОРГАНІЗАЦІЙНО-ТЕХНОЛОГІЧНИХ СТРУКТУР ТА КЛАСИФІКАЦІЙ МЕТОДІВ МОНТАЖУ БУДІВЕЛЬНИХ КОНСТРУКЦІЙ

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Abstracts

The article presents options for formulating the main components of the organizational and technological structure and classification of methods for installing building structures. Characteristic differences of individual installation methods are disclosed. The directions of effective use of the database of properties of numerous installation methods at the initial phase of architectural and design work are indicated when the concept of the future building and the structural and technological solution for the construction of the construction object are worked out.

Анотація

В статті представлено варіанти формулювання основних складових організаційно-технологічної структури та класифікація методів монтажу будівельних конструкцій. Розкриті характерні відмінності окремих методів монтажу. Вказані напрямки ефективного використання бази даних властивостей багаточисельних монтажних методів ще на початковій фазі виконання архітектурно-проектних робіт при випрацюванні концепту майбутньої будівлі та конструктивно-технологічного рішення по зведенню об'єкта будівництва.

Keywords: *erection of large-span coatings, lifting modules, methods of pulling up and pushing out of constructions*

Ключові слова: *зведення великопрогонових покриттів, підйомні модулів, методи підтягування та виштовхування конструкцій*

Актуальність проблеми

Період з 50-х років минулого століття до сьогодення характеризується сталим збільшенням кількості побудованих великопрогонових залізобетонних та металевих об'єктів промислового та громадського призначення. Концепція утворення великопрогонових покриттів (ВП), як складових великорозмірних будівель (ВБ), поступово змінюється від монтажних операцій по переміщенню окремих конструкцій покриттів кранами на проектні висоти до зведення блоків габаритних покриттів індустріальними методами. Характерною ознакою індустріальних технологій в будівельній галузі стають процеси, передбачаючи попереднє укрупнення конструктивно-технологічних блоків ВП на стендах з використанням кранів та наступне переміщення просторових покрівельних блоків на проектні висоти з залученням в монтажні процеси гідравлічних підйомників. Систематизація даних по висвітленню технологічних процесів, характеризуючих перебіг будівництва різноманітних об'єктів за період с 50-х років минулого сторіччя до сьогодення та відбір формулювань, які найбільш коректні в висвітленні організаційно-технологічних структур та можливих методів монтажу будівельних конструкцій є актуальною задачею досліджень.

Аналіз публікацій

Технологічні особливості зведення залізобетонних та металевих ВБ, в першу чергу ВП, побудованих в період з 1950 по 2024 роки, знаходять своє відображення в багаточисельних працях вчених, проєктантів та виробників. Серед українських вчених найбільший вклад в розробку організаційно-технологічних структур та класифікацій методів монтажу будівельних конструкцій зробили: Черненко В.К. [1], Гребінника Р.А. [2], Назаренко В.Ф.[3] , Швіденко В.І.[4], Федоренко П.П.[5], Колеснік Л.А.[6], Тонкачєєв Г.М. та Осипов О.Ф. [7]. Серед закордонних вчених великий внесок в розробку науково-теоретичних рішень по розробці технологічної концепції зведення залізобетонних і металевих споруд зробили Зіолько Ж. [8], Ровінский Л. [9] та Ругл Г. [10].

Мета роботи

На закладі аналізу відомих формулювань організаційно-технологічних структур та класифікацій методів монтажу будівельних конструкцій визначити найбільш придатні структури та класифікації, дозволяючи враховувати технологічні особливості відомих методів монтажу ще на стадії архітектурно-конструкторського проєктування та розробці технологічних карт зведення, в першу чергу великопрогонових, об'єктів.

Виклад основного матеріалу досліджень

Визначення та формулювання організаційно-технологічної структури та класифікації методів монтажу будівельних конструкцій найбільш виразно відображене в наукових роботах Гребінника Р.А, Ровінського Л., Черненка В.К.

Заслужують на увагу визначення способів підйому та переміщення будівельних конструкцій, які запровадив Ровінський Л. При розгляданні варіантів зведення інтегрованих покрівельних конструкцій були сформульовані два основних способи, якими переміщуються конструкції в зоні монтажу, в саме:

- піднімання (переміщення) підтягуванням, при якому монтажний елемент розміщений під механізмом підйому і виконує переміщення в трьох вимірному просторі в напрямку механізму, який виконуючого підйом (Рис. 1, а);
- піднімання (переміщення) виштовхуванням, при якому монтуємий елемент переміщується в напрямку від механізму, задіяного в виштовхуванні (Рис. 1, б).

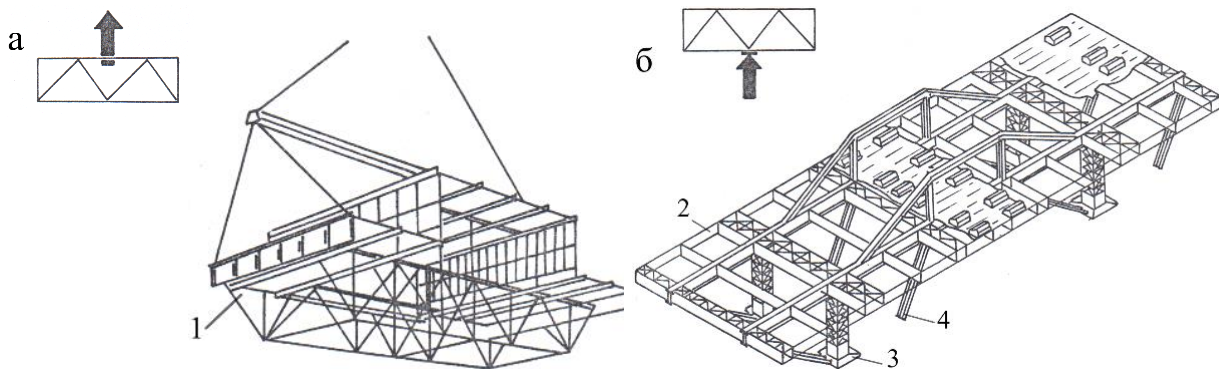


Рис. 1 Класифікація способів переміщення конструкцій Ровінського Л. :

а – піднімання (переміщення) підтягуванням, б – переміщення виштовхуванням, 1 – укрупнений покрівельний блок, 2 – конструктивно-технологічний блок покриття, 3 – підрошувальний стовп підйомника, 4 – проєктна колона

Гребінник Р.А. формулює монтаж конструкцій, як комплексний процес зведення будівель і споруд з фрагментів чи цілих конструкцій, який складається з транспортних, підготовчих і монтажних робіт. Класифікація складових монтажного процесу згідно Гребінника Р.А. відображена на Рис.2.

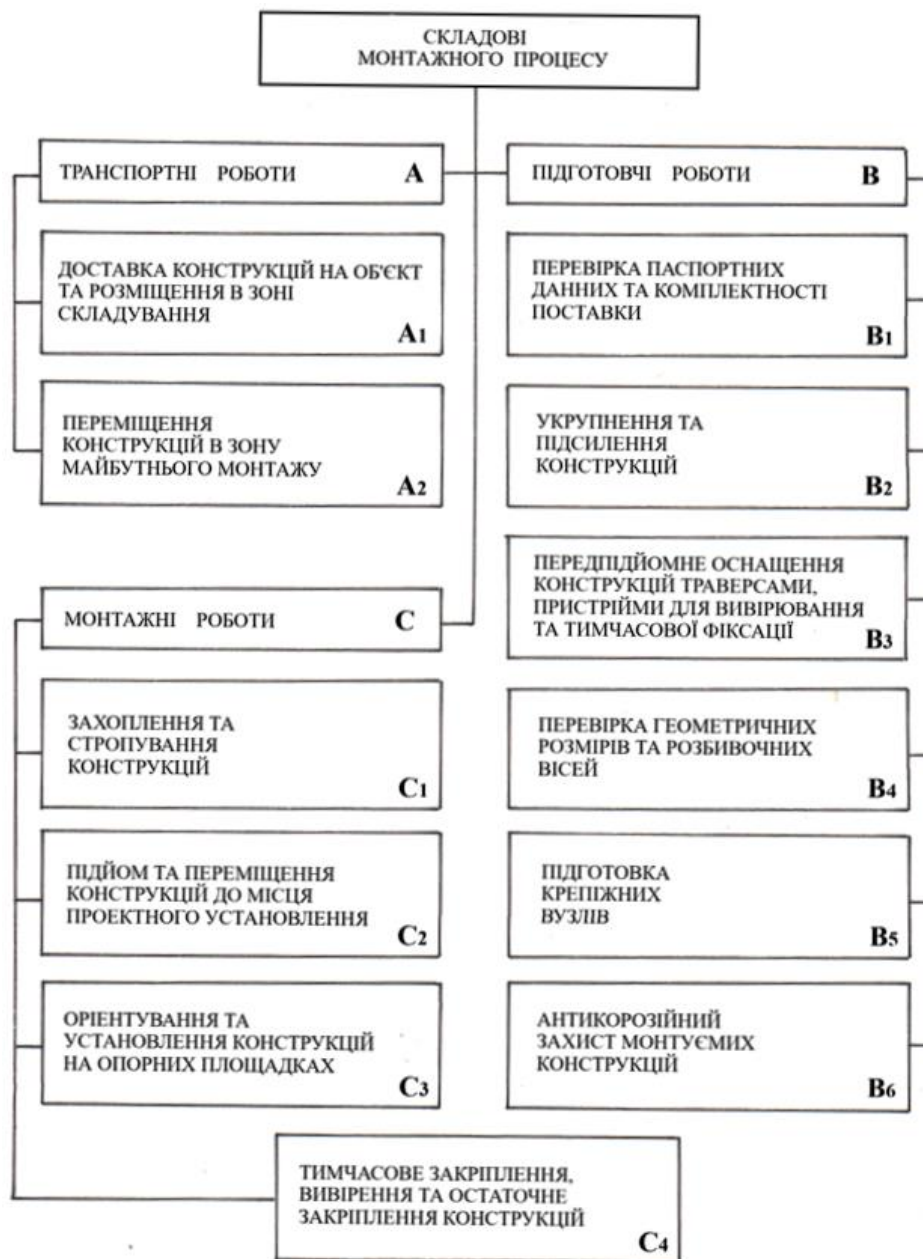


Рис.2 Класифікація складових монтажного процесу згідно Гребінника Р.А. (опрацювання автора)

Монтажний процес (МП) може бути представлений в сукупності складових А, В, С

$$MM = \{A, B, C\} \quad (1)$$

де А – транспортні роботи, до переліку яких входять доставка конструкцій на будівельний майданчик (А1), складування та переміщення конструкцій в зону майбутнього монтажу (А2);

В - підготовчі роботи, це перевірка паспортних даних та комплектації конструкцій, які поступили на будівельний майданчик (В1), укрупнення та підсилення конструктивних елементів (В2), оснащення конструкцій траверсами та пристрійми для вивірювання та тимчасової фіксації (В3), перевірка геометричних розмірів та розбивочних вісей (В4), перевірка вузлів кріплення, антикорозійний захист поверхонь конструкцій (В5);

С - монтажні роботи, захоплення та стропування конструкцій (С1), первинний підйом та переміщення конструкцій до місця проектного установлення (С2), орієнтування та установлення конструктивних елементів на опорних площадках (С3), тимчасове закріплення, вивірення та остаточне закріплення конструкцій в проектному положенні (С4).

Найбільш детально організаційно-технологічна структура (ОТС) будь-яких будівельних процесів і класифікація методів монтажу представлена в роботах Черненко В.К. Для отримання уявлення про загальну ОТС виконання різноманітних будівельних процесів, приводиться

визначення «технології процесу праці», яке базується на методі праці. До складу методу праці входять прийоми виконання відповідної операції, простого або комплексного процесу та виробничого потоку і демонструється порядок перетворення безлічі складових для досягнення поставленої мети. Відповідні операції, при цьому, виконуються за умови взаємодії засобів праці (виробництва) та предметів праці. Нарівні з ОТС визначеного процесу будівництва виділяється структура методу її виконання, яка розкриває безпосередній процес і може бути представлена у вигляді моделі цього процесу. Завдяки структурі методу виконання визначеного процесу будівництва, в відповідних наукових і проектних напрацюваннях, спочатку формується багатоваріантна множина можливих рішень. На наступному етапі з множини можливих рішень, з урахуванням вхідних проектних завдань та технічних умов, виділяються найбільш раціональні проектні рішення з переважними техніко-економічними показниками, які і рекомендуються для впровадження в будівельні процеси. Загальний ОТС методу виконання будь-якого процесу будівництва, в т.ч. і монтажного, притаманні чотири обов'язкові складові, а саме:

- 1) організація фронту робіт, послідовність (черговість) і режими виконання робіт, укрупнення деталей та виробів, подачі (переміщення) елементів;
- 2) механізація окремих операцій, цілого комплексу операцій і процесів;
- 3) виконання операцій, підготовка фронту робіт, приймання та складування матеріалів, деталей, конструктивних елементів, переміщення, укладання або встановлення, вивіряння, тимчасова та остаточна фіксація і закріплення виробів;
- 4) керування перебігом сукупності операцій, виконавцями, механізованими процесами та розвиток різноманітних виробничих процесів.

За умови відображення і розкриття структурою методу монтажу відповідної ОТС монтажного процесу, метод монтажу може бути представлений сукупністю складових і структурних елементів, характеризуючих організацію, механізацію, прийоми здійснення та керування монтажними операціями. Сам метод монтажу (ММ), при цьому, визначається взаємодією засобів виробництва з предметами праці, і являє собою чітке відображення основних шляхів перебігу процесу монтажу. ОТС методів монтажу конструкцій може бути представлена, як принципова сукупність складових множин O , M , P , K :

$$MM = \{O, M, P, K\} \quad (1.2)$$

де O – організація монтажу, M – механізація монтажу, P – прийоми виконання монтажних операцій, K – керування монтажними операціями. Кожна із базових складових методу монтажу формується з множини структурних елементів:

$$O = \{O_1, O_2, O_3, O_4\} \quad (1.3)$$

$$M = \{M_1, M_2, M_3, M_4\} \quad (1.4)$$

$$P = \{P_1, P_2, P_3, P_4, P_5, P_6\} \quad (1.5)$$

$$K = \{K_1, K_2\} \quad (1.6)$$

Найменування множин структурних елементів принципової сукупності складових « O », « M », « P », « K » відображене на загальній схемі організаційно-технологічної структури методу монтажу конструкцій (Рис. 3).

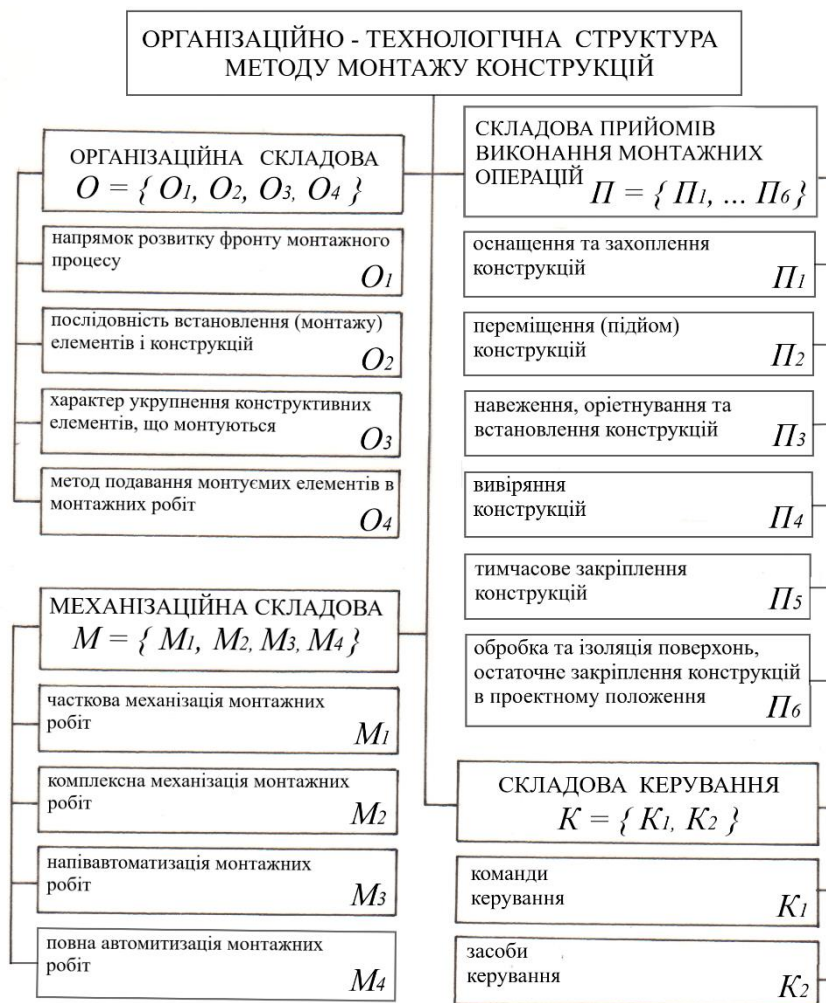


Рис. 3 Загальна схема ОТС методу монтажу конструкцій згідно Черненка В.К.
(опрацювання автора)

Для кожного структурного елементу відповідної складової ОТС методу монтажу, в свою чергу, характерна множина можливих рішень. Так, наприклад, для складової організації О:

$$O_1 = \{O_{11}, O_{12}, O_{13}, O_{14}, O_{15}\} \quad (1.7)$$

$$O_2 = \{O_{21}, O_{22}, O_{23}\} \quad (1.8)$$

$$O_3 = \{O_{31}, O_{32}, O_{33}, O_{34}, O_{15}\} \quad (1.9)$$

$$O_4 = \{O_{41}, O_{42}, O_{43}\} \quad (1.10)$$

Найменування множин можливих рішень $\{O_{11} \div O_{33}\}$ для структурних елементів $(O_1 \div O_4)$ організаційної складової «О» та множин можливих рішень для структурних елементів складових «М», «П» та «К» представлені на розгорнутій схемі організаційно-технологічної структури методу монтажу конструкцій (Рис. 4).

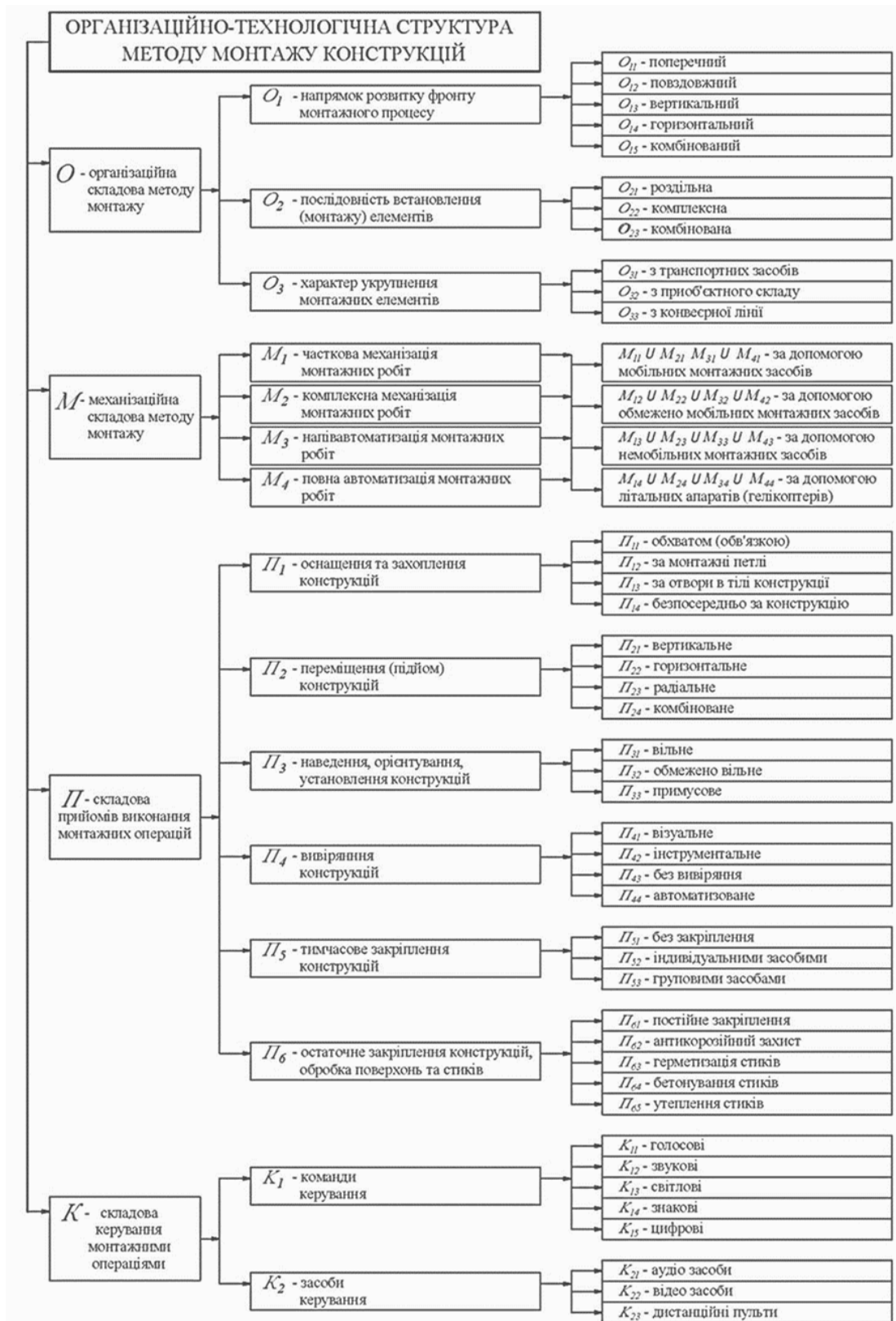


Рис. 4 Розгорнута схема ОТС методу монтажу конструкцій згідно Черненко В.К. (опрацювання автора)

Класифікаційне структурування ММ сформулювалось на закладі аналізу характеристик множин можливих рішень структурних елементів відповідних складових ОТС ММ та технологічних особливостей відповідних монтажних процесів, розкриваючих властивості і закономірності різноманітних варіантів зведення будівельних конструкцій. Зміна характеристик відповідних складових ОТС та технологічних особливостей ММ призводить до

утворення багатоваріантних комбінацій монтажного процесу. Для класифікаційного структурованого представлення можливих варіантів ММ були послідовно відібрані та детально сформульовані п'ять відмінних властивостей.

Перша відмінна властивість методів монтажу – це вид підйому (переміщення конструкцій). Визначаються два основних види підйому (переміщення) – вільний підйом, при якому матеріали та конструкції переміщуються підйомними механізмами в тривимірному просторі без обмежень, та примусовий підйом (переміщення), при якому переміщення конструкцій виконується по напрямних або з використанням системи шарнірів. Друга властивість – напрямок переміщення конструкцій. Акцептуються напрямки переміщення – горизонтальний, вертикальний, похилий, радіальний. Третя властивість – спосіб переміщення конструкцій. Визначаються способи - підтягуванням, виштовхуванням, переносом, поворотом і опусканням. Четверта властивість – спосіб формування конструкцій. Можливі варіанти: нарощування конструктивних елементів у вертикальній площині; приєднання конструктивних елементів у горизонтальній площині; переміщення та наступне приєднання однієї чи декількох конструкцій у вертикальній, горизонтальній чи похилій площині; підрошування конструктивних елементів та повнозбірних просторових конструкційних блоків; поворотом у вертикальній площині просторових фрагментів чи повністю зібраних конструкцій.

П'ята властивість - область застосування, яка охоплює всі архітектурно-конструктивні варіанти конструктивних рішень об'єктів призначення, де знаходять своє застосування ММ. Спільні властивості та ознаки, характерні для можливих варіантів ММ будівельних конструкцій, стали підґрунтям для діалектичного визначення та наукового формування шістьох основних груп ММ. Кожна з груп для ММ має, тільки їй притаманні, технологічні особливості. Так, група ММ1 – методи монтажу з використанням вільного підйому підтягуванням з нарощуванням конструкцій у вертикальній площині. Група ММ2 – методи монтажу з використанням вільного підйому підтягуванням з приєднанням конструкцій до раніш змонтованих елементів у горизонтальній площині.

ГРУПА МЕТОДІВ МОНТАЖУ	ВІДМІННІ ВЛАСТИВОСТІ МЕТОДІВ МОНТАЖУ				
	Вид підйому (переміщення) конструкцій	Напрямок переміщення конструкцій	Спосіб переміщення конструкцій	Спосіб монтажу конструкцій	Область застосування в будівельній галузі
ММ 1	Вільний	Вертикальний	Підтягування, перенос, поворот, опускання	Нарощування в вертикальному напрямку за умови $H : L > 3$	Зведення хмарочосів, блоків АСС, елеваторів, баштово - мачтових споруд
				Нарощування в вертикальному напрямку за умови $H : L < 3$	Зведення промислових та цивільних об'єктів з використанням всього арсеналу монтажних засобів
ММ 2	Вільний	Горизонтальний	Підтягування, перенос, поворот	Збирання в горизонтальному напрямку на подмоствах, стелажах, перекриттях	Укрупнення конструкцій, зведення одноповерхових та багатоповерхових об'єктів
				Збирання та приєднання в горизонтальному напрямку навісне та півнавісне	Зведення просторових покріттів (купола, склепіння), прогінних конструкцій мостів та інженерних споруд

Рис.5 Структурна класифікація груп ММ1 та ММ2 згідно Черненко В.К.
(опрацювання автора)

ММ першої та другої груп ще формулюють, як «Традиційні чи кранові методи монтажу». В підйомі конструктивних елементів, укрупнених конструкцій або конструктивно-технологічних блоків (великопрогонові просторові сегменти покріттів) задіяні мобільні пневмо- та гусиничні крани або обмежено мобільні баштові чи порталні крани.

Група ММ3 – методи монтажу з використанням примусового переміщення (підйому) підтягуванням конструкцій тільки по вертикальним напрямним. Група ММ4 - методи монтажу з використанням примусового вертикального переміщення виштовхуванням з підрошуванням елементів конструкцій.

ГРУПА МЕТОДІВ МОНТАЖУ	ВІДМІННІ ВЛАСТИВОСТІ МЕТОДІВ МОНТАЖУ				
	Вид підйому (переміщення) конструкцій	Напрямок переміщення конструкцій	Спосіб переміщення конструкцій	Спосіб монтажу конструкцій	Область застосування в будівельній галузі
ММ 3	Примусовий	Вертикальний	Виштовхування	Виштовхування по вертикальних напрямних штовхачами без переміщення монтажних засобів	Монтаж перекриттів багатоповерхових будівель, великогабаритних просторових конструкцій - структурні плити, купола, оболонки, складки.
				Виштовхування по вертикальних напрямних штовхачами з переміщенням засобів монтажу	Зведення великопрогонових конструктивно-технологічних блоків покриттів авіаційних ангарів, пароплаво- та машинобудівельних заводів.
				Виштовхування в вертикальному напрямку з використанням пневмопідйому	Будівництво цивільних об'єктів - спортивно-оздоровчі та рекреаційні центри, торговельно - розважальні і медичні комплекси, термінали аеропортів, морських та залізничних вокзалів.
			Підтягування	Підтягування по вертикальних напрямних без переміщення монтажних засобів	Монтаж поверхових блоків при зведенні багатоповерхових
				Підтягування по вертикальних напрямних з переміщенням монтажних засобів	
			Опускання	Послідовне опускання елементів конструкцій опалубки перекриття по мірі набуття бетоном розрахункової міцності	Монтаж резервуарів та інших споруд інженерного призначення
			Виштовхування	Виштовхування у вертикальному напрямку штовхачами підйомників, розміщеними під колонами чи на оголовках колон	Влаштування монолітних перекриттів при зведенні та реконструкції будівель
				Виштовхування у вертикальному напрямку штовхачами підйомників, розміщеними на фундаментах об'єкта	Підрошування колон при зведенні, попередньо укрупнених на стендах, великопрогонових покриттів
				Виштовхування у вертикальному напрямку штовхачами підйомників, розміщеними на землі чи на фундаментах об'єкту	Підрошування стін малогабаритними блоками чи панелями при зведенні багатоповерхових будівель
				Виштовхування у вертикальному напрямку штовхачами підйомників, розміщеними на землі	Підрошування каркасів при зведенні багатоповерхових цивільних та промислових будівель, споруд інженерного призначення
				Виштовхування у вертикальному напрямку штовхачами підйомників, розміщеними на землі	Підрошування просторових поверхових конструкцій при зведенні будівель із блок-кімнат
ММ 4	Примусовий	Вертикальний	Підтягування	Підтягування в вертикальному напрямку та утримання у висячому положенні конструкцій з наступною підбудовою просторових блоків	Підрошування просторових конструкційних блоків при зведенні баштово-щоглових споруд

Рис.6 Структурна класифікація груп ММ3 та ММ4 згідно Черненко В.К.
(опрацювання автора)

Група ММ5 - методи монтажу з використанням примусового переміщення підтягуванням конструкцій по горизонтальним або похилим напрямним. Група ММ6 – методи монтажу з використанням примусового переміщення підтягуванням чи виштовхуванням вертикальним поворотом навколо шарнірів

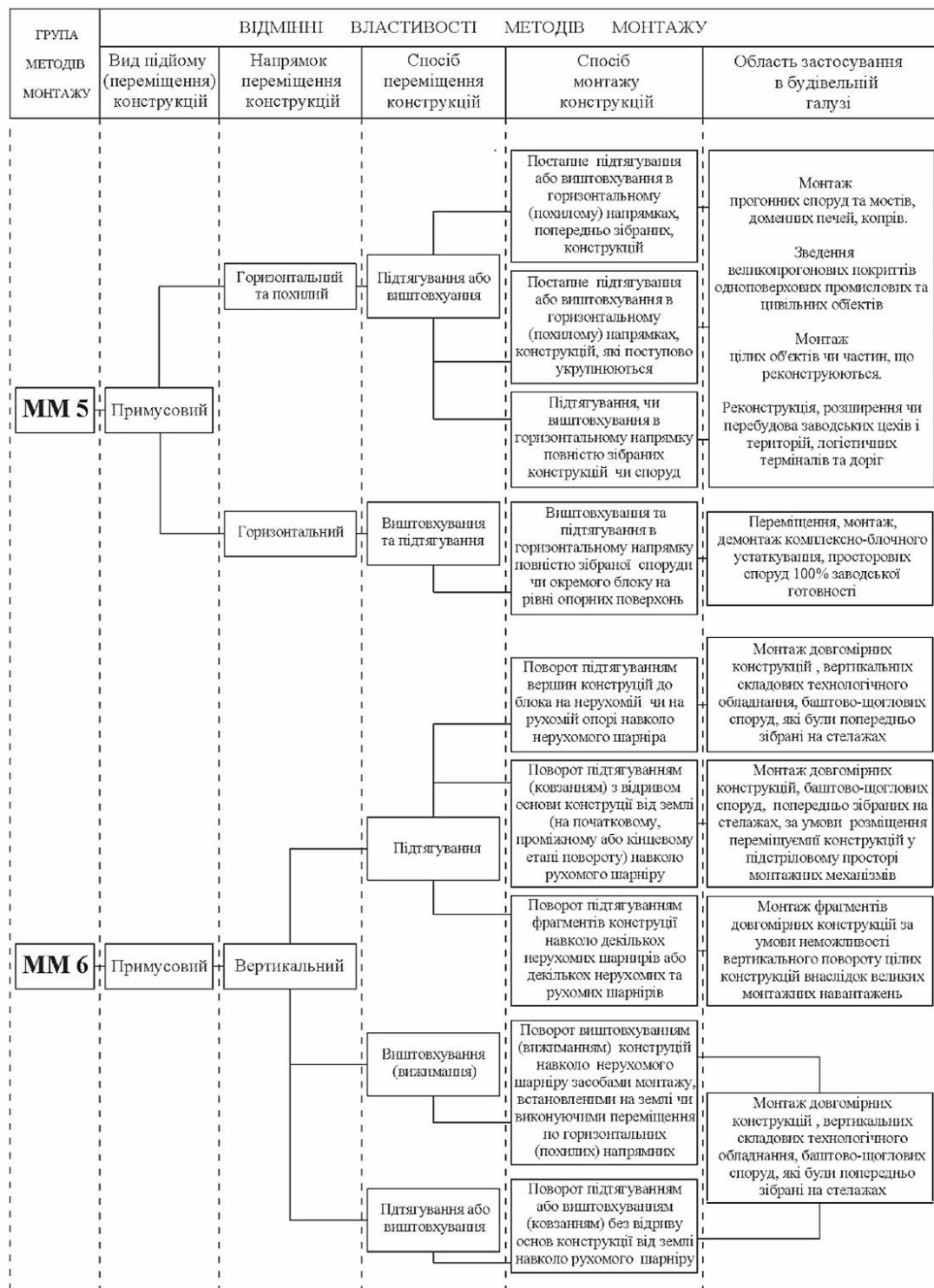


Рис.7 Структурна класифікація груп MM5 та MM6 згідно Черненко В.К.
(опрацювання автора)

Технологічний процес зведення будівель, зазвичай, складається з декількох монтажних процесів, які відносяться до різних груп MM. При цьому, кількість та взаємозв'язок між MM залежать від конструктивно-технічних особливостей об'єкта будівництва і умов виконання монтажних робіт. Серед переліку MM, використання яких передбачається при зведенні будівель і споруд, виділяється MM, який є, найскладнішим та найбільш трудомістким. Вибраний MM визначається, як основний, і на закладі вибраного MM формується загальна організаційно-технологічна структура стратегічна послідовність будівництва.

Висновки

Детальна інформаційна база даних критеріальних особливостей ОТС та класифікації методів монтажу, розроблена та сформульована групою вчених на чолі з Черненко В.К., дозволяє

використовувати всю палітру властивостей відомих ММ ще на етапі архітектурно-конструкторського проектування. Технологічні вимоги, характерні для ММ з використанням примусового підйому (переміщення) разом з конкретними технічними умовами будівництва можуть бути акцентовані при розробці архітектурних та конструкторських рішень майбутніх об'єктів, в першу чергу, великопрогонових просторових покриттів, та випрацювані інноваційних конструктивно-технологічних рішень для зведення великопрогонових будівель багатофункціональними підйомними модулями.

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