

relevant results and theoretical developments
of science and research

11

2021

issue 1, special XV.

AD ALTA

Journal of Interdisciplinary Research

AD ALTA: Journal of Interdisciplinary Research

Double-Blind Peer-Reviewed

Volume 11, Issue 1, Special Issue XV., 2021

Number of regular issues per year: 2

© The Authors (January, 2021)

MAGNANIMITAS Assn.

AD ALTA: JOURNAL OF INTERDISCIPLINARY RESEARCH

© THE AUTHORS (JANUARY, 2021), BY MAGNANIMITAS, ATTN. AND/OR ITS LICENSORS AND AFFILIATES (COLLECTIVELY, "MAGNANIMITAS"). ALL RIGHTS RESERVED.

SPECIAL ISSUE NO.: 11/01/XV. (VOL. 11, ISSUE 1, SPECIAL ISSUE XV.)

ADDRESS: CESKOSLOVENSKE ARMADY 300, 500 03, HRADEC KRALOVE, THE CZECH REPUBLIC, TEL.: 498 651 292, EMAIL: INFO@MAGNANIMITAS.CZ

ISSN 1804-7890, ISSN 2464-6733 (ONLINE)

AD ALTA IS A PEER-REVIEWED JOURNAL OF INTERNATIONAL SCOPE.

2 ISSUES PER VOLUME AND SPECIAL ISSUES.

AD ALTA: JOURNAL OF INTERDISCIPLINARY RESEARCH USES THE RIV BRANCH GROUPS AND BRANCHES, BUT THE JOURNAL IS NOT A PART OF RIV. THE RIV IS ONE OF PARTS OF THE R&D INFORMATION SYSTEM. THE RIV HAS COLLECTED AN INFORMATION ABOUT RESULTS OF R&D LONG-TERM INTENTIONS AND R&D PROJECTS SUPPORTED BY DIFFERENT STATE AND OTHER PUBLIC BUDGETS, ACCORDING TO THE R&D ACT [CODE NUMBER 130/2002], THE CZECH REPUBLIC.

A	SOCIAL SCIENCES
B	PHYSICS AND MATHEMATICS
C	CHEMISTRY
D	EARTH SCIENCE
E	BIOLOGICAL SCIENCES
F	MEDICAL SCIENCES
G	AGRICULTURE
I	INFORMATICS
J	INDUSTRY
K	MILITARISM

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MAGNANIMITAS'S PRIOR WRITTEN CONSENT. ALL INFORMATION CONTAINED HEREIN IS OBTAINED BY MAGNANIMITAS FROM SOURCES BELIEVED BY IT TO BE ACCURATE AND RELIABLE. BECAUSE OF THE POSSIBILITY OF HUMAN OR MECHANICAL ERROR AS WELL AS OTHER FACTORS, HOWEVER, ALL INFORMATION CONTAINED HEREIN IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. UNDER NO CIRCUMSTANCES SHALL MAGNANIMITAS HAVE ANY LIABILITY TO ANY PERSON OR ENTITY FOR (A) ANY LOSS OR DAMAGE IN WHOLE OR IN PART CAUSED BY, RESULTING FROM, OR RELATING TO, ANY ERROR (NEGLIGENT OR OTHERWISE) OR OTHER CIRCUMSTANCE OR CONTINGENCY WITHIN OR OUTSIDE THE CONTROL OF MAGNANIMITAS OR ANY OF ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS IN CONNECTION WITH THE PROCUREMENT, COLLECTION, COMPILATION, ANALYSIS, INTERPRETATION, COMMUNICATION, PUBLICATION OR DELIVERY OF ANY SUCH INFORMATION, OR (B) ANY DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL, COMPENSATORY OR INCIDENTAL DAMAGES WHATSOEVER (INCLUDING WITHOUT LIMITATION, LOST PROFITS), EVEN IF MAGNANIMITAS IS ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES, RESULTING FROM THE USE OF OR INABILITY TO USE, ANY SUCH INFORMATION.

PAPERS PUBLISHED IN THE JOURNAL EXPRESS THE VIEWPOINTS OF INDEPENDENT AUTHORS.

TABLE OF CONTENTS (BY BRANCH GROUPS)

A SOCIAL SCIENCES

ORGANIZATIONAL AND COMMERCIAL TOOLS OF SUPERVISION AND DEVELOPMENT OF COMPETITIVENESS OF EDUCATION NADIYA APSHAY, IRYNA SHERSTNEVA, MARIIA APSHAI, KATERINA STEPANIUK	6
GLOBAL CULTURAL PRINCIPLES OF FORMING THE SCIENTIFIC WORLDVIEW OF APPLICANTS FOR HIGHER EDUCATION IRYNA SHUMILOVA, SVETLANA ZOLOTUKHINA, VITALIY APSHAY, NATALIYA SHETELIA	10
FORMATION OF ELEMENTARY SCHOOL CHILDREN'S VISUAL-SPATIAL PERCEPTION IRYNA BARBASHOVA	15
PSYCHOLINGUISTIC FOUNDATIONS FOR THE FORMATION OF PHONEMATIC SKILLS OF YOUNGER SCHOOLCHILDREN IRYNA BARBASHOVA	21
CONTEMPORARY ABSTRACT ART AND ITS MULTIDIMENSIONALITY TETIANA PROKOPOVYCH, DMYTRO AVRAMENKO, OLGA KALENIUK, OKSANA LESYK-BONDARUK, IVAN TARASIUK, HALYNA VAKHRAMIEIEVA	26
A CHANGE OF HUMAN VALUES DURING THE LIFE AS AN INDICATOR OF THE FORMATION OF A SPIRITUAL BEING TETIANA MIYER, LARYSA HOLODIUK, IGOR TKACHENKO, VALENTYN SAVOSH, HENNADII BONDARENKO, OLENA VASHCHENKO, IRYNA SUKHOPARA	30
TOPONYMICS POLICY AS A TOOL FOR IMPLEMENTING NATIONAL NARRATIVES: INFORMATION AND LEGAL ASPECT OLGA GOLOVKO, OLEKSANDR VLADYKIN, IRYNA PAVLENKO, OLENA KOZYNETS, STANISLAV ONOPRIENKO	34
THE NATIONAL TELEVISION BROADCAST SPEECH EXPRESSIVENESS AS MEANS OF PSYCHOLOGICAL INFLUENCE ON THE SOCIETY LYUBOV STRUHANETS, IRYNA ZALIPSKA, IRYNA ZADOROZHNA, PAVLO STRUHANETS, NATALIYA DASHCHENKO	41
ANALYSIS OF TEXTS OF THE AUTHOR'S COLUMN GENRE IN THE UKRAINIAN AND AMERICAN PRESS OLENA TSVIETAIEVA, TETIANA PRYSHCHEPA, DIANA BIRIUKOVA, OLENA PONOMARENKO, OLENA HURKO	46
METHODOLOGY OF CORPORATE FINANCIAL DIAGNOSTICS IN THE PERIOD OF A CRISIS IRYNA MIHUS, MYKOLA DENYSENKO, IGOR RUMYK, SVETLANA PLETENETSKA, MYKHAILO LAPTIEV, VASYL KUPRIICHUK	52
PUBLIC ADMINISTRATION AS A SYSTEMIC PHENOMENON IN SOCIETY MARTA KARPA, LIUDMYLA AKIMOVA, OLEKSANDR AKIMOV, NATALIYA SEROHINA, OLEKSII OLESHKO, NATALIYA LIPOVSKA	56
DEVELOPMENT OF THE FINANCIAL AND ECONOMIC SECURITY OF THE COMPANY BASED ON THE SUPERINTENDENCE OF ITS BUSINESS ACTIVITY VASILY KUPRIICHUK, LARISA PERSHKO, OKSANA KYRYCHENKO, HALINA NESTERENKO, KATERYNA DANYLYUK, IRYNA KVELIASHVILI	63
METHODOLOGICAL APPROACHES TO THE STUDY OF INNOVATIVE FORMS OF EDUCATION NADIA LUTSAN, ANNA STRUK, SVITLANA BARYLO, GALYNA BORYN, SVITLANA VERBESHCHUK	68
DEVELOPMENT OF CORPORATE SOCIAL RESPONSIBILITY AND FINANCING OF SOCIAL PROGRAMS: REGIONAL ASPECT LIUBOV LYSIAK, SVITLANA KACHULA, OKSANA HRABCHUK, VITALII ZIUZIN	73
THE SEMIOSPHERE OF THE ART OF THE ARTISTIC WORD IN UKRAINIAN STAGE CULTURE IN THE SECOND HALF OF THE 20TH – BEGINNING OF THE 21ST CENTURIES NADIYA KUKURUZA, NATALIYA MARUSYK, OKSANA FEDORKIV, SVITLANA VASIRUK, HALYNA OLEKSIUK	83
WORLD MODELS OF DUAL EDUCATION AND FEATURES OF THEIR FUNCTIONING OLHA KRAVCHENKO, TETIANA STAROVA, RADION NYKYFOROV	87
MIGRATION POLICY OF UKRAINE AND MEASUREMENT OF ITS EFFECTIVENESS HANNA DOROSHENKO, NADIYA DOROSHENKO, IRYNA PIENSKA, HANNA SUKRUSHEVA, LARYSA TIESHEVA	91
EXPERIENCE OF SOCIAL ADAPTATION OF FORMER PRISONERS IN SOCIAL ENTERPRISES' CONDITIONS OF ACTIVITY OLEG LISOVETS, SVITLANA BORYSIUK, HALINA BEJGER, HANNA BIANCA, NINA OSTANINA, MARHARYTA HORODETSKA	96
HIGHER ACADEMIC FOLK-INSTRUMENTAL MUSIC EDUCATION: UKRAINIAN EXPERIENCE AND SPECIFICS OF DEVELOPMENT VIOLETTA DUTCHAK, MYRON CHEREPANYN, MARYNA BULDA, IRYNA PALIICHUK, OLGA FABRYKA-PROTSKA	103

SCIENTIFIC AND METHODOLOGICAL ASPECTS OF SELF-DEVELOPMENT STRATEGY IN PHYSICAL EDUCATION OF STUDENTS OF HIGHER MEDICAL INSTITUTIONS OF EDUCATION 109
ZHANNA MALACHOVA, TETYANA BELKOVA, OLGA SOKRUT, VALENTIN YAKUSHEVSKY, OKSANA ZAKHAROVA

THE DEVELOPMENT OF BIOETHICS IN THE CONTEXT OF THE CHRISTIAN SPIRITUAL TRADITION 114
IRYNA VASYLIEVA, NATALIIA MOZGOVA, DMYTRO BILOZOR, TETIANA HLUSHKO

D EARTH SCIENCES

GEOINFORMATION MODELING AS A FUNDAMENTAL METHOD OF COGNITION 121
LIDIYA PRYMAK

J INDUSTRY

DETERMINING THE NUMBER OF ROWS WITH SCREENING FOR VIEWERS IN THE CINEMA 127
SERHII LITNITSKYI, EUGENE PUGACHOV, VASYL ZDANEVYCH, TARAS KUNDRAT

RIGIDNESS OF COMBINED REINFORCED GLUED WOOD BEAMS 131
SVYATOSLAV S. GOMON, MYKOLA POLISHCHUK, SVIATOSLAV HOMON, PETRO GOMON, OLEG VERESHKO, YULIIA MELNYK, INNA BOYARSKA

A SOCIAL SCIENCES

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

ORGANIZATIONAL AND COMMERCIAL TOOLS OF SUPERVISION AND DEVELOPMENT OF COMPETITIVENESS OF EDUCATION

^aNADIYA APESHAY, ^bIRYNA SHERSTNEVA, ^cMARIIA APESHAY, ^dKATERINA STEPANIUK

^{a,c}*Uzhhorod Institute of Culture and Arts, 38/80, Minayska Str., 88009, Uzhhorod, Ukraine*

^{b,d}*Berdiansk State Pedagogical University, 4, Schmidta Str., 71100, Berdiansk, Ukraine*

email: ^anadiyaapshay@gmail.com, ^bsherr1964@ukr.net, ^cm.apshay@gmail.com, ^dkaterinastepanyk@gmail.com

Abstract: In this study, the authors consider organizational and commercial tools to establish the institution's competitiveness and increase their educational suggestions and services in the labor market. In the education system, useful and efficient market instruments are needed to guarantee and increase competitiveness — the results of the study attempt to orient the entire education system for sustainable functioning and integrated development. New directions and conditions of social development require the most cardinal change of the policy, intentions, plans, approaches to education, and therefore the management of the education area as a whole and the higher education system in particular.

Keywords: Commercial tools, Competitiveness, Education system, Labor market, Organizational tools.

1 Introduction

The globalization of socio-economic processes, the mobility of capital and labor, scientific and technological progress, the informatization of public relations have led to fundamental changes in the modern economy [1]. The need for an adequate response to changes in all factors of the internal and external environment of universities, adaptation to new conditions of the labor market and the market for educational services, the transition to a two-level education system and its implementation in real practice required the use of modern management methods and tools from the education sector. Today's service is necessary primarily to ensure competitiveness and the search for new competitive advantages of the university [2, 6]. The latest scientific publications on the issues of managing the competitiveness of universities do not practically take into account the main features of the functioning of universities in the context of ongoing educational reforms. Therefore, it is essential to develop and improve theoretical principles and methodological approaches (including tools) to create and implement a strategy for the development of competitiveness in the field of education.

To ensure and develop the university's competitiveness and consolidate its position in the educational services market and the labor market, the education system needs to have useful market-based tools to increase competitiveness, aiming the entire education system towards sustainable functioning and integrated development. In this case, applying the borrowing of similar tools to ensure competitiveness from other service sectors or foreign experience is not entirely acceptable since special conditions for the education system's functioning are not taken into account [3, 4, 5].

It should be noted that the capabilities and potential of the tools used in the modern educational process are not fully explored and used since this requires a detailed analysis and assessment of the education system in the economy, assessment of the functional and integrated content of the entire sphere of educational services and, additionally, an analysis of the possibility of applying skills from other areas of the economy and adapting to market relations between all subjects of the educational process such market instruments that have already fully proved their effectiveness in the holistic development of competitiveness (but in other types of economic activity) [7].

2 Literature Review

The origin of theoretical studies on competition appeared in the writings of the leading classics of economic theory in the middle of the eighteenth century.

In work "Research on the nature and cause of the wealth of peoples", A. Smith cited a generalization of competition theory. Smith's view of competition was new in the following positions:

- The concept of competition as a struggle, a rivalry was first formulated, which increases prices while reducing the supply of services and products and reduces prices with an excess of the supply of these goods;
- The main principle of competition was formulated - the principle of the "invisible hand of the market", according to which market entities act following some "plan for the development of the economy", reasonably crowding out enterprises engaged in the production of products and services, not in demand on the market. The "invisible hand of the market" creates a spontaneous order, thanks to which a market economy resists chaos and disorganization and forces the market to develop in the direction necessary for society;
- A competition management mechanism was developed, according to which the sectoral rate of return is balanced, which leads to an optimal distribution of resources between sectors and fields of activity. The competition management mechanism's essence is that with a decrease in demand for goods or services, those enterprises that produce unnecessarily expensive or low-quality products and services experience the greatest difficulties. The mechanism of the competition management process is manifested in its instantaneous response to all changes in the situation in the external market environment;
- The primary conditions for perfect, monopolistic, oligopolistic competition, monopoly, and monopsony were determined, including the number of sellers and buyers, comprehensive information about the market, mobility and applicability of the resources used, the inability of a single market entity to significantly affect the market price of goods and services (while maintaining its quantity, quality or quality of the service provided);
- A model of monopolistic competition was developed, where it was proved that in the conditions of real market relations, it is possible to fully satisfy all the needs of consumers and make optimal use of economic resources on a societal scale [23, 24].

The representative of the British classical political economy Ricardo (1772 - 1823) in his Principles of Political Economy and Taxation supplemented A. Smith's ideas on price regulation of the market using competition tools: "prices are formed only under the influence of supply and demand through competition" [16]. The idea of pure competition proposed by Ricardo made it possible to determine the level of "natural" prices in the long-term market equilibrium, as well as the principles of market "self-regulation" that contribute to the development of capitalism [11, 12, 24].

Another representative of the classical school of economics, John Stuart Mill (1806 - 1873), also contributed to the development of a theoretical model of pure competition. He singled out non-competing groups in the market, derived the equation of international demand and a triple classification of price elasticity of demand, defined the concepts of savings on opportunity costs and economies of scale. In his opinion, competition is the only condition for the formation of market prices, rents, and wages. Besides this, he substantiated that competition in itself is an economic law that establishes specific rules for market equilibrium [11].

Thus, the theory of competition developed by the classics of political economy was one of the first fundamental scientific developments devoted to the concepts and basic principles of competition in society's development. This theory's main drawback is a relatively narrow focus on the definition and role of competition as "competition" and "competition" for the sake of additional profit. The formulated model of perfect (pure) competition is determined only by price factors of competitive relations, which cannot fully allow judging the specific nature of competition [7, 8, 9, 10].

In addition to Smith, such well-known economists as Mill [11], Ricardo [16], Robinson [17], Schumpeter [19], Keynes [7], Heine [6] made a significant contribution to developing the theory of competition as Hayek [5], Porter [13, 14, 15], McConnell [10]. Benchmarking in education was considered in the works of Semenyuk [20], Finikov [3, 4], Savelyev [18] and others.

3 Materials and Methods

Having studied sources studying the instruments of management and development of the competitiveness of universities, the authors propose their classification of the instruments of competitiveness of the development and management of universities and the HPE system as a whole:

1. Administrative (direct);
2. Regulatory;
3. Economic (indirect);
4. Investment;
5. Integration;
6. Social;
7. Indicative planning tools;
8. Programming tools;
9. Innovative tools;
10. Rationing tools;
11. Monitoring.

The above tools determine the value of the competitiveness of the field of educational services as continually developing and expanding in an integrated educational space, the criteria for the development of universities taking into account world standards [8, 10, 12, 13], and primarily the provision and organization based on the combined use of modern educational technologies and market-related functioning tools.

4 Results

The main provisions of the concept of competitiveness of the education system (systemic competitiveness) are as follows:

- Competitiveness is the basis for the development of the whole society and is defined not as a list of individual economic entities but as a holistic organism with its economic agents (state, infrastructural, social and cultural institutions, public organizations) [9];
- For the functioning and competitiveness of any economic system (including the education system) should consider the influence of socio-economic factors for the development of a state. Such systems are successfully developing that concentrate their (and national) efforts on developing individual forms or groups of organizations (clusters). They can be included in the competition on a global scale, based on their integration advantages [11];
- Competitive positions of universities and the education system as a whole can only be developed through the application and use of modern educational technologies, scientific discoveries and developments, and the modernization of the entire education system [15].

The following types of competitive advantages of universities are distinguished:

1. The advantages of the lower, first order are cheap material resources, educational equipment, constructions and

buildings, small financial resources (low prices for education), low level of staff qualification, and wages.

2. The advantages of a high, second-order are unique educational technology, highly qualified personnel, powerful resources, brand, image, and communications.

If a university has first-rate competitive advantages, then it can use cheap resources in educational activities. It will allow it to sell education services at lower prices than other competitors. Thanks to this, it can defeat competitors in the fight for potential applicants. As a rule, commercial universities use this. But these advantages have their drawbacks, the main of which is the low level of educational services provided.

Second-order competitive advantages are more applicable, allowing students to obtain unique knowledge in demand on the market. Using these advantages, universities can successfully offer their educational services not because they are cheaper than competitors, but because they more closely meet consumers' requirements in the labor markets and educational services.

The regulatory and legal instruments that regulate universities' activities include the following legislative and other rules of law.

Considering administrative tools, it should be noted that the main role here is played by the organizational and staff structure of the university and the empowerment of management of its functional structures [11, 12, 13].

In the study of management tools and the development of competitiveness, the author dwells in detail on economic tools, so they primarily determine the university's competitiveness [14, 15].

Given the availability and variety of scientific approaches, the economic instruments for managing competitiveness are not fully systematized. They do not fully consider the specific and general features of higher education. In this regard, the authors propose a classification of economic instruments for managing the competitiveness of the higher education system.

All the authors' competitiveness management tools are well known and widely used in various sectors of the economy, including education [16, 17, 18].

5 Discussion

In current conditions, universities should focus on the use of innovative forms, methods, and tools for managing their activities, including competitiveness and the educational process [14, 19, 20]. It is known from world practice that only innovative universities can meet modern trends and requirements of the global educational system and ensure in their development the achievement of the required level of competitiveness.

5.1 Tool Name. Basic Concepts. Terms of Use

Direct costing. Fixed and overhead costs are not included in the total cost of services but are directly attributed to the profit and loss account in the reporting period in which they are formed. Fixed and variable costs are separately taken into account. Competitiveness is determined by the ratio: price-quality.

Absorption-costing. The full cost of services includes all costs. It allows you to most accurately assess the number of costs included in the cost of services.

Standard costing. For each type of cost (educational, material, etc.), rationing is applied per unit of product Availability of a system of norms and standards.

The ABC Method. An organization's activity is divided into processes or operations. The total cost is determined based on all operations and processes' total costs — expansion and detailing of the accounting system used.

Target costing. Based on the accepted cost of educational services, a target cost is established, provided by all university

departments. Organization for monitoring the level and volume of costs. Marketing forecasts and market positioning.

Analysis. Costs are determined for the provision of specific services, used in strategic management Marketing research of the labor market, and the university's positioning on it.

The CSS Method. It defines the entire sequence of creating the cost of services. They are used in strategic management and assumes the strategic positioning of the university and market conditions.

Planning a competitiveness strategy for an educational institution allows you to consistently and continuously determine the university's quality, which is the source of its key advantages - this is strategic benchmarking [19, 20]. Also, it allows you to identify those aspects of the activity that require immediate effective transformation. Benchmarking demonstrates the directions of development, improvement, and adjustment of the university to increase its competitiveness. It is continuous systematization, improvement of activity methods that laid the foundation for benchmarking [21, 22].

In theory and practice of benchmarking, there are a large number of its types. The university's choice of a certain type of benchmarking is determined by the goals, requirements of the internal and external environment, the university's needs, available development potential, and resources, as well as the ability to use new technologies and introduce them into the organization's strategic management mechanism, which ensures its market competitiveness [23, 24].

The use of benchmarking tools in the competitiveness management mechanism of the educational organization allows improving the efficiency and quality of the educational process, introducing advanced experience in organizing activities at the university, introducing a new concept for conducting educational process classes, analyzing and evaluating the professionalism of scientific personnel, which ultimately leads to continuous sustainable development educational institution and the achievement of the required level of competitiveness with a given quality of educational services [24, 26]. The effectiveness of using benchmarking depends on the choice of the object of research and improvement, determining the position of the reference company and the usefulness of its educational experience for the recipient university understudy, developing a support system, introducing this experience into the activities of the educational institution in close connection with its strategic management system.

In addition to benchmarking, an instrument such as monitoring the main factors of the university's competitiveness is used to evaluate the quality indicators of educational services [25].

The educational institution of higher education as a subject of management of a holistic system of education is also an object of management since each direction and type of activity of a university is assigned to a certain extent [28].

5.2 Type of Benchmarking and Characteristics of the Tools

Strategic. The object is strategic actions, approaches to their development and implementation — the need to change the strategy, which is caused by changes in environmental conditions. Focus on long-term results — the institution's intention for global changes in its activities.

General. The activity of the object is compared with similar positions of institutions in other industries. Lack of positive experience in the educational sphere. Research and application of innovation. The goal is to use best practices.

Competitive. The effectiveness of the functioning of structural units of one university is assessed. Condition - an agreement on cooperation with competitors. The goal is to increase assessment indices compared to current indicators.

International. The conditions for the operation of the facility are compared with the studied similar areas of universities in other countries [21].

Lack of successful experience of competitiveness in their country. There is a presence of a potential partner in another country; availability of the resource base. The goal is to achieve world-class education, leadership in the industry.

Comparative analysis, assessment, measurement, and comparison of the university's activities' studied indicators. There is a need to determine their competitive position in the market. The goal is to improve the current performance of autonomous and structural units. Effective functioning cannot be based solely on traditional approaches to the competitiveness management process. The university administration's main requirement is its ability to influence the results of its activities and the activities of the university. Based on this, the university management comes to creating a comprehensive system for assessing the functioning of its units and the university as a whole based on the competitive advantages they have achieved [23, 25].

6 Conclusion

The introduction of the latest technologies using a high level of intellectual resources and the market trends of globalization are becoming the main factors determining the development of the economy and the real politics of the 21st century. In this regard, the development of citizens' level of intellectual potential is a key condition for the country's sustainable socio-economic development. Two factors are of particular importance: the transformation of education into the most important component of the socio-economic and moral-spiritual basis of social progress and the widespread use of information technologies in the educational process.

The competitiveness of the higher education system needs to be comprehensively improved in connection with the development of the information society, the country's transition to a knowledge economy, where the demand for intellectual professions predominates. Prospects and further development trends of the higher education system require the development and implementation of a modern, systematic concept of managing a university's competitiveness in a dynamic, market, competitive environment.

In these conditions of functioning of the education sector, scientific and methodological developments are needed to manage universities' competitiveness, which can increase their contribution to the socio-economic development of the state, which determines the relevance of this study. Besides, the currently used methods for assessing and managing universities' competitiveness are in development and leave a fairly wide range for the expansion and improvement of their modifications. The idea of reforming and modernizing the education sphere is that general education should be restructured for a professionally oriented orientation. The higher education system is faced with implementing applied student training, focused on the integration of the university with vocational education, individual education, and student training, taking into account real demand in the domestic and foreign markets.

Literature:

1. Antonyuk, L.L. (2014). *International competitiveness of countries: theory and mechanisms of implementation*. The monograph, K.: KNEU, 273.
2. Benchmarking Handbook. (2010). *Benchmarking in European Higher Education*. European Centre for Strategic Management of Universities (ESMU). November 2010. Available at: https://www.che-consult.de/downloads/Handbook_Benchmarking_EBI_II.pdf.
3. Finikov, T.V. (2012). *The entry of the national system of higher education in the European space of higher education and research: monitoring research: analytical report*. International

grace. Foundation "International Research Foundation of Education Policy". Kyiv: Taxon, 54.

4. Finikov, T.V. (2018). *Local quality management systems: world experience and Ukrainian construction practices*. Edited by T.V.Finikov and V.I. Tereshchuk. K.: Taxon, 316.

5. Hayek, F.A. (1999). *Cognition, competition, freedom*. Saint-Petersburg: Pnevma, 381.

6. Heine, P. (1993). *Economic way of thinking*. M.: Catallaxy, 704.

7. Keynes, J.M. (1971). Selected works. Translated from English of J.M. Keynes. *Preface*, 5-24, compiled by Khudokormova A. G.; Commented by Kalashnov Yu.N. M.: Economy, 540.

8. Klimenko, S.M., Omelyanenko, T.V., & Barabas, D.O. (2008). *Management of enterprise competitiveness*. K.: KNEU, 520.

9. Kogan, A. (1983). *In the creative laboratory of Karl Marx. Plan of economic research, 1857-1859 and Capital*. M.: Mysl [Thought], 174.

10. McConnell, K. & Brue, S. (1992). *Economics: in 2 Volumes*. M.: Republic, 114.

11. Mill, J.S. (1980). *Fundamentals of political economy*. M.: Progress.

12. Palekha, Y.I. & Apshai, M.V. (2020). Documentary management of the institution as an indicator of the level of its information culture. *Studies in archival affairs and document science*, 28, 102–110.

13. Porter, M. (1993). *International Competition: The Competitive Advantages of Countries*. M.: International relations, 896.

14. Porter, M. (2002). *Competition*. St. Petersburg: Williams, 495.

15. Porter, M. (2008). *Competitive advantage: how to achieve high results and ensure sustainability*. M.: Alpina Business Books.

16. Ricardo, D. (2007). *The beginnings of political economy and taxation*. Translated by P.N. Klyukin, Anthology of economic thought. M.: EKSMO, 960.

17. Robinson, J. (1986). *The economic theory of imperfect competition*. M.: Progress, 472.

18. Savelyev, E.V., Chebotar S.I., & Stefanych D.A. (2008). *The latest marketing*. The textbook by E.V. Saveliev, K.: Knowledge, 420.

19. Schumpeter, J.A. (1995). *Capitalism, socialism and democracy*. K.: Basics, 528.

20. Semenyuk, S. (2012). Development of innovative marketing in the market of educational services. *Galician Economic Bulletin*, 6(39), 51–158.

21. Sherstneva, I.V. (2019). Pedagogical component of the professional competence of the future teacher of mathematics in the context of the competence approach. *Scientific notes of Berdyansk State Pedagogical University. Series: Pedagogical sciences*. Berdyansk: BSPU, 3, 406-412.

22. Shumilova, I.F. (2018). General cultural competence of the teacher - an important direction of the idea of leadership in education. *Scientific notes of Berdyansk State Pedagogical University. Series: Pedagogical sciences*. Berdyansk: BSPU, 2, 208 - 215.

23. Smith, A. (1962). *Research on the nature and causes of the wealth of peoples*. Wealth of Nations. The Harvard Classics.

24. Smith, A. (2011). *The welfare of nations. Research on the nature and causes of the well-being of nations*. K.: Port Royal, 684.

25. Standards and recommendations for quality assurance in the European Higher Education Area (ESG). (2020). Available at: https://enqa.eu/wpcontent/uploads/2015/11/ESG_2015.pdf.

26. Stepanyuk, K.I. (2020). Technological and design skills of masters of primary education: updating the content of professional training. *Scientific notes of Berdyansk State Pedagogical University. Series: Pedagogical sciences*. Berdyansk: BSPU, 1, 426-435.

27. Strategic Advisory Group at the Ministry of Education and Science of Ukraine. (2015). *Roadmap for educational reform (2015-2025)*. Charitable Foundation "Institute for Educational Development", K., 78.

28. Verkhovna Rada of Ukraine. (2018). *Law of Ukraine "On Education" №2145-VIII of 05.09.2017: as of September 14, 2018*. Available at: <http://zakon.rada.gov.ua/laws/show/2145-19>.

Primary Paper Section: A

Secondary Paper Section: AM

GLOBAL CULTURAL PRINCIPLES OF FORMING THE SCIENTIFIC WORLDVIEW OF APPLICANTS FOR HIGHER EDUCATION

^aIRYNA SHUMILOVA, ^bSVETLANA ZOLOTUKHINA,
^cVITALIY APSHAY, ^dNATALIIA SHETELIA

^a*Berdiansk State Pedagogical University, 4, Schmidta Str.,
71100, Berdiansk, Ukraine*

^b*H.S. Skovoroda Kharkiv National Pedagogical University, 2,
Valentynivska Str., 61168, Kharkiv, Ukraine*

^{c,d}*Uzhhorod Institute of Culture and Arts, 38/80, Minayska Str.,
88009, Uzhhorod, Ukraine*

*email: ^aazkur-shif@ukr.net, ^bkaf_pedagogik@ukr.net,
^cv.apshay123@gmail.com, ^dnoritsu16@ukr.net*

Abstract: Pan-European trends in education are based on new requirements for specialists' professional responsibility to Ukrainian society at the planetary and civilization levels. The suitability of the earthly and civilization approaches is associated with a profound paradigm shift in understanding education's meaning and possibilities as a broad social phenomenon. Education is considered the most critical area of personal creativity, the formation of an individual and socio-cultural mentality in the context of understanding culture and worldview. The analysis of the formation of general cultural competence of applicants of higher education is carried out. The philosophical, pedagogical, psychological, administrative aspects are considered.

Keywords: Educational and cultural values, General cultural competence, Managerial approach, Pedagogical approach, Philosophical, Psychological.

1 Introduction

One of the leading tasks and results of student preparation for life should be realizing that the curriculum vitae (life process) depends not only on the knowledge and skills acquired at the university but also on general cultural competence. There is a specific reflection of the prevailing culture of the individual in the sphere of life. The authors are considering the study of life, motivation, and normalization of human activity in the following aspects: philosophical, psychological, and pedagogical [1, 3, 4, 5]. The knowledge of these approaches requires ellipticization (semantic folding) in the study of the student's general cultural competence. The conducted scientific analysis allowed to reveal the general cultural competence of the student as:

- An integrated personal education;
- A complex conglomeration of educational and cultural values;
- Knowledge;
- Skills;
- Personality qualities (which ensures the unity of general and pedagogical culture, adequate orientation in modern sociocultural space);
- Intercultural interaction with the environment.

The student's general cultural competence is a product of the learning process, not directly its result. It is a consequence of the student's self-development, personal growth, synthesis of activity, and personal experience. Thus, the acquisition by a student of general cultural competence presupposes the development of the personality, which determines its place in the pedagogical space and society, but is also an effective mechanism.

The specificity of the student's general cultural competence has reflected in the content of the structural components of this competence.

2 Literature Review

The separation in the structure of general cultural competence of the student's personal-reflexive component is also conditioned by the need to develop a set of professional and personal qualities associated with cultural activities [12], namely: humanity (humanitarian thinking, attitude to man as the highest value, understanding of inseparability from culture educational process as "cultivation" of the individual), citizenship (personal position, expressed in respect and sense of duty to the country

and its culture, to the educational community and students, willingness to defend the values of national culture and education), moral responsibility (ability to respond adequately) for the results of their activities, conscientious observance of moral and ethical, spiritual and value norms and rules of conduct in terms of cultural, linguistic, religious and other differences between people) [13], professional mobility (willingness to move quickly enough in the educational and cultural space, to successfully master new educational technologies, including information and communication, to acquire knowledge and skills, which are not enough for productive general cultural activities), psychological and pedagogical improvisation (need for a creative search, creative imagination, inspiration, and psychological and educational intuition, artistry and the integrity of creative potential, flexible (cultural) response to different situations in life) [16, 18].

The main functions of general cultural competence, which reflect the diversity of the student's solution of methodological, innovative, research, academic, systematic, and general cultural tasks, are worldview, communicative-cultural, organizational-methodical, control-regulatory [13].

Worldview function involves the use of a system of views, values, and beliefs about the world as a whole and their application in life, focused on the formation of students' worldview, synthesized into a holistic and complete system of factors (cognitive, emotional, evaluative, moral and volitional) spiritual world student. The communicative-culturological function is conditioned by the necessity of realization of cultural interaction with people, both in the educational process and outside it (the process of life); on the formation of skills of search, transformation, and transmission of information carried out in pedagogical communication, etc.

The organizational and methodological function is aimed at working out and disseminating the relevant procedural requirements, norms of behavior, which are put forward by the sphere of general cultural competence of the student and according to which the general cultural perception, thinking, attitudes and values, ways of general cultural behavior, life are formed [14]. This function determines the orientation and adaptation of students to general cultural activities in general, acts as a factor of self-development, considering the process of self-actualization as a product of their cultural creativity in the process of life. The control-regulatory function reflects the student's ability to control the formation of general cultural competence. It is realized through various forms, assimilation, and observance, of which the educational process participants determine their rapid adaptation to the circumstances and ensures success in later life [15].

3 Materials and Methods

The formation of general cultural competence of the student is presented in the form of such interconnected components: motivational-value, cognitive, procedural, personal-reflexive. Each of the components is characterized by a specific content, which corresponds to the peculiarities of life and creativity [6]. Thus, the motivational and value component is characterized by the professional and cultural orientation of the student to carry out cultural activities and includes the need to develop cultural space, cognitive interest in cultural problems, awareness of the importance of cultural competence, and motivation to master it, perception of the individual, national and national goals, human values and self-worth in the process of its domestication and "humanization".

The cognitive component contains a set of philosophical-psychological and humanitarian-cultural (historical, linguistic, regional studies, etc.) knowledge that constitutes a kind of the foundation of general cultural competence of students:

- General cultural knowledge (about the social functions of culture in human life and society, the principles of common, spiritual and moral, general culture [7];
- The most important achievements and specific features of the culture of the native land, national, European, world science, culture, and art [6];
- Knowledge of native and foreign languages, moral and ethical norms of modern speech culture;
- Understanding the uniqueness of different manifestations of cultural contexts in different peoples and representatives of different cultures [8];
- The basics of dialogue and polylogue in heterogeneous cultural groups, the role and importance of cultural competence, its components, directions, forms, methods of formation [14];
- The basics and functions of psychological communication, tolerant behavior, interaction, and dialogue with representatives of other social groups, cultures, religions, etc.) [9].

Creative assimilation of general cultural knowledge contributes to a deep theoretical understanding and awareness of the laws of the student's socio-cultural and intercultural life.

The procedural component is a set of general cultural skills, the main groups of which are:

- Gnostic skills (analysis, interpretation of educational and cultural phenomena, causal links between them based on generalization and systematization; a systematic collection of information, orientation in cultural and spiritual contexts of modern Ukrainian society, unbiased perception of new knowledge, perception of culturological problems through the prism of one's views and attitudes, identification of creativity, variability in the selection of ways to solve situations of a general cultural nature, reasonable determination of developments and expected results) [13];
- Organizational skills (clear definition of goals of culturally appropriate activities, optimal distribution of time, own forces and resources, finding relevant ways and cooperation with other people to achieve goals, independent implementation of actions in changed or new conditions of socio-cultural space) [10];
- Communication skills (penetration into another person's state, i.e., "reading" non-verbal information transmitted by the interlocutor; free use of dialogic forms of communication, establishing and maintaining relationships with other views, other moral and aesthetic values, tolerant attitude to the opponent's opinion, benevolence, empathy, and tact) [12];
- Regulatory skills (control of behavior and negative emotions, support of positive emotional expressions, manifestation of self-control, patience, endurance in intercultural interaction) [11].

The personality-reflex component presupposes the development of the student's ability to self-observation, self-knowledge, self-analysis, reflection, self-reflection of one's actions and deeds, and adequate assessment and self-assessment, making conscious and timely adjustments to one's cultural activity. All this is the basis of self-education, self-development, self-improvement of the individual in the process of life, the development of its worldview, social, and cultural position [11].

4 Results

According to the comparative analysis of the results of the ascertaining and control stages of the conducted pedagogical experiment, the hypothesis put forward in the research course is confirmed. Quantitative and qualitative analysis of data obtained using educational monitoring of the formation of students' general cultural competence, personal and cultural development and made it possible to conclude that the chosen experimental research method contributed to students' general cultural competence.

The purpose of the pedagogical experiment was to test the hypothesis, the objectivity of theoretical conclusions, the effectiveness and efficiency of a sound scientific and methodological system for the formation of students' general cultural competence. The experiment was organized on the base of Berdyansk State Pedagogical University. The research was conducted in natural conditions without violating the logic and course of the educational process. According to the defined criteria and indicators, the diagnosis of the initial level of formation of students' general cultural competence was carried out at the ascertaining stage. According to the experiment's program, two groups were involved in the formation stage: the experimental group (EG), which consisted of 374 people, and the control group (CG) - 371 people. The reliability of the obtained experimental data was confirmed by mathematical statistics methods (using Pearson's parametric criterion) [2].

The analysis of the experiment results testified to the success of the work on the formation of general cultural competence of students, which is confirmed by the data.

4.1 Motivational-Axiological Criterion (According to the Results of the Questionnaire)

Interest in educational and cultural issues:

- Stable (the desire to get to the heart of educational and cultural problems, their perception from the standpoint of the requirements of professional competence, the passion and creative approach to their solution, active and interested participation in professional self-improvement) in EG - (14,71) and CG - (5.66);
- Situational (limited interest in educational and cultural problems, the need for the external impetus for their more profound knowledge, identification of episodic interest in the process of improving their professionalism) in EG - (3.74) and CG - (1.89);
- Lack of interest (disinterest in learning the essence of educational and cultural problems, explicit or implicit reluctance to improve their professional level) in EG - (-18.45) and CG - (7.55).

The motivation for the development of general cultural competence:

- Decisive (predominance of value motivation to acquire general cultural competence, identification of activity and creativity in the process of mastering it) in EG - (11.76) and CG - (2.96);
- Neutral (perception of the importance of acquiring general cultural competence, but in the context of a specific situation, usually related to external stimuli) in EG - (4.81) and CG - (3.23);
- Negative (unawareness of the meaning and role of general cultural competence, lack of professional orientation in the motives for its formation) in EG - (-16.58) and CG - (-6.20).

Cognitive-culturological criterion (according to academic tests): completeness of general cultural knowledge - the amount of program knowledge about the studied object in EG - (12.57) and CG - (1.35).

The nature of knowledge acquisition:

- Creative (the presence of conscious and systematic general cultural knowledge, their free and creative interpretation, strong expertise in the field of culture, the ability to discover unknown aspects of objects, a sense of the problem, the originality of conclusions) in EG - (6.12) and CG - (1.08);
- Reconstructive (possession of basic knowledge, some of which is freely interpreted, the ability to perform consistent learning activities, remember and reproduce the necessary information, knowledge of methods and methods of reconstructive activities) in EG - (6.03) and CG - (0.27);

- Reproductive (assimilation of a particular part of elementary general cultural knowledge without their creative rethinking and transfer to the practical plane, limited general cultural worldview, unformed knowledge about methods of cognition and methods of activity, reproduction of ready knowledge) in EG - (-12.15) and CG - (0.81).

Activity criterion is a formation of general cultural skills (based on the results of solving pedagogical situations and diagnostic tests) are as follows:

- Gnostic (analysis, interpretation of educational and cultural phenomena, causal links between them based on generalization and systematization; a systematic collection of information, orientation in the cultural and spiritual contexts of modern Ukrainian society, unbiased perception of new knowledge, perception of cultural problems through the prism of their views and attitudes, identification of creativity, variability in the selection of ways to solve situations of a general cultural nature, reasonable determination of the development of events and expected results) in EG - (18.72) and CG - (6.74);
- Organizational (clear definition of goals of cultural activities, optimal distribution of time, own forces and resources, finding relevant ways and cooperation with other people to achieve goals, independent action in changed or new conditions of socio-cultural space) in EG - (26.20) and CG - (23.99);
- Communicative (penetration into the state of another person, "reading" non-verbal information transmitted by the interlocutor; free use of dialogic forms of communication, establishing and maintaining relationships with other people, showing friendliness, empathy, and tact) in EG - (19.25) and CG - (12.40);
- Regulatory (control of one's behavior, management of negative emotions, support of positive emotional expressions, manifestations of self-control, patience, endurance in intercultural interaction) in EG - (21.66) and CG - (12.94);
- Reflexive (analysis, self-analysis, evaluation, self-evaluation, reflection, self-reflection, and correction of the results of their actions and deeds to improve activities) in EG - (25.40) and CG - (12.94).
- Personal criterion - the development of personal and professional qualities (based on self-assessment and assessment of students to each other and the creation of pedagogical situations);
- Humanity (humanitarian thinking, attitude to man as the highest value, understanding of the inseparability of man from culture, perception of the educational process as "cultivation" of the individual) in EG - (24.33) and CG - (12.40);
- Citizenship (respect and sense of duty to the country and its culture, educational community, and pupils, readiness to defend the values of national culture and education) in EG - (21.39) and CG - (8.36);
- Moral responsibility (ability to adequately be responsible for the results of their activities, conscientious observance of moral and ethical, spiritual and value norms and rules of conduct in terms of cultural, linguistic, religious and other differences between people) in EG - (17.65) and CG - (8.63);
- Professional mobility (rapid movement in the educational and cultural space, successful mastery of new educational technologies, including information and communication, the ability to acquire knowledge and skills that are lacking for practical, cultural activities) in EG - (29.68) and CG - (23.18);
- Pedagogical improvisation (creative imagination, presence of pedagogical intuition, artistry, flexible reaction to pedagogical situations) in EG - (29.95) and CG - (6.47) [1, 21].

5 Discussion

Scientific and methodological system of formation of general cultural competence of students provides an opportunity to comprehend ways and formalize the idea of the holistic process of creation of structural components of this competence in higher education, reproduces the purpose and objectives of forming the studied individual and professional personality as a professional phenomenon [17, 18].

The developed scientific and methodical system of students' general cultural competence includes the following subsystems: methodological-target, structural-semantic, technological, and diagnostic [19].

The system-forming factor of the formation of students' general cultural competence is their humanistic orientation, which determines the purpose of the system, the presence and feasibility of subsystems, and its structural elements. It indicates the main characteristics of the object to be reproduced in the system.

The methodological-target subsystem reflects the methodological approaches to the study of the selected problem (systemic, personal-activity, competence, culturological, anthropological-humanistic, axiological, regional), principles (integrity, purposefulness, systematicity, continuity, continuity). Culturological and professional orientation of student training, interdisciplinarity, integration of general cultural and professional knowledge, taking into account world, national and regional aspects of culturological problems, reliance on age and individual features of students). The formation of students' general cultural competence synthesizes objectivity and regularities of educational process professional training of the person and characteristic features of general cultural human activity; functions (worldview, organizational and methodological, communicative and cultural, control and regulatory) of the specified competence. The defined conceptual basis enables the optimal achievement of the proposed system's goal – the formation of students' general cultural competence [6, 20].

The structural and semantic subsystem takes into account the internal structure, relationship, and interdependence of components (motivational-value, cognitive, procedural, personal-reflexive) of general cultural competence as an integrated personal education, the content of which provides for the organization of professional training focused on all goals [21]. The above components, i.e., the formation of motivation to acquire general cultural competence, development of general cultural worldview, professional and personal qualities, mastering the necessary general cultural judgments and knowledge, mastering a set of skills and abilities, the presence of which allows to carry out life from the standpoint of general culture and professional competence.

The technological subsystem includes appropriate technological measures aimed at achieving the goal laid down in the methodological and target subsystem, providing for the formation of students' general cultural competence at the following stages:

- Preparatory stage, which provides the design and development of scientific and methodological support for the formation of the studied phenomenon [3];
- Motivational-orientation stage, the purpose and tasks of which are to actualize the role and importance of general cultural competence for future professional activity and life of students, development of interest and stimulation of positive motivation to acquire this competence [4];
- Content-procedural stage is aimed at the formation of all components of general cultural competence - a set of public cultural knowledge and skills, development of relevant professional and personal qualities, gaining experience in available cultural activities, which contributes to attracting students to different types

(educational, research, local history, social and academic, self-educational, etc.) activities [5];

- Analytical and corrective stage involves the analysis, evaluation, and self-assessment of the results obtained on the formation of students' general cultural competence and making the necessary adjustments in the process of its formation [2].

Thus, the presented scientific and methodological system of formation of general cultural competence of students is characterized by the following features: structure - a specific set of elements (subsystems), which are system-creating units; integrity that unites all the elements and reflects the nature of their connections and interactions; hierarchy - the organization of vertical interaction of system elements; orientation, which is to regulate activities following the stated goal. The developed system adequately corresponds to the content of the formation of the student's general culture and professional competence.

The positive influence of the defined scientific and methodical system on the formation of motivational-value, cognitive, procedural, and personal-reflexive components of students' general cultural competence has been experimentally proved, which confirmed the hypothesis put forward in the study.

It is established that as a result of carrying out the pedagogical experiment, the formation of general cultural competence at productive and sufficient levels was found by 75,63% of students of the experimental group, 62,37% - control group (before experiment respectively 61,26 and 55,67%) that is explained by efficiency of the implementation of the developed systems of formation of general cultural competence of students. This contributed to the awareness of the importance of acquiring general cultural competence for professional activity and personal life, allowed to ensure thorough mastering by students of a set of general cultural knowledge and skills, provided activation of self-movement aimed at developing professional and personal qualities [1, 19].

According to the results of the experiment, effective forms and methods of organization of educational-cognitive (problem-developing, active-discussion, game, training, project, etc.), research-local history (conducting excursions, work in archives, museums, libraries, etc.), public-educational (organization and participation in cultural and artistic events, performances, etc.), self-education (drawing up a program of self-education, selection of pedagogical situations of general cultural nature, keeping a diary "Student self-education route", etc.) activities aimed at forming general cultural competence of students [1, 15].

6 Conclusion

Cultural training allows the student to organize the cultural background of life and the activity's cultural content. The future specialist should be familiar with the culture of socially responsible decisions and deeds, communication with culture, and culture. Student thinking may be characterized by the achievements of different cultures and eras. Each culture is in its own right. To enter into a dispute with her, find a point of contact, learn useful lessons from historical experience, feel yourself part of world culture – this is the purpose of the methodology of cultural studies. In addition to the ability to reproduce a cultural experience, a student needs to correct his activities following the changing content of the cultural process, a kind of rejection of dogmatism, and stagnation in social life. In the professional activity, the self-improvement of a specialist continually occurs, and the ethical meanings of each act are filled in the general process of the activity. It is a culture that embodies the style of thinking and human behavior.

The art of building relationships with people is studied by social psychology. The decisive factor for building relationships, social psychologists highlight the impact on the communication partner.

The ability to build an impact as a psychologically grounded act, adjust the young specialist's attitude to the world, activate the pupil's energy with his influence, and, therefore, maximize the educational potential of cooperation with a person is the content of pedagogical technology.

Literature:

1. Apshay, V.F. & Apshay, N.I. (2020). Methodical work as a means of improving the professional training of a teacher of higher education. *Österreichisches Multiscience Journal. Innsbruck*, 1(5), 42-45.
2. Banks, J. & Banks, C. (Eds.). (2007). *Multicultural education: Issues and perspectives*. Hoboken, NJ: John Wiley & Sons.
3. Barrera, I. & Karmer, L. (1997). From monologues to skilled dialogues: Teaching the process of crafting culturally competent early childhood environments. In P. J. Winton, J. A. McCollum & C. Catlett (Eds.). *Reforming personnel preparation in early intervention: Issues, models, and practical strategies*. Baltimore, MD: Paul H. Brookes Publishing.
4. Cataldi, E.F., Laird, J., & Kewal Ramani, A. (2009). *High school dropout and completion rates in the United States: 2007 (NCES 2009-064)*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. Retrieved October 11, 2009. Available at: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009064>.
5. Creswell, J. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education.
6. Dantas, M. (2007). Building teacher competency to work with diverse learners in the context of international education. *Teacher Education Quarterly*, 34(1), 75-94.
7. Diller, J. & Moule, J. (2005). *Cultural competence: A primer for educators*. Belmont, CA: Thomson Wadsworth.
8. Ford, D. & Whiting, G. (2007). Another perspective on cultural competence: Preparing students for an increasingly diverse society. *Gifted Child Today*, 30(2), 52-55.
9. Jeffreys, M. (2006). *Teaching cultural competence in nursing and health care: Inquiry, action, and innovation*. New York: Springer.
10. Leavitt, R. (2004). Cultural competence: An essential element of primary healthcare. In W. Boissonnault (Eds.). *Primary care for the physical therapist: Examination and triage*. St. Louis, MO: Elsevier Saunders, 26-38.
11. McKown, C. & Weinstein, R. (2008). Teacher expectations, classroom context, and the achievement gap. *Journal of School Psychology*, 46, 235-261.
12. Psychological assistance. Pearson criterion calculation. (2007). The Electronic resource. Available at: <http://www.psychol-ok.ru/statistics/pearson>.
13. Rosenthal, R. & Jacobson, L. (1968). *Pygmalion in the classroom: Teacher expectations and pupils' intellectual development*. New York: Holt, Rinehart & Winston.
14. Shetelya, N.I. (2017). Psychological climate as an integral indicator of interpersonal relations in the team. Collection of scientific articles of Kyiv International University and the Institute of Social and Political Psychology of the National Academy of Pedagogical Sciences of Ukraine. *Psychological Sciences Series: Problems and Achievements*, 10, 249-260.
15. Shumilova, I.F. (2017) *Theoretical and methodological bases of formation of general cultural competence of future teachers of humanities*. Abstract. Kharkiv, 40.
16. Teel, K. & Obidah, J. (2008). *Building racial and cultural competence in the classroom: Strategies from urban educators*. New York: Teachers College Press.
17. Tyler, K., Boykin, A.W., & Walton, T. (2006). Cultural considerations in teachers' perceptions of student classroom behavior and achievement. *Teaching and Teacher Education*, 22, 998-1005.
18. U.S. Department of Education, National Center for Education Statistics. (2007). *The Condition of Education 2007, (NCES 2007-064)*. Washington, DC: U.S. Government Printing Office
19. White-Clark, R. (2005). *Training teachers to succeed in a multicultural climate. Principal*, 84(4), 40-44.

20. Wong, C.K. & Blissett, S. (2007). Assessing performance in the area of cultural competence: An analysis of reflective writing. *Journal of Physical Therapy Education*, 21(1), 40-47.
21. Zolotukhina, S.T. & Ptashny, O.D. (2017). Features of the organization and conduct of practical classes in higher educational institutions of the second half of the XIX century. *Pedagogy and psychology: a collection of scientific papers*. Kharkiv: Publisher Rozhko S.G., 57, 183-193.

Primary Paper Section: A

Secondary Paper Section: AM

FORMATION OF ELEMENTARY SCHOOL CHILDREN'S VISUAL-SPATIAL PERCEPTION

³IRYNA BARBASHOVA

*Berdiansk State Pedagogical University, 4, Schmidt Str.,
Zaporizhia Reg., 71100, Berdiansk, Ukraine
email: "i.a.barbashova@gmail.com"*

Abstract: The article deals with the results of the experimental formation of primary school children's visual-spatial perception. Research on the problem actualizes the primary educational task to teach children to recognize and reproduce the spatial properties of objects of reality. The article highlights the results of the experimental formation of the visual-spatial perception of primary school children. Visual-spatial ability as a functional unit of perception is defined, its structure and mechanism of formation are characterized. The results of the research are generalized by its purpose and tasks. Prospects for further research may consist of studying the characteristics of the perception of time and movement by younger students, distance to objects, and depth.

Keywords: Methods of examining, Pupils of elementary school, Spatial properties of objects, Spatial standards, Visual-spatial skills.

1 Introduction

Primary school is one of the periods of active formation of spatial representations. Various analyzers (kinesthetic, tactile, visual, acoustic) are involved in developing spatial concepts and methods of orientation in space. Although formed in advance, spatial concepts are considered the most difficult process than the ability to distinguish the qualities of an object [7].

The formation of spatial representations is a significant message for preschoolers' social adaptation and their subsequent education at school. The intellectual development of preschoolers directly depends on the formation of spatial concepts and orientations in space. Their lack of development by the end of preschool age is a crucial factor causing difficulties in the child's mastering of multipurpose learning skills. Similar deviations in development are expressed in pathologies of graphic activity, reading, writing, mastering operations, and more.

The formation of spatial representations determines the ability to operate with them in terms of the degree of recognition and differentiation of an object by spatial characteristics, but most importantly - at the level of mental reproduction of an object's image and changes in its position in space. It helps to place and orient an object in any frame of reference, which means understanding its position among the totality of other objects [21, 6].

The development of spatial perception in preschoolers contributes to the development of memory and attention [22]. For the transformation from visual-figurative to visual-active thinking, laborious analytical-synthetic work is required, the selection of elements, their comparison with each other, which is impossible without the presence of formed spatial representations and spatial imagination in children [4].

This article aims to describe the experimental method of forming the visual-spatial perception of primary school children. The set goal is specified in the following tasks:

- To define the ability as a functional unit of visual-spatial perception;
- To identify the levels of visual-spatial skills formed in pupils in the current pedagogical experience;
- To characterize mono- and bimodal didactic influences on the formation of visual-spatial perception;
- To evaluate the implemented didactic influences' effectiveness.

2 Literature Review

The scientific basis for solving this problem is the formation of perceptual actions concerning their neurophysiological nature theory, internal structure, and stages of internalization [3, 14, 19, 23]. Of particular importance, there are studies on children's

education with visual impairments [9, 12, 17]. A strong resource for developing visual-spatial perception includes educational and methodological support for primary education, reflected in textbooks and publications for teachers [8, 11, 15, 16]. The foreign authors perform valuable researches in the following aspects:

- Application of augmented reality technologies and 3D metrics in the formation of pupil's visual-spatial abilities [1];
- Identifying the specifics of teaching visual-spatial perception in urban, suburban, remote primary education [5];
- Establishing a relationship between the effectiveness of visual-spatial perception and the success of mastering certain school subjects [10];
- Development of a criterion base for assessing pupils' visual-spatial representations [18].

Thus, the problem is multifaceted, intersectoral, and requires detailed study.

Improving the sensory sphere of primary school pupils requires the functional unit's definition that will be subject to didactic influences and the quality of which can be measured. In our opinion, such a unit should be chosen as a skilled way to perform specific actions based on acquired knowledge and skills, and in the context of our studio – visual-spatial skill.

It is logical to assume that its components – perceptual actions determine the essence of visual-spatial ability. By neurophysiological nature, such actions are circular reflex acts [3, p. 45], a continuous cyclic interaction between receptor and effector processes: nerve impulses from receptors enter the brain, are processed, return to receptors, adjust the activity of the desired motor areas, optimize information that is again transmitted to the central nervous system.

In the psychology of perception, two types of perceptual actions are exhaustively studied: introductory, aimed at finding the object, highlighting its informative features and acquaintance with them, creating a basic image of the object; cognitive, which consist in comparing the primary image with stored in memory standards (socially produced samples of spatial features), categorization and naming of the examined properties [19, p.80-83, 23, p.63, 14, p.186, p.199–200]. These perceptual actions are performed sequentially and constitute the internal structure of visual-spatial ability.

Creation of a mechanism of perceptual actions, by which scientists understand interiorization:

- First phase. The transition of external processes with material objects;
- Second phase. It occurs in sensory processes leading up to subsequent practical actions;
- Third phase. A reduction occurs due to which the external orientation develops into an ideal one [24, p.116–118].

3 Materials and Methods

In the implementation of scientific intelligence used a set of theoretical and empirical methods: analysis of scientific, educational, and methodological resources and regulations governing the content of primary education; induction and deduction, systematization and comparison, which made it possible to reveal the leading categories of research; observation, psychological and pedagogical experiment, survey, the performance of diagnostic tasks, the study of the educational and perceptual activity of products, which verified the effectiveness of the developed influences, determination of the stages of pupils' mastery of visual-spatial processes. The homogeneity of the participants' samples of the psychological-pedagogical experiment was checked with one-factor variance mathematical-

statistical analysis performed through the specialized package *STATISTICA*.

The diagnostic technique is developed based on pedagogical quality: the quality of visual-spatial skills is modeled as a multilevel property consisting of less generalized features – criteria and performance indicators. The respondents' sample was sufficient, covering 312 pupils, grouped into three equivalent groups – control and two experimental.

The experimental groups' pupils were divided into four groups: with medium, sufficient, high, and consistently high levels of visual-spatial skills with a predominance of sufficient and high. The control group pupils are divided into three groups: elementary, average, and sufficient levels of mastery visual-spatial skills with a specific weight of the average.

4 Results

The expected results of mastering by pupils of many primary educational branches are:

- The ability to navigate in the plane and space;
- To recognize, classify, model, and build geometric shapes;
- To correlate real objects with their models;
- To mark and place parts of the product on the plane;
- To reproduce the shape of objects with paints, graphic, and plastic materials;
- To write in small and large handwritten letters, etc. [13].

Achieving these results becomes possible under the conditions of high-quality visual-spatial sensory processes, which actualizes the problem of their purposeful formation.

The author of the article established that children have visual-spatial skills at the secondary level at the beginning of school. A system of developmental tasks aimed at the following results:

- Systematization of spatial standards, assimilation of normative names of spatial properties (first grade);
- Development of single-modal (visual) and bimodal (visual-tactile) methods of examination of the shape, size, and placement of objects in terms of their subject combination or perceptual comparison (second and third grades);
- Individual adjustment of sensory development of schoolchildren (fourth grade).

The effectiveness of the introduced influences was revealed. A more pronounced dynamics of mastering visual-spatial skills was recorded in the experimental groups, especially in the first one compared to the control ones.

Based on the considered essential features, we detail visual-spatial ability to perform internalized cognitive-perceptual actions based on acquired knowledge about spatial features and relationships of objects (shape, size, location) and skills of applying this knowledge in the survey of reality.

5 Discussion

A qualimetric assessment model has been developed to identify the success of students' mastering of the skills being studied.

In this model, the quality of spatial perception is presented in the form of a complex property, divided into characteristics of other hierarchy levels: criteria and indicators that have particular importance (priority). The sum of the weights of one level is equal to one.

The criteria for assessing visual-spatial skills are selected:

- The accuracy of distinguishing spatial features and relationships (indicators: distinguishing simple geometric shapes by forms and size, complex shapes by the placement of elements);

- Mastering the normative names of spatial features and relations (indicators: use and understanding of the names of shape, size, placement of geometric figures);
- Awareness of classification and serial ordering of geometric objects (indicators: classification of figures by shape, serialization of figures by size in a given order);
- Reproduction of spatial features and relations (indicator: reproduction of the complex shape of objects that differ in shape and location of elements).

Regarding the importance of certain criteria, we will make some explanations. Since memorization of appropriate words is a necessary but not decisive indicator of the formation of children's perceptual ideas, the lowest weight is set for tasks to understand the names of spatial properties [20, p.14]. Among the operations of distinguishing the shape, size, and placement of objects of higher importance is given to recognizing form. It is the most informative feature in the perception of space. Other criteria and indicators are given equivalent weight (Table 1).

Table 1: The qualimetric model for assessing the quality of visual-spatial skills of primary school children

Criteria	Validity	Indication	Validity	Detection of indicators	Estimates of indicators	Estimates criteria
Distinction spatial properties (C ₁)	.3	distinguishing objects by forms (D ₁)	.4	K ₁	D ₁ = .4 K ₁	C ₁ = .3 (D ₁ + D ₂ + D ₃)
		distinguishing objects by size (D ₂)	.3	K ₂	D ₂ = .3 K ₂	
		distinguish objects by placement of elements (D ₃)	.3	K ₃	D ₃ = .3 K ₃	
Assimilation of names of spatial properties (C ₂)	.1	use of spatial properties names (D ₄)	.5	K ₄	D ₄ = .5 K ₄	C ₂ = .1 (D ₄ + D ₅)
		understanding the names of spatial properties (D ₅)	.5	K ₅	D ₅ = .5 K ₅	
Arrange objects (C ₃)	.3	classification of objects by form (D ₆)	.5	K ₆	D ₆ = .5 K ₆	C ₃ = .3 (D ₆ + D ₇)
		serialization of objects by size (D ₇)	.5	K ₇	D ₇ = .5 K ₇	
Reproduction of spatial properties (C ₄)	.3	reproduction of complex shapes of objects (D ₈)	1	K ₈	D ₈ = K ₈	C ₄ = .3 D ₈
Σ	1	Quality of visual spatial skills				C ₁ + C ₂ + C ₃ + C ₄

Diagnosis consisted in the implementation by pupils of the following operations:

- The choice of figures identical to the sample in shape, size, and placement of elements;
- Naming the spatial properties of objects and selecting objects by the name of these features;
- Division of geometric figures into groups and arrangement of similar figures in a given order – growth, decrease in size and mixing;
- Reproduction of complex figures that differ in the shape of the elements, their mutual placement, position in the whole figure, the angle of the asymmetric detail [2, p.77-78].

The input diagnosis results showed that first-graders with absolute success (quality score – 1) distinguished between planar and three-dimensional shapes (circle, oval, triangle, rectangle, square; ball, cube, cylinder, cone). With lower performance

(0.56), pupils chose shapes by size, comparing objects of the proportional size (similar circles, triangles, and squares) more accurately than shapes that differed in two parameters at the same time (trapezoids, the same height and different lengths of bases). The results of distinguishing complex figures were even lower (0.454): respondents usually correctly chose two objects from the proposed five, without considering other positions of the parts relative to the main part and each other, the distance between them, the rotation of asymmetrical elements.

First-graders experienced significant difficulties in using the verbal notation of spatial properties (0.329). Among the plane shapes, the children accurately named a circle and a square, demonstrating poor memorization of the names of an oval, triangle, or rectangle; pupils did not mark three-dimensional figures at all. Most size relationships (even circles of different sizes, triangles of different heights, rectangles of different lengths) were characterized by the universal notions of «big/small». Spatial relationships were more accurately named in the vertical placement of figures (top/bottom) than horizontal (left/right). Simultaneously, there was a reasonably high degree of understanding of the normative designations of shape, size, and placement – the quality score (0.848) was significantly closer to absolute. The errors were caused by unstable assimilation of the names of three-dimensional figures.

The effectiveness of the classification tasks (0.614) indicates difficulties in distinguishing among geometric figures of individual sets and subsets. Pupils had to divide the presented figures into circles and polygons; polygons – into triangles and quadrilaterals; quadrilaterals – into rectangles and squares. When dividing objects into circles and polygons, the respondents correctly separated the circles, referred to the polygons as rectangles, leaving out triangles and squares; rectangles were more often considered rectangles, less often squares. The series' size did not cause many difficulties (0.784); it was wrong to place the figures mixed with different sample elements.

In reproducing the figures (quality score – 0.125), pupils had to select the desired shape constructs and place them in a given ratio. If all children completed the first task successfully, almost 50% of pupils did not cope with the second task. First-graders assumed replacement of mutual arrangement of components and position in the whole figure, convergence, or removal of details, giving an asymmetric element of the opposite direction.

Thus, when entering school, children have more formed a purely sensory stage of visual-spatial perception, sufficient to adequately distinguish between simple shapes and sizes, which varies proportionally by one parameter. Perceptual and cognitive stages of sensory processes that require analytical distinction and reproduction of complex shape, size by several parameters, naming of spatial properties, systematization of spatial standards are not finally formed. The overall quality of first-graders' visual-spatial skills corresponds to a score of 0.517 relative to the unit (ideal grade). According to the individual success of the participants of the experiment, they were divided into groups with elementary (27%), average (54%), sufficient (19%) quality levels, and the absence of children with a high level of mastery of the studied skills was recorded.

The formative experiment is organized as a contrast of two types of situations: first, the lack of input didactic influence and its presence, which involved participation in the experiment of control and experimental groups of pupils; secondly, the different degree of intensity of the input stimulus, and this required the involvement of two experimental groups of pupils. In the first experimental group, the learning-perceptual process was implemented according to option A, which was based on a combination of monomodal (visual) and bimodal (visual-tactile) directions of development of spatial perception (high degree of the input stimulus intensity). In the second group, according to option B, the learning-perceptual process aimed at the realization of only the monosensory (visual) direction of the formation of spatial perception (moderate degree of intensity of the input

stimulus). No special perception development program was implemented in the control group.

The experimental effects were carried out in three stages. The purpose of the first (motivational-orientational) stage was to generalize children's existing sensory experience, the formation of new reference ideas about the shape, size, and location of objects of reality, fixation on the spatial images of normative verbal symbols. For both experimental groups, input incentives were provided under option B, the time limits of the stage covered the first year of schooling. In the performed exercises, first-graders chose objects by the name of spatial properties, called the presented objects' spatial properties. They classified shapes into planar and three-dimensional, planar into lines, segments, rays, angles, polygons, and circles. They placed and moved objects in given spatial relationships and directions. Then carried out serialization of objects in descending or increasing order of total size, length, height, thickness; circled geometric shapes with tracing paper, templates, and stencils; marked and cut out elements of applications, modeled architectural structures, made products in the technique of modeling [2, p.421–425].

The second (performing-transforming) stage, which included the second and third years of primary education, was aimed at teaching pupils rational ways to apply the learned standards in the examination of spatial qualities of objects, the gradual transfer of sensory operations from external to internal performance. The second class focuses on the development of detailed sensory comparisons of objects based on object manipulations with them; in the third class – reduction and stereotyping of sensory comparisons, their consistent transfer to the ideal plan.

Visual and visual-tactile perceptual operations were subject to improvement in the pupils of the first experimental group. In the first case, the children updated their knowledge of geometric shapes, the relationship between them in size, laid out objects on matrix cards with a given order of shapes and gradation of magnitude. They identified trapezoids by object combination (sequentially inserted figures in the «window» to the coincidence of contours), as well as based on visual comparison without alignment of objects (combined lines of the same size figures). Also recognized the given figures and their placement on reproductions of paintings, chose figures of complex shape according to the sample, comparing the main parts and small elements, selected puzzles, attaching objects to the sample, taking into account the shape, placement, and angle of details. Then reproduced the complex shape of objects, superimposing elements on the contour image or focusing on a distant sample (made geometric mosaics, compositions). Thus, children transformed the given spatial arrangements of figures [2, p. 445–448]. In the second case, pupils combined the elements of the mosaics:

- Inspected and traced with the index finger the inner contour of the recess, alternately applied inserts to it, turning them in different directions to match the contours;
- Reproduced a complex shape in the technique of plasticine – marked the contours of the figure according to the pattern, laid out silhouette lines with plasticine flagella, filled the inner plane of the image with small balls of peas made of plasticine;
- Drew geometric shapes with the index finger, the edges of the palms on the sand [2, p.464–466].

Learning and perceptual activity in the second experimental group were organized based on the formation of only visual-spatial perception.

The third (control-corrective) stage coincided with the fourth year of primary education and was focused on identifying and adjusting individual achievements in pupils' acquisition of the studied skills.

The results of the final diagnosis of the visual-spatial sensory sphere of junior schoolchildren prove positive changes in both

the control and in both experimental groups, but with the highest quantitative data in the first experimental group (Table 2).

All respondents confirmed the absolute success of the distinction of a simple form, which allows us to consider the complete formation of this operation. In particular, in experimental groups, expression dynamics are illustrated by changes in geometric figures' resolution by size. It is a question of trapezoid choices that have identical height and differ in the length of bases.

Pupils of the experimental groups accurately differentiated figures in which the difference in the size of the bases was most noticeable – 2 cm.

Slightly weaker – figures with a difference in the length of the bases 1 cm. With difficulty – those figures whose bases differed slightly in size – 0.5 cm. Representatives of the control group had difficulty distinguishing any pairs of trapezoids, the latter – especially. Simultaneously, all fourth-graders recognized objects with a proportional increase/decrease in total size (similar circles, triangles, squares) correctly.

Table 2: Assessments of the quality of the visual-spatial skills of primary school children (average values)

Criteria	Validity	Indication	Validity	Detection of indicators			Estimates of indicators			Estimates criteria		
				CG	EG-1	EG-2	CG	EG-1	EG-2	CG	EG-1	EG-2
Distinction of spatial properties	.3	distinguishing objects by forms	.4	1.00	1.00	1.00	.400	.400	.400	.219	.252	.250
		distinguishing objects by size	.3	.622	.712	.698	.187	.214	.209			
		distinguish objects by placement of elements	.3	.475	.754	.746	.143	.226	.224			
Assimilation of names of spatial properties	.1	use of spatial properties names	.5	.415	.763	.762	.207	.382	.381	.071	.088	.088
		understanding the names of spatial properties	.5	1.00	1.00	1.00	.500	.500	.500			
Arrange objects	.3	classification of objects by form	.5	.552	.703	.699	.276	.351	.350	.208	.232	.231
		serialization of objects by size	.5	.836	.848	.841	.418	.424	.420			
Reproduction of spatial properties	.3	reproduction of complex shapes of objects	1	.185	.613	.582	.185	.613	.582	.055	.184	.175
Σ	1	Quality of visual spatial skills (final diagnosis)						.553	.756	.744		
		Quality of visual spatial skills (input diagnosis)							.517			
		Dynamics of visual spatial skills quality						.036	.239	.227		

The shifts in distinguishing the complex shape of objects are significant. First, the control group found children who successfully selected one, two (in 58% of cases), three, and four figures, but no one was able to choose five identical lenses. In the experimental groups of 23%, all five pairs were correctly identified, and those who made the exact choice of only one figure were not identified at all. Second, the typology of errors has narrowed. Their spectrum in the control group was the same as during the statement test: pupils did not focus on the position of the elements relative to the main part, the relative position, the distance between them, the angle of asymmetric details. In the experimental groups from this list, only two inaccuracies do not take into account the angle of the parts and the distance between them (the first occurred more often than the second).

Regarding the mastery of the names of spatial properties, we note that all control participants achieved full awareness of the normative verbal symbols. However, differences were found in the use of the corresponding words. Inaccuracies cause the insignificant dynamics of the manifestation of this criterion in the control group in naming the shape of planar and spatial figures – oval, cylinder, cone, pyramid; replacing the names of height, length, thickness with generalized options «big» or «small»; errors in determining the relationship along the horizontal axis («left», «right»). The noticeable dynamics of assimilation of verbal characteristics of spatial features in experimental groups can be explained by the ability of pupils (73% in the first and 65% in the second) to name the shape of planar figures adequately, relative size, placement on horizontal and vertical axes («left», «right», «top», «bottom»). Only the designations of three-dimensional figures – a pyramid or a cone – were wrong.

Implemented didactic influences proved to be productive in forming ideas about classification relations in spatial standards. Children in the control group were relatively successful in

classifying polygons by the number of angles and separating circles from them. Still, trapezoids were often not classified as quadrilaterals or polygons. Representatives of experimental groups also made mistakes, but much less inadequate solutions were observed.

A series of geometric figures also underwent positive transformations. Fourth-graders adequately constructed rows of objects to increase (decrease) in their size gradually and did not always accurately repeat the sequence of objects laid out in a mixture. However, the contingent of students who placed the figures most successfully became more noticeable in the experimental groups – 23% in the first group and the same number in the second one versus 8% of such persons in the control group.

The strongest dynamics of change is evidenced by data on the reproduction of complex shapes of objects. In the control group, these transformations were manifested in a difference in the percentage distribution of children by the options for assembling the figure from the details («did not reproduce any object» or «reproduced one object»). The results were 26/74 instead of 50/50 during the input diagnosis. In the experimental groups, the options for performing the task were different: «did not reproduce any object», «reproduced one/two/three/four objects». The differentiation of pupils in the first experimental group by this set of options is reflected in the percentage of 4/8/42/35/11, the second group – 4/8/50/27/11. In reproducing the shape, the control section participants assumed the same errors as in its distinction is not taking into account the location of the elements relative to the main part and each other, the distance between them, the angle of asymmetrical parts. However, the intensity of incorrect design decisions in the experimental groups was much weaker than the control. Simultaneously, the inadequate reflection of the perspective of the elements and the distance between them remained quite stable.

In characterizing the methods of examining spatial properties, we will emphasize the high speed of their flow and absolute efficiency to distinguish between the simple shape and size of objects by one parameter. In the perception and reproduction of figures of complex shapes or figures that differ in size in several parameters, visual correlations were carried out by pupils more slowly and less effectively, which indicates the imperfection of their internalization. But as a result of purposeful training, these actions have a strong zone of immediate development and become effective with some help. Thus, the teacher focused the children's attention on inaccurate choice or reproduction of complex figures on the leading spatial features by the questions:

- Check whether the distance between the details is taken into account/reflected correctly?
- Is the lower right element in the selected/folded shape rotated in the same way as in the sample?

It was sufficient for the experimental groups' participants to perform more careful visual correlations, and there was no need to identify the sample and the selected/reproduced figure by superimposing them. Pupils in the control group did not notice the differences between the sample and the selected or constructed model, and if they found discrepancies, for example, in the angle of the asymmetric element, they could not correct its position even when superimposing the examined objects.

These examples show the positive impact of the implemented learning and perceptual measures on developing different ways of perceiving the spatial properties objects and, most importantly, on the ability to apply these skills in specific situations.

Measurement of visual-spatial sensory skills reflects the average level of their formation in pupils of the control group (0.553), high – in pupils of the first experimental group (0.756), and sufficient – in fourth-graders of the second experimental group (0.744). The increase in dynamics is as follows: 0.036 – in the control group, 0.239 – in the first and 0.227 – in the second experimental group. The conclusion that these groups do not belong to one general population is illustrated by the graph obtained from the one-way analysis of variance ANOVA. Since the indicator of the F-criterion > 1.00 (111.25), and the significance level of the statistical conclusion $p < 0.05$ (0.00), we can say that the average values of the samples differ: the control group is markedly different from the experimental, which are more homogeneous with each other (Figure 1).

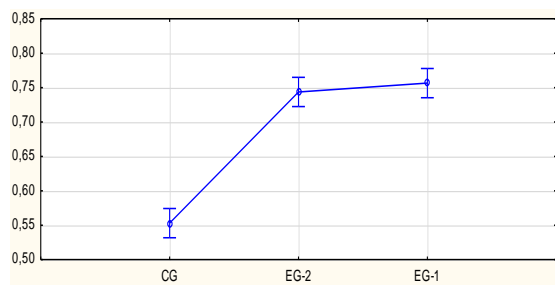


Figure 1 – Graphic model of similarity of average values of control and experimental groups

In each group of pupils were divided by qualitative levels of mastery of visual-spatial skills. In the control group, students with elementary (18%), intermediate (59%), and sufficient (23%) levels were selected; in the first experimental – with medium (12%), sufficient (46%), high (30%) and consistently high (12%) levels; in the second experimental – at the same levels, but with a slightly different distribution of persons – 13%, 48%, 27%, 12%, respectively.

6 Conclusion

This research work is allowed to define visual-spatial ability to perform internalized cognitive, perceptual actions based on

acquired knowledge about spatial features and relationships of objects (shape, size, location) and applying this knowledge in the survey of reality.

In the pedagogical experience, younger pupils master visual-spatial skills in general at the intermediate level. Familiar operations related to distinguishing between the simple shape and size of objects by one parameter are more common in children; cognitive operations consist of distinguishing and reproducing a complex form, quantities by several parameters, naming spatial properties, systematization of spatial images, are less developed.

Formative didactic influences are designed according to the intergroup multilevel plan for two experimental and one control group of pupils. According to option A, which provided for a combination of monomodal (visual) and bimodal (visual-tactile) areas of improvement of spatial perception, option B aimed to implement only monosensory lines of developing spatial perception.

The positive dynamics of visual-spatial skills formation in pupils of elementary school is proved. Improving the quality of introductory and cognitive-perceptual operations and applying the acquired sensory values in the examination of objects of reality was the most powerful in the experimental groups, especially in the first of them, compared with the control group. As a result of the introduced didactic influences, the experimental groups' students mastered visual-spatial skills mainly at sufficient and high-quality levels, the control group's children – at the average level.

Literature:

1. Amir, M.F., Fediyanto, N., Rudyanto, H.E., Nur Afifah, D.S., & Tortop, H.S. (2020). *Elementary students' perceptions of 3Dmetric: A cross-sectional study*. *Heliyon*, 6(6). <https://doi.org/10.1016/j.heliyon.2020.e04052>.
2. Barbashova, I.A. (2018). *Dydaktychna systema sensohno rozvytku molodshykh shkoliariv: teoriia i praktyka* [Didactic system of sensory development of elementary schoolchildren: theory and practice]. Melitopol: Vydavnychiy budynok Melitopolskoi miskoi drukarni [in Ukrainian].
3. Bernstein, N.A. (1997). *Biomehanika i fiziologija dvizhenij* [Biomechanics and physiology of movements]. Moskva: Institut prakticheskoy psihologii; Voronezh: MODJeK [in Russian].
4. Casey, B.M., Dearing, E., Dulaney, A., Heyman, M., & Springer, R. (2014). Young girls' spatial and arithmetic performance: The mediating role of maternal supportive interactions during joint spatial problem solving. *Early Childhood Research Quarterly*, 29, 636–648. doi:10.1016/j.ecresq.2014.07.005C.
5. Chao, J.Y., & Liu, C.H. (2017). A Case Study on the Spatial Conceptualization Abilities for Sixth Grade Elementary Students from Urban, Suburban and Remote Schools. *Eurasia Journal of Mathematics, Science & Technology Education*, 13(6), 1675–1686. <https://doi.org/10.12973/eurasia.2017.00691a>.
6. Cheng, Y.-L., & Mix, K.S. (2014). Spatial training improves children's mathematics ability. *Journal of Cognition and Development*, 15, 2–11. doi:10.1080/15248372.2012.725186.
7. Jirout, J.J., & Newcombe, N.S. (2015). Building blocks for developing spatial skills: Evidence from a large, representative U.S. sample. *Psychological Science*, 26,302–310. doi:10.1177/0956797614563338.
8. Khorunzhiy, V.I. (2019). *Albom z dyzainu i tekhnolohii. 2 klas* [Album on design and technology. 2 gr.]. Ternopil: Navchalna knyha – Bohdan [in Ukrainian].
9. Kondratenko, S.V. (2016). *Rivni rozvytku prostorovykh uivavlen u molodshykh shkoliariv z porushenniamy zoru* [Levels of development of spatial representations at younger schoolchildren with visual impairments]. *Osvita osib z osoblyvymy potrebamy*, 11, 83–91 [in Ukrainian].
10. Likouri, A., Klonari, A., & Flouris, G. (2017). Relationship of Pupils' Spatial Perception and Ability with Their Performance in Geography. *Review of International Geographical Education*

Online, 7(2), 154–170. <http://www.rigeo.org/vol7no2/Number2Summer/RIGEOV7-N2-2.pdf>.

11. Masol, L.M., Haidamaka, O.V., & Kolotylo, O.M. (2018). *Mystetstvo. 1 klas* [The arts. 1 gr.]. Kyiv: Heneza [in Ukrainian].
12. Medvedok, L.H., & Palamar, O.M. (2019). Osoblyvosti dotykovoho sprymannia prostorovykh elementiv u nezriachykh uchniv molodshykh klasiv [The features of tangent perception of spatial elements in blind primary school pupils]. *Psykhologo-pedahohichni stratehii bezbariernoho osvithoho seredovyscha dlia ditei z porushenniamy zoru, Materialy vseukrainskoi naukovo-praktychnoi konferentsii*. Kyiv: Interservis, 32–34 [in Ukrainian].
13. Savchenko, O.I. (2019). *Typova osvithnia prohrama. 1–2 klas* [A typical educational program. 1–2 gr.]. [in Ukrainian]. Retrieved from http://mon.gov.ua/storage/app/media/za_galna%20serednya/programy-1-4-klas/2019/11/1-2-dodatki.pdf.
14. Shehter, M.S. (1981). *Zritel'noe opoznanie: zakonomernosti i mehanizmy* [Visual recognition: patterns and mechanisms]. Moskva: Pedagogika [in Russian].
15. Skvortsova, S., & Onopriienko, O. (2019). *Nova ukrainska shkola: metodyka navchannia matematyky u 1–2 klasakh zakladiv zahalnoi serednoi osvity na zasadakh intehratyvnoho i kompetentnysnoho pidkhodiv* [New Ukrainian school: methodology teaching mathematics in grades 1–2 of general secondary education institutions on the basis of integrative and competence approaches]. Kharkiv: Ranok [in Ukrainian].
16. Skvortsova, S.O., & Onopriienko, O.V. (2018). *Matematyka. 1 klas* [Mathematics. 1 gr.]. Kharkiv: Ranok [in Ukrainian].
17. Synyova, Ye.P., Rykov, S.O., Fedorenko, S.V., Mohilevskiy, S.Iu., Sharhorodska, I.V., & Denysiuk, L.I. (2017). *Medyko-psykhologo-pedahohichni osnovy korektsii zorovykh spryman u ditei z porushenniamy zoru* [Medical-psychological-pedagogical bases of correction of visual perceptions in children with visual impairments]. *Visnyk KhNPU imeni H.S. Skovorody. Psykholohyia*, 56, 188–198 [in Ukrainian]. <https://doi.org/10.5281/zenodo.888751>.
18. Totikova, G., Aldabergenov, N., Salmirza, J., Nazarova, G., Gurbanova, A., Madiyarov, N., & Yessaliyev, A. (2019). Criteria-based Assessment of Spatial Representations in Primary School Students. *Elementary Education Online*, 18(2), 461–471. <http://doi.org/10.17051/ilkonline.2019.561888>.
19. Venger, L.A. (1969). *Vospriiatie i obuchenie: (doshkol'nyj vozrast)* [Perception and learning: (preschool age)]. Moskva: Prosveshhenie [in Russian].
20. Venger, L.A. (1976). *Genezis sensornykh sposobnostej* [Genesis of sensory abilities]. Moscow: Pedagogika [in Russian].
21. Verdine, B.N., Golinkoff, R.M., Hirsh-Pasek, K., Newcombe, N.S., Filipowicz, A.T., & Chang, A. (2014). Deconstructing building blocks: Preschoolers' spatial assembly performance relates to early mathematical skills. *Child Development*, 85, 1062–1076. doi:10.1111/cdev.12165.
22. Wang, L., & Carr, M. (2014). Working memory and strategy use contribute to gender differences in spatial ability. *Educational Psychologist*, 49, 261–282. doi:10.1080/00461520.2014.960568.
23. Zaporozhec, A.V., & Zinchenko, V.P. (1982). *Vospriiatie, dvizhenie, dejstvie* [Perception, movement, action]. Poznavatel'nye processy: oshhushhenija, vospriiatie. Moscow: Pedagogika, 50–79 [in Russian].
24. Zaporozhets, A.V. (1986). *Izbrannye psihologicheskie trudy* (T. 1) [Selected psychological works. Vol. 1]. Moskva: Pedagogika [in Russian].

Primary Paper Section: A

Secondary Paper Section: AM

PSYCHOLINGUISTIC FOUNDATIONS FOR THE FORMATION OF PHONEMATIC SKILLS OF YOUNGER SCHOOLCHILDREN

¹IRYNA BARBASHOVA

*Berdiansk State Pedagogical University, 4, Schmidt Str., Zaporizhia Reg., 71100, Berdyansk, Ukraine
email: "i.a.barbashova@gmail.com"*

Abstract: The article interprets the results of empirical-theoretical research of the phonematic skills of junior schoolchildren. The urgency of the problem is determined by primary school's tasks on the formation of children's ability to explore speech, the need for effective organization of teaching students phonematic perception. The research was performed using a set of methods: theoretical – allowed to identify the basic provisions and formulate conclusions of scientific work; empirical – provided the association of respondents on the qualitative levels of phonematic perception, checking the effectiveness of the implemented didactic influences; data processing – used to establish the interdependencies between the obtained indicators, to determine the structure of the observed units. Phonematic skill as a psycholinguistic phenomenon, its structure, and mechanism of formation are defined. Prospects for further scientific research are outlined in the context of the integrative development of phonematic and musical hearing of junior schoolchildren.

Keywords: Junior schoolchildren, methods of examination of speech sounds, phonematic perception, phonematic skill, standards of speech sounds.

1 Introduction

One of the first-grade school tasks is to form the ability to speak the language fluently, study speech, experiment with sounds, words, and phrases [12]. Execution of the set task actualizes a problem of improvement of pupils' speech hearing, demands the effective organization of training of phonematic perception in 1–4 classes.

Important for scientific intelligence are the provisions of the theory of the formation of perceptual actions concerning their operational composition and mechanism of creation [14, 21, 25]; linguistic data on the acoustic characteristics of sounds and their pronunciation [8]. The psycholinguistic context of the phonematic sensory processes of a child's personality is illuminated by theoretical conclusions about the interaction of motor and acoustic components in speech perception; connection of sensory, perceptual, and cognitive levels of input sound signal processing [7, 9, 15, 27, 28]; interdependence of perceptual and articulatory bases of language: the first of them consists of memorized standards of phonetic units, the second – language and motor skills of the pronunciation of sounds [1, 3, 6, 16].

The purpose of the article is to describe the process and interpret the results of empirical-theoretical research of junior schoolchildren's phonematic skills. The stated goal is specified in several tasks:

- To define phonematic skills as a psycholinguistic concept;
- To identify levels of students' mastery of phonematic skills;
- To substantiate the system of educational and perceptual tasks to improve the perception of speech sounds;
- To prove the effectiveness of the developed developmental influences.

2 Literature Review

Of great interest is the discussion by foreign authors of issues that emphasize the complexity of the relationship of perceptual and cognitive mechanisms of phonological-phonematic perception, in particular the impact of phonematic awareness of primary school students on the formation of reading skills [10, 16], perception bilingual students of phonetic contrasts of non-native language [4, 18], children's ability to distinguish the voices of speakers by gender timbre characteristics [11, 19], etc.

Equally important is the assessment of didactic support for the development of phonematic perception of students, identification of sensory and developmental resources of modern educational programs, educational and methodical publications [2, 5, 17, 20].

Thus, the problem raised is multifaceted, requires rethinking and integration of various scientific information, taking into account the new challenges facing primary education at the present stage of its reform.

3 Materials and Methods

Achieving the goal required the use of a set of methods: theoretical – allowed to identify the basic provisions and formulate the conclusions of scientific intelligence (analytical-synthetic, induction-deductive, generalization and systematization); empirical – provided the association of respondents on the qualitative levels of phonematic perception, testing the effectiveness of the implemented didactic influences (psychological and pedagogical experiment, observation of the course and processing of products of the educational and perceptual process); data processing – made it possible to establish interdependencies between the obtained indicators, determine the structure of the observed units.

The sample was randomized – random in designing, serial – consisted of contact and relatively homogeneous groups (classes), sufficient – included 208 younger students, grouped into equivalent groups – experimental and control.

The practical sample students were divided into four groups: with medium, sufficient, high, and consistently high levels of phonematic skills with the predominance of sufficient and high. The control sample participants were divided into three groups: with low, medium, and sufficient levels of mastery of phonematic skills with a specific weight of the average.

4 Results

In interpreting the phonematic skill, the author proceeded from understanding the basic concept of skill as a way of acting, provided with a set of acquired knowledge and skills. However, phonematic skill has specific characterological features, which are the subject of this study and require detailed coverage.

The first position in the definition of phonematic skill is its consideration as a perceptual action – a structural unit of perception manifested in the transformation of external information and the formation of images of objects and phenomena of reality.

Of considerable interest is the establishment of the internal structure of phonematic skills. Well-known is the provision of coordinated functioning in the sensory reflection of two types of perceptual actions – introductory and cognitive.

The purpose of introductory phonematic action is to form a primary verbal image. Its means are motor copies created by effector components. The main importance of constructing these copies is the movements of the articulatory organs, the head's activities to localize the source of the audible signal. Operations of acquaintance action make such sequence: search and finding of a sound among the general stream of speech stimuli, allocation of its most informative properties, acquaintance with them. As a result of performing these operations, a basic sound image is created [14, p.186, 21, p.80, 25, p.63, 28, p.298].

The purpose of cognitive phonematic action is to compare the basic sound image with a memorized class (category) of verbal images [21, p.83]. The means of carrying out the analyzed action are sensory standards – the "lattice" of samples of speech sounds produced by society.

It is known that standards of any modality are systemic associations of components ordered based on classification and serialization [21, p. 102]. Naturally, the question arises whether these relationships of elements are observed in the system of phonemes of the Ukrainian language?

In our opinion, the answer should be in the affirmative. Indeed, speech sounds are systematized in general according to the principle of classification, divided into vowels and consonants with subsequent grouping: vowels – with the participation of the lips, the degree of the lifting of the tongue, place of articulation, open mouth, emphasis in the word; consonants – with the participation of voice and noise, the method and place of creation, the degree of palatalization, sound and acoustic expression. Serial relations are inherent in some vowel sounds and their variants ([e] – [e^h], [y] – [y^h]). Probably, paired consonant sounds – sonorous and deaf ([d] – [t], [d'] – [t'], etc.), hard and soft ([d] – [d'], [t] – [t'], etc.), whistling and hissing ([s] – [sh], [z] – [zh], etc.) – are also short two-element serial series, because the sounds of acoustic pairs are quite similar in place and method of creation and differ in only one parameter – the presence/absence of voice, increased position of the back of the tongue, the characteristic noise.

The system of standards of speech sounds determines the specific operational composition of cognitive phonematic action. Thus, the subject consistently compares the basic verbal image with stored in memory standards, determines the class of the basic sound image by its multilevel categorization, makes inferences about the belonging of a speech unit to a hierarchical class, which is manifested in a brief description of the phoneme differential features (for younger students the smallest set of these characteristics covers loudness, stress or unstressed, loudness, deafness or sonority, softness or hardness), updates all other information about this class and subclass of sounds [22, p.56, 14, p.199–200].

The generalized structure of phonematic sensory ability is presented in Table 1.

Table 1: The structure of phonematic skills

Structural elements	Phonematic perceptual actions	
	Introductory	Cognitive
Goal	Formation of the primary verbal image	Assignment of the presented object to the class (categories) fixed in memory
Means	Motor copies created by effector components	The system of sensory standards of speech sounds is a "lattice" of phonemes
Operations	Search, finding the object among the flow of speech stimuli, selection of informative properties in the object, acquaintance with the selected properties	Comparison of the basic image of the sound signal with the mastered standard, categorization of acoustic and articulatory properties of sounds, interpretation of differential features of phonemes
Result	Basic image	Adequate image

The second position in the characterization of phonematic skill involves the disclosure of the mechanism of its formation, which is based on the phenomenon of internalization – the transformation of external processes into internal ones. Investigating the internalization of perceptual actions, Zaporozhets distinguishes three stages in it: at the first stage the problem is solved in practical terms, through external actions with objects; on the second – sensory processes become perceptual actions that precede the next practical operations; on the third – perceptual actions are reduced, reduced, the external orienting-research action grows into an ideal one [26, p.116–118].

This mechanism in the transformation of phonematic processes is different because speech sounds are not objects of reality [13]. It is impossible to operate on them as objects [15]. However, in the method of primary education, there are well-known ways to give the properties of speech sounds certain objectivity with the help of special marks, counters [20]. In the author's opinion, the internalization of phonematic perceptual actions is carried out in the following phases: loud and stressed pronunciation of the sounds of the word with parallel filling with chips of the sound

scheme (the first stage); whispering of a token and modeling by fragments of its sound form (the second stage); condensed sound analysis – without chips, with verbal identification of phonemes (third stage).

Given the above, it is possible to formulate the following definition of phonematic ability – it is mastered by the subject method of performing internalized introductory-cognitive perceptual actions, provided with a set of acquired standards of speech sounds and skills of their use in the examination of phonetic phenomena.

Let us characterize the quality of children's mastering of phonematic skills in the modern learning experience. The evaluation criteria were selected: a) distinction of phonemes; b) establishing classification and serial relations between them; c) reproduction of word sounds.

The language material for the sensation of individual sounds were tokens, the examined phonetic units in which they occupied a strong position; the respondents were asked to react to the given sound in a certain way (by clapping their hands); awareness of the classification arrangement of phonemes was checked by assigning the heard sound to a certain group, serial - by selection to the consonant of the corresponding acoustic pair; reproduction of the sound structure of a word included articulation and marking of its sounds with chips [2, p.80–81].

During the diagnosis, it was found that at the beginning of school, children accurately differentiate vowel sounds, but have complications in the perception of individual consonants – sonorous [r], [l], their soft correlates [r'], [l'], whistling and hissing [z], [zh], their stunned paired variants [s], [sh]. Thus, for first-graders, the main feature of speech sounds is a voice; students do not fully distinguish the noise's essential properties.

Dividing the sounds heard into vowels and consonants, first-graders correctly categorized vowels and the majority of consonants, sometimes making mistakes in assigning them [ḍz] (8% of respondents) and quite often – [y] (73% of respondents). In the further grouping of consonant sounds, more erroneous decisions were stated. For example, 62% of students did not consider the consonant [ts], 73% of children did not consider the consonant [ḍz], and any respondent did not characterize the sound [y] as a soft consonant. The experiment participants performed a series of consonants in terms of hardness/softness more precisely in the case of matching a paired hard sound to a given soft one. Still, the opposite arrangement of acoustic pairs was performed with less efficiency.

In the reproduction of the phonetic structure of the given tokens, the students quite accurately determined the components of the fusion of the type hard consonant + vowel ("yenot", "pivnyk"); successfully identified hard consonants outside syllables ("yenot", "pivnyk"), with slightly lower results – soft ("kin"); occasionally omitted consonant sounds for their coincidence ("pivnyk" – "pinyk"). Significant complications were caused by the analysis of the combination of type soft consonant and vowel: students modeled these syllables as one soft consonant (for example, [k'] in the word "kin") or replaced them with a combination of paired hard consonant and vowel ("kin" – [k], [i], [n']); the merging of the soft consonant [y] with the vowel was always pronounced inseparably by the students [ye] in the word "yenot", denoting it by the symbol of the vowel sound. In the author's opinion, the children's low awareness of sound and letter concepts focuses mostly on the graphic rather than the phonetic form of the token. An additional argument for this statement is the complete inability of respondents to reproduce the word according to its model ("mak", "zhuk", "lys", etc.).

Thus, six-year-old schoolchildren are most likely to form introductory operations that reflect a purely sensory stage of phonematic perception; but cognitive operations, which correspond to the perceptual and cognitive stages of phonematic perception and are related to mastering the system of standards and skills of their application in the examination of the sound form of words, develop at a slower pace. The total quality of

phonematic skills of 1st-grade students corresponds to an indicator of 0.52 relative to the ideal grade of 1. According to individual performance, the participants of the experiment with low (27%), medium (54%), sufficient (19%) quality levels were distinguished, while a high level of mastery of the studied skills was not detected.

The logic of the molding experiment was as follows. At the motivational-orientational stage (first grade), didactic influences were focused on the expansion and systematization of existing in children's reference ideas about speech sounds. Performing the provided educational and perceptual tasks – the teacher's instructions to students on the content and method of phonematic actions – first-graders found the difference between speech sounds from the sounds of the natural environment, observed by ear, sight, and touch the work of articulatory organs; classified sounds into non-speech and speech, speech – into vowels/consonants, vowels – into stressed/unstressed, consonants – into hard/soft, ringing/deaf; established serial relations between paired consonants in terms of hardness/softness and sonority/deafness of sound.

The performance-transformation stage covered the second and third years of study: in the second grade, attention was paid to the development of students' detailed methods of examination of sounds based on manipulations with symbolic marks; in the third class – the collapse and stereotyping of sound-examination operations, their translation into an ideal form. The acquisition of these methods of phonematic perception was facilitated by educational and perceptual tasks in which students updated their knowledge of speech sounds, systematized sounds by articulatory properties and marked them with chips, practiced correct sound pronunciation; selected graphic models for words, words for graphic models; carried out a detailed analysis of the

sound shell of tokens: emphasized the sounds, modeled their properties with graphic symbols, synthesized individual sounds into words according to the scheme; performed condensed sound analysis – whispered sounds, determined vowels and consonants, distinguished between vowels stressed and unstressed sounds, among consonants – calls and deaf, hard and soft; converted the given consonants into opposite paired sounds.

Control and correctional stage (fourth grade) – is devoted to assessing the degree of solving the problems of previous stages, analysis of deviations of the obtained results from the planned, individual adjustment of students' educational and perceptual activities depending on the nature of the detected deformations.

Experimental didactic influences significantly supplemented the traditional method of forming phonematic hearing, increasing the share of developmental tasks, especially in grades 2–4; were fully compliant with the program requirements; provided for the use of an extended set of graphic symbols of language units: in addition to models of vowels, consonants, hard and soft sounds – a circle, one or two dashes, indicating the free passage of air, its entry into an obstacle of varying complexity – younger students operated with additional chips/consonant deafness – with a short horizontal wavy line and a short horizontal straight line, which symbolize the vibration of the vocal cords or its absence [2, p.425–430, p.448–451].

According to the results of the formation of phonematic actions, the numerical values of quality criteria – distinction, classification and serial ordering of speech sounds, reproduction of speech sounds – indicate positive changes in both control and experimental groups with the prevalence of indicators in the second of them (Table 2).

Table 2: Qualimetric model for assessing the quality of phonematic skills (control section, average values)

Criteria	Validity	Indexes	Validity	Detection of indicators		Evaluation of indicators		Manifestation of criteria		Evaluation of criteria	
				CG	EG	CG	EG	CG	EG	CG	EG
Distinguishing speech sounds	.34	distinction of vowels	.20	1.0	1.0	.20	.20				
		distinction of consonants: hard, soft; loud, deaf	.80	.84	.87	.67	.70	.87	.90	.30	.31
Classification and series of speech sounds	.33	classification of speech sounds	.50	.72	.76	.36	.38				
		consonant series by hardness/softness; sonority/deafness	.50	.51	.71	.25	.35	.61	.73	.20	.24
Reproduction of the sound form of the word	.33	reproduction of word sounds based on a graphic model	1.0	.19	.58	.19	.58	.19	.58	.06	.19
Σ	1			Quality of phonematic skills (control section)				.56	.74		
				Quality of phonematic skills (statement section)						.52	
				Dynamics of formation of phonemic skills						.04	.22

5 Discussion

All participants in the control experiment confirmed the absolute success in distinguishing vowels; fourth-graders of both groups performed consonant recognition with slightly lower efficiency – single erroneous separations of soft sonorous [r], [l] and hard deaf [s], [sh] were revealed. However, the average quality scores are quite high (greater than 0.80 relative to the ideal score of 1), which allows us to conclude that this operation is in the final stage of formation.

The students of the experimental group classified speech sound with high success: they had no difficulties in dividing the heard

sounds into vowels and consonants, attributed the sound [y] to consonants, categorized [dz] as an inseparable merger, not a sequence of two sounds, differentiated most consonants by hardness and softness, sonority and deafness. Simultaneously, it is necessary to recognize the presence of errors in the further categorization of the mentioned sounds: some children could not accurately determine the affiliation [y] to the soft and sonorous consonants, [dz] – to sonorous consonants. In students of the control group as a whole did not cause difficulties only the first stage of ordering – classification of speech sounds into vowels/consonants (except for the sound [y], which is 8% of cases was attached to vowels), other units, including delimitation of consonants by ringing/deafness, remained mastered to a lesser

extent. However, these features cannot be called mass because the control group scores also reflect the sufficient quality of learning the classification relations in speech sounds (with average scores above .70).

There is a significant difference in the respondents' selection of serial acoustic pairs to the given consonant sounds. Thus, in the control group, fourth-graders' weight was quite specific (22%), who showed the lowest quality of establishing serial relations: adequately selected for soft consonants, even hard pairs, partly – for hard consonants sonority/deafness. The highest result was in the correct combination of pairs for hardness/softness of consonants and creating at least one pair for sonority/deafness, usually [b] – [p]. No one was able to perform the reverse operation of selection to a deaf consonant pair call.

The experimental group students, more precisely established pairs with both soft and hard consonants, selected the appropriate deaf consonant sounds for the sonorous ones, making mistakes only in the opposite order of order – selection to the given deaf consonants of their sonorous correlates. In 27% of students, the effectiveness of the series of consonant sounds approached the maximum values, except for one or two errors in searching for acoustic pairs to the sounds [ch], [kh].

The most noticeable is the dynamics of changes in the reproduction of word sounds. The children were asked to build a sound model of words "Vedmid", "Yablunia", "Kompiuter" with the help of chips and play the word according to the scheme.

In the control group, the ratio of students who did not reflect the phonetic form of any word, and those who correctly analyzed the sound composition of one word (no other options for the task), corresponds to a percentage of 23/73 – as in the entrance test.

The division of the recipients of the experimental group is more complex and includes those who did not model a single word, modeled one, respectively, two, three words, all tokens, and chose a word for the presented model. The quantitative composition of persons at these levels can be given by the following percentages: 8/4/50/23/15. As we can see, despite the introduction of developmental influences, there are still children who have not been able to reflect the phonetic structure of a single word adequately, but their number has almost halved.

In this case, all participants in the control section accurately identified the elements in the mergers ("vedmid", "yablunia", "kompiuter"), hard and soft consonants outside the syllables ("vedmid", "yablunia", "kompiuter", "kompiuter"); with some difficulty distinguished soft consonants in the sound combinations ("vedmid", "yablunia"); it was difficult to analyze the merging of the soft consonant [y] with the following vowels ("yablunia", "kompiuter"), pronouncing these sounds inseparably ([ya], [yu]) and modeling them with a vowel sound chip.

These errors were detected mainly in the control group, to a lesser extent – in the experimental group. Also, only fourth-graders in the experimental group (15%) were able to reproduce words on the model, such as "banany", "doroga", "zhyrafa", "komakha", "moloko", "muzyka", etc.

The examination methods, in the perception of vowel sounds, were realized as internalized condensed perceptual operations. All students knew the most informative feature of these sounds – the absence of obstruction to the exhaled air – and quickly installed it. Consonant sounds were examined by representatives of different groups with specific differences. Thus, even with the certain categorization of the sound [y], children were asked, "Why do you consider the sound [y] consonant?" The students of the experimental group emphasized the sound. They concluded, "Because there is an obstacle in the air." Polls were complicated by, "Which speech organs create this obstacle?" Further actions were carried out in the same way – the repeated articulation of a sound and the characteristic of an obstacle: "It is language". Even if they considered the obstacle to be the leading feature of

consonant sounds, Respondents of the control group usually could not specify it.

An example of other situations that prompted the study participants to use appropriate ways of perceiving consonant sounds can be considered acoustic pairs in sonority/deafness. If there are difficulties in choosing a deaf consonant [kh] of the ringing pair, the student was first asked to prove that the sound is deaf, "How to recognize whether this sound is ringing or deaf?" The child recalled the articulatory features of these consonants ("there is a voice or no voice", "trembling vocal cords or not trembling"), put his fingers to the larynx, felt that the vocal cords do not vibrate, and came to the conclusion that the sound is a deaf consonant. They continued, "Now say the consonant [kh] so that the vocal cords tremble. What sound was formed?" Under such conditions, the vast majority of individuals in the experimental group correctly identified a paired consonant [h]. In the control group, the help often had to be stopped after the first question because the respondents remembered neither the leading sign of ringing/deaf consonants nor the method of studying it. In the case of correct categorization of the sound [kh], the appropriate acoustic pair was not set.

Thus, due to the introduction of the developed didactic tools, the degree of sensation, perception, and awareness of phonetic phenomena has increased significantly and formed a zone of immediate sensory operations development for their examination.

The internal structure of samples of retest participants can be defined as different levels: in the control sample, the division of schoolchildren into three groups is relevant – with low (18%), medium (59%), and sufficient (23%) levels of phonematic skills; in the experimental sample, children were divided into four groups – with medium (14%), sufficient (48%), high (27%) and consistently high (12%) levels of mastery of phonematic skills.

The average value of the quality of phonematic skills in the control sample corresponds to .56 relative to the ideal score of 1; students of the experimental sample – an indicator of .74. The increase in quality indicators is positive and is as follows: .04 – in the control group; .22 – in the experimental. The non-belonging of these samples and the sample of participants of the input diagnostics to one general population is illustrated by the graph of one-factor analysis of variance ANOVA, performed by statistical package "STATISTIKA": F-criterion exceeds one (equal to 188.03), significance level of the statistical conclusion p is less than .05 (equal to 0.0000), hence – group averages differ from each other (Figure 1).

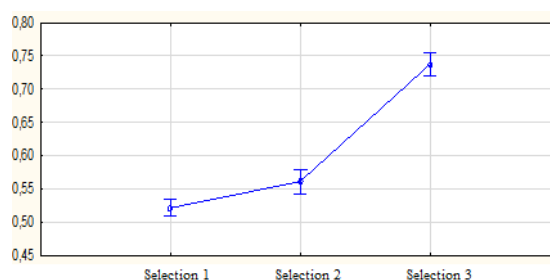


Figure 1 – Graph of average vibration values 1 (input test), 2 (retest; control group), 3 (retest; experimental group)

6 Conclusion

The scientific results give grounds for formulating such conclusions.

Phonematic skill as a psycholinguistic concept is a way of performing internalized introductory-cognitive perceptual actions, provided with a set of acquired standards of speech sounds and skills of their application in the examination of phonetic phenomena.

Incoming diagnosis showed that children are more developed purely sensory stage of phonematic perception at the time of

entering school. Still, perceptual and cognitive stages of phonematic perception, which are near related to mastering the system of standards and skills in their use in examining the sound form of words not formed.

Special educational and perceptual tasks are the leading means of improving the phonematic hearing of junior schoolchildren. They are introduced into the educational process in stages. They aim to expand and systematize the standards of speech sounds (motivational-orientational stage, 1st grade), developing detailed methods of examining sounds based on the manipulation of symbolic marks and condensed sound-examination operations with gradual translation into ideal transformation stage, 2–3 grades); adjustment of educational and perceptual activity by regulating the degree of complexity and dosing of phonematic actions, taking into account children's achievements (control and correction stage, 4th grade).

Experimental testing proved the effectiveness of the developed didactic influences: the quality of functioning of phonematic processes, primarily perceptual and cognitive stages (reproduction of the sound shell of words, awareness of phonetic phenomena), increased more markedly experimental group than in the control one.

Further research on the problem of integrative formation of phonematic and musical hearing of junior schoolchildren could be promising.

Literature:

- Akimova, N. & Akimova, A.I. (2018). Text Understanding as a Special Kind of Understanding. *Psycholinguistics*, 24(1). 27-46. DOI: <https://doi.org/10.31470/2309-1797-2018-24-1-27-46>.
- Barbashova, I.A. (2018). *Dydaktychna systema sensohnoho rozvytku molodshykh shkolariv: teoriia i praktyka* [Didactic system of sensory development of elementary schoolchildren: theory and practice]. Melitopol: Vydavnychiy budynok Melitopolskoi miskoi drukarni [in Ukrainian].
- Evchik, N.E. (2001). *Perceptual base of the language: theoretical and applied aspects of formation (in health and disease)*. Author's abstract dissertation. Dr. Philol. Sciences. Minsk, Belarus.
- Goriot, C., McQueen, J.M., Unsworth, S., Hout, R.V., & Broersma, M. (2020). Perception of English phonetic contrasts by Dutch children: How bilingual are early-English learners? *PLoS ONE*, 15(3), e0229902. <https://doi.org/10.1371/journal.pone.0229902>.
- Isaieva, N., Akimova, A.I., & Akimova, A.N. (2020). Categorization of Personality Traumatic Experience in Chinese Women's Diary Narrative: The Frame-Scenario Model. *Psycholinguistics*, 28(2), 56-81. DOI: 10.31470/2309-1797-2020-28-2-56-81.
- Japaridze, Z.N. (1985). *Perceptual phonetics (basic questions)*. Tbilisi: Metsniereba.
- Kalmykova, L., Kharchenko, N., & Misan, I. (2019). Modeling problems listening processes in world psycholinguistics. *Psycholinguistics*, 26 (1), 160–198. <https://doi.org/10.31470/2309-1797-2019-26-1-160-198>.
- Kochergan, M.P. (2014). *Introduction to Linguistics*, 3rd ed. Kyiv: Academy.
- Leontiev, A.A. (2005). *Fundamentals of Psycholinguistics*, 4th ed., rev. Moscow: Sense; Academia.
- Megino-Elvira, L., Martín-Lobo, P., & Vergara-Moragues, E. (2016). Influence of eye movements, auditory perception, and phonemic awareness in the reading process. *The Journal of Educational Research*, 109(6), 567–573. <https://doi.org/10.1080/00220671.2014.994197>.
- Nagels, L., Gaudrain, E., Vickers, D., & Başkent, D. (2020). Development of voice perception is dissociated across gender cues in school-age children. *Scientific Reports*, 10, 5074. <https://doi.org/10.1038/s41598-020-61732-6>.
- Savchenko, O.Ya. (2019). *A typical educational program for general secondary education. 1-2 class*. (Ed.) URL: <https://mon.gov.ua/storage/app/media/zagalna%20serednya/programy-1-4-klas/2019/11/1-2-dodatki.pdf>.
- Shamne, A., Dotsevych, N., & Akimova, A.I. (2019). Psychosemantic Peculiarities of Promotional Videos Perception. Psycholinguistic Projection. *Psycholinguistics*, 25(1), 384-408. DOI: 10.31470/2309-1797-2019-25-1-384-408.
- Shekhter, M.S. (1981). *Visual recognition: patterns and mechanisms*. Moscow: Pedagogy.
- Shytyk, L. & Akimova, A. (2020). Ways of Transferring the Internal Speech of Characters: Psycholinguistic Projection. *Psycholinguistics*, 27(2), 361-384. DOI: <https://doi.org/10.31470/2309-1797-2020-27-2-361-384>.
- Shytyk, L. & Akimova, A.I. (2020). Ways of Transferring the Internal Speech of Characters: Psycholinguistic Projection. *Psycholinguistics*, 27(2), 361-384. DOI: <https://doi.org/10.31470/2309-1797-2020-27-2-361-384>.
- Skipper, J.I., Devlin, J.T., & Lametti, D.R. (2017). The hearing ear is always found close to the speaking tongue: Review of the role of the motor system in speech perception. *Brain and Language*, 164, 77–105. <https://doi.org/10.1016/j.bandl.2016.10.004>.
- Skliarenko Olesia, Akimova Alina & Svyrydenko Oksana (2019) Psycholinguistic Peculiarities of Contextual Realisation of Concept «MACHT» in Linguistic and Cultural Space of German's. *PSYCHOLINGUISTICS*. 26 (2). 321-340. DOI: 10.31470/2309-1797-2019-26-2-321-340.
- Skliarenko, O., Akimova, A.I., & Svyrydenko, O. (2019). Psycholinguistic Peculiarities of Contextual Realisation of Concept MACHT in Linguistic and Cultural Space of German's. *Psycholinguistics*, 26 (2), 321-340. DOI: 10.31470/2309-1797-2019-26-2-321-340.
- Stern, A.S. (1992). *Perceptual aspect of speech activity: experimental study*. St. Petersburg: Publishing house of St. Petersburg University.
- Vashulenko, M.S. & Vashulenko, O.V. (2018). *Ukrainian language. Primer, (Part 1-2)*, Kyiv: Education.
- Vashulenko, M.S. & Vashulenko, O.V. (2019). *Literacy lessons according to the Primer*. Kyiv: Education.
- Venger, L.A. (1969). *Perception and learning: (preschool age)*. Moscow: Education.
- Ventsov, A.V. & Kasevich, V.B. (1994). *Speech perception problems*. St. Petersburg: Publishing house of St. Petersburg University.
- Zaporozhets, A.V. & Zinchenko, V.P. (1982). Perception, movement, action. *Cognitive processes: sensations, perception*. Moscow: Pedagogy, 50–79.
- Zaporozhets, A.V. (1986). *Selected psychological works*, 1. Moscow: Pedagogy.
- Zhinkin, N.I. (2012). *Psychological foundations of speech development*. *Bulletin of psychology*, 4 (33), 39–41.
- Zimnyaya, I.A. (2001). *Linguopsychology of speech activity*. Moscow: Moscow Psychological and Social Institute, Voronezh: MODEK.

Primary Paper Section: A

Secondary Paper Section: AI, AM, AN

CONTEMPORARY ABSTRACT ART AND ITS MULTIDIMENSIONALITY

^aTETIANA PROKOPOVYCH, ^bDMYTRO AVRAMENKO,
^cOLGA KALENIUK, ^dOKSANA LESYK-BONDARUK,
^eTVAN TARASIUUK, ^fHALYNA VAKHRAMIEIEVA

^{a-f}Volyn National University n. a. Lesya Ukrainka, 15, Kovel'ska Str., 43000, Lutsk, Ukraine

email: ^aprokopovych.tetiana@gmail.com,

^bhimera33a@gmail.com, ^ckonlyair@gmail.com,

^dO_Bondaruk@ukr.net, ^eiit77@ukr.net, ^fhalyna.v.18@gmail.com

Abstract: The article aims to discuss the author's concept of the phenomenon of abstract art. By absorbing all the achievements of humanity, art transforms and changes them, reflecting in its works the spirit of the time and the inner world of the artist living in this time. The development of science has actualized the issues of the relationship between ethical norms and artistic culture. The transformation of values, mentality, and perception of the world has led to cultural expression change. As a particular sphere of cultural life, art creates a need for new optics, a unique perspective of consideration, free from polar or eschatological assessments. The authors of the research article outline the fundamental aspects of the further development of contemporary art in the culture of postmodernism. The paper presents an exciting feature of modern art that influenced its development and public appreciation. In general, the article reveals the characteristics of cultural phenomena affecting contemporary art's formation and evolution.

Keywords: Abstract art, Contemporary art, Cultural phenomena, Forms of abstract image, Multidimensional art.

1 Introduction

In each historical era, one can observe a particular priority of one type of art over another. In the art of the second half of the XX century, there was a clear leap in the development of artistic creativity, embodied in various genres and trends [1]. The increased interest of the modern viewer in art justifiably aroused the artists a natural desire to make the most of the inner reserves of the multidimensional language of art. Simultaneously, the ambitious intentions of cultural figures led to large-scale experimental searches for new materials for creating their works and means of artistic expression.

The theme of a person in contemporary art, a change in its role and significance, an experimental search for the artistic embodiment of the theme of a person, in our opinion, is very indicative of reflecting the dynamics of the development of fine art in general. Since ancient times, art has been one of the paths leading to an understanding of the surrounding reality in culture. Today, the modern world is called global, informational, virtual, as in previous eras, is reflected in art. It is generally accepted that contemporary art often frightens and shocks the inexperienced viewer because it speaks in an incomprehensible, specific language [2].

In modern society, with the influence of new digital technologies on it, in the constant presence of the IT industry in everyday life, art often ceases to function within the framework of pure creativity. It usually merges with science and the latest technologies and invites new types into its sphere technological crafts. A striking example of this is art, which lies on the verge of abstract and real.

The difficulty in perceiving contemporary art is that, unlike the art of previous generations, where the main driving ideas of the spiritual component of a given era or culture were reflected in society's artistic life, with the beginning of the great and tragic XX century. A particular unified orientation of civilization and culture also disappeared.

The apparent limitations of traditional philosophical and religious doctrines in overcoming military conflicts (including global ones), environmental disasters, and crisis moods within society have led to disillusionment with ideology and rejection of traditional foundations. All these phenomena of the spiritual, political, and social spheres of culture became the prerequisites for the emergence of "new" art. This art, reflecting contemporary society's processes, proclaiming modern civilization's aesthetics,

is distinguished by the absence of any canons and aesthetic norms [3].

The art of the modern era of postmodernism was born on the wreckage of Western civilization's classical culture; it is not always capable of evoking positive emotions and does not want to be a source of beauty and morality.

Despite the history of the development of contemporary art available to a broad audience, it should be noted that it (this art) still raises many questions related to its art objects' content and aesthetic perception [4].

The main questions posed before the comprehension of modern abstract art sometimes sound like an accusation of the absence of a semantic dominant. Also, the existence of the phenomenon of art itself is often questioned.

Before we try to answer these questions, we note that one way or another, the artistic heritage of any era was initially, at the dawn of its birth, questioned, disputed, or even condemned among contemporaries. In this sense, contemporary art is not the first and only outcast among the public masses.

2 Literature Review

Despite all the complexity and contradictions of contemporary art, its new types, artistic directions, and tendencies, it is always open for perception and sometimes absolutely free interpretation of the author's ideological plan by the viewer, the dialogue with which may seem unrestricted and unrestrained. Artistic practices that are part of contemporary art structure create a mobile and rapidly transforming space of art and culture, which is remarkably differentiated, based on the principle of difference, and gives rise to a complex unity - "unity-in-difference" [8]. This aspect is the heuristic potential of contemporary art, which underpins the artist's freedom and creativity principles. The variety and activity of various creative practices these days fix the nature of aesthetic preferences and the general development of art. Still, they play an essential, socially significant role in forming a multicultural environment based on the priority of tolerance.

From the very beginning, art contributed to the axiological enrichment of culture, was its integral part, and often acted as the era's face [5]. And all these tendencies inherent in classical art have not lost their meaning in the period of modern conceptual, or, as it is also called, contemporary art. Art, born in the bosom of a contradictory, complex, and critical era, must speak its language, even if it seems sometimes confusing and meaningless [6]. That is why the emergence and development of abstract art in the age of postmodernism is a natural historical and cultural process. It reflects all the unfortunate tendencies of the modern world, notices all the absurdity of postmodern culture, and looks for new ways of civilization development, new axiological ways of its existence.

Contemporary art is new on this challenging path of knowledge and searches for new forms and ideas. In the same way, in the 18th century, caricatures in the painting of W. Hogarth exposed contemporary society [7]. And the expressive canvases of Goya in the 19th century illustrated the diseases of culture in revolutions and rebels. The display of culture in art is a creative process that includes a considerable number of different phenomena. It can enrich and elevate the art and destroy its foundations associated with the image's spiritual content. So, where to look for a possible semantic dominant of contemporary art?

Modern culture, with ruinous wars and the collapse of the religious foundations of society behind it, is primarily characterized by the loss of unshakable standards of good and evil, beautiful and ugly, comical and tragic [8]. Many values and ideals of the past, born of various ideologies, became limited,

destructive, untenable, and unrealizable. Values that cannot separate, but unite and truly elevate humanity are in the stage of formation and comprehension, requiring the interpretation of the past and present at a higher level of understanding, without dividing into absolute good and evil, without total refusal, praise, and denigration of various paths development [9]. The depth of ecological, political, spiritual discord within modern society leads to the urgent need to create a new concept of human existence in the world, implying the search for a grain of meaning and wisdom in every experience of the past, as well as the need to create a new diverse unity of ideas and cultures [10].

If viewed as the art of a free, spontaneous creative search for the ideal, contemporary conceptual art proclaims the rejection of all scientific theories and doctrines [29]. It rejects the already existing tradition of artistic heritage. Here, it is worth drawing the reader's attention to the fact that contemporary art refuses directly from the rules of the West's traditional academic art, not from any achievements of the past's artistic culture in general. It is perceived by contemporaries as a shocking rejection of tradition and axiology in the bosom of art and turns into an inexhaustible field of ideas in the modern multidimensional semantic field of culture [11].

Besides, abstract art owes its appearance to disillusionment with the dominance of man's rational principle [12]. That is why it is sometimes inexpressible in precise forms, the sensual world of human passions and emotions. The appeal to the sensual side of culture, to its subconscious, not fixed in stable conditions, faces finds expression in asymmetric, abstract forms and images, which now, in this new world of postmodernism, hide in themselves unknown, not yet explored ways of emotional impact on the viewer [24].

The manifestation of contemporary art is a shocking, piercing form, touching upon culture's polar foundations and having no taboo topics. It is often explained by an attempt to reanimate the human soul, which, having gone through the catastrophic spontaneous vicissitudes of the 20th century, is in a kind of aloofness and indifference.

3 Materials and Methods

The term "abstract art", also called "biased art", "non-figurative", "non-representational", "geometric abstraction" or "concrete art", is a rather vague umbrella term for any painting or sculpture that does not depict recognizable objects or scenes.

However, there is no clear consensus on the definition, types, or aesthetic meaning of abstract art. Some art critics believe that all art is abstract because, for example, no painting can hope to become something more than a crude generalization (abstraction) of what the artist sees. Even leading commentators sometimes disagree on whether a canvas should be labeled "Expressionist" or "abstract" [30].

The basic premise of abstraction - by the way, the vital issue of aesthetics - is that the formal qualities of a painting (or sculpture) are just as important (if not more) than its representational qualities.

Starting with a straightforward illustration, a painting may contain a terrible drawing of a person. But if his colors are wonderful, it may appear to us as a beautiful painting. It shows how formal quality (color) can override the representative rate (drawing) [22].

On the other hand, a terrace house's photorealistic painting can showcase an elegant representation, but the subject matter, color scheme, and overall composition can be downright dull.

The philosophical rationale for evaluating the value of a work of art's formal qualities follows statement that straight lines and circles are not only beautiful but eternally and absolutely perfect [5].

For simplicity, we can divide abstract art into six main types. Some of these types are less abstract than others, but they all involve separating art from reality:

- *Curvilinear abstract art.* This type of curvilinear abstraction is closely related to Celtic art, which used several abstract motifs, including knots (eight basic types), interleaving, and spiral patterns (including the triskele or triskelion).
- *Color or light abstract art.* This type is illustrated in the works of Turner and Monet. They used color (or light) in such a way to separate the work of art from reality when the object dissolves into a swirl of pigment.
- *Geometric abstraction.* This type is an intelligent abstract art. An early rudimentary form was Cubism, in particular Analytical Cubism, which rejected linear perspective and the illusion of spatial depth in painting to focus on its two-dimensional aspects.
- *Emotional or intuitive abstract art.* This type of intuitive art includes a combination of styles, the common theme of which is a naturalistic tendency. This naturalism manifests itself in the kind of shapes and colors used.
- *Gestural abstract art.* It is a form of Abstract Expressionism where the painting process becomes more critical than usual. The paint can be applied in unusual ways; the smear is often very loose and fast.
- *Minimalist abstractionism.* This type of abstraction was a kind of avant-garde art, devoid of all external references and associations. It is what you see - and nothing else. It often takes on a geometric shape dominated by sculpture, although some great artists have also used this type.

4 Results

Contemporary conceptual art in some of its manifestations demonstrates the modern world's crisis phenomena. Sometimes the interpretation of abstract art touches upon such facets of contemporary society as mass and elite subcultures. The images of conceptual art are regarded as a rebellion against an aggressive mass culture implanted practically by force. It is a protest against an emasculated individual of the same type, who has replaced the original personality, individuality, against the waking dream in which the lives of thousands of people pass [13]. Oddly enough, sometimes the rebellious character of contemporary art turns against itself, ridiculing the pathos and snobbery of conceptual, elitist, postmodernism divorced from the real world of art.

Of course, as at all times, sometimes in this huge chaotic world of art, among interesting topical works, one can find soulless dummies, not absurd pictures of the modern world, but vulgar, shocking, flashy canvases disguised as meaningful masterpieces [14]. Many of them are in contemporary society since the main field for developing new art centers on a spiritual but carnal, economically prosperous life. Avant-garde art is accepted, takes root, and grows in a well-fed and prosperous society. In this society, spirituality becomes a worthless burden, a hindrance that fetters physiological pleasures' raptures [15].

Of course, among the significant number of names and terms, it is easy to get confused and take false for real. But when we talk about contemporary art in its best manifestations, we note that it aims to realize the absurdity of a personality's idle existence in the era of consumption, at revealing an absurd picture of a one-faced world supposedly free as a result of the democratization of society. This art speaks about the illusions in which a person lives, thinking himself free, having no choice. Conceptual art, imitating its viewer (and not vice versa, as seen with superficial observation), has lost all line between tragic and comic, beautiful and ugly. Therefore, if we blame contemporary art for the lack of meaning of a simple set of feelings and emotions [24], we should first blame ourselves for this since art is nothing more than a projection of culture. Art is a child of its time [16]. But such art is only capable of artistically repeating what is already clearly filling the modern atmosphere. Art that does not conceal opportunities for the future, art that is only a child of your time

and will never become the future mother, is emasculated. It is short-lived; it dies morally at the moment when the atmosphere that created it changes. Art, capable of further development, also has roots in its spiritual era. Still, it is not only an echo and a mirror of the latter but has an awakening prophetic power that can act profoundly and over a long distance. Spiritual life, of which art is a part, and art is one of the most potent factors, is upward [17].

5 Discussion

Difficulties in reading contemporary art are also associated with searching for new incarnations and forms of the abstract image. In the process of creative creation, the artist transforms a tangible, realistic picture of an object or phenomenon into a more vague, multidimensional symbol or sign, which contains the very essence, the inner potential of the described item or property. The layman may object, calling this process of transformation of a material image into a dangerous transcendental deception of a naive viewer, a wild game of meaningless signs. Did the icon painter not transform earthly carnal ideas into the divine principle's spiritual manifestations in the old days? Did the primitive artist of the Stone Age put a philosophical understanding of the universe into the Uroboros symbol? At all times and in all eras, the artist, the creator, transformed the world's visual pictures into abstract artistic images, filling them with one or another meaning. Like his predecessors, the modern artist creates an abstract idea and seeks to comprehend and display the innermost essence of things, but he does it in the language of his time [18].

By and large, criticism of conceptual art has further increased the prestige of the artistic content of contemporary art objects in Western society. Moreover, it is interesting that without this aggressive anti-advertising and mass media propaganda, today's current art position would be very precarious, which confirms the widespread opinion about the boundless abilities of modern culture to consume any spiritual food [19].

But not always, these creative searches for a new artistic image turn into productive, innovative discoveries and discoveries. Freedom proclaimed the highest axiological foundation of the artist's creative thought, often in the hands of a nihilistic rebel, is reduced to an anarchist rejection of previous generations and eras' spiritual values [20]. Contemporary art is dangerous precisely because of its formalism and isolation from reality. An inexperienced master, feeling freedom in expressing the language of art, runs the risk of creating a dead, soulless, poorly comprehended work that does not evoke anything in the viewer but disgust or misunderstanding. Artists of the past have also looked for ways to balance form and content [21]. Being in a somewhat constrained position between the customer and the creative instinct, between nature and classical ideals, they risked crossing the line separating sophistication and "salonism," realism and vulgarity [22]. The artist's freedom has always been limited by the external need to serve the customer or ideology and an attempt to surpass the achievements of his contemporaries and ancestors [23].

Art has always stood somewhat higher than everyday routine experiences; it created a problematic field within socio-cultural processes, philosophical and religious disputes [31]. And in this vein, contemporary abstract art illustrates its era as accurately as possible and exposes its shortcomings. Of course, such art does not provide a ready-made answer to new ways of cultural development. It only makes the viewer think about ways to solve the main human problems [25].

6 Conclusion

Contemporary art forces the viewer or reader to go beyond stereotypical thinking, to be above ordinary and routine problems. Such art, practically by force, by means of shocking, makes a person think about the search for meaning. Rejecting the stereotypical view of art, which should be engaged in the search for beauty, an experienced recipient seeks to reveal all levels of a

multidimensional conceptual art object and see an epistemological component in it [26].

The meaning of art is always the result of the author and the viewer's joint mental efforts within the framework of the culture of postmodernism. Without the viewer's active participation (reader) in the creative process, a work of abstract art is often only a form that is beautiful in its compositional component. The close interweaving of multiple points of view, presented in a multidimensional work of art, provides the viewer with the opportunity not to seek absolute meaning in art and life [27]. It learns to endow art and, after it, experience with a unique individual sense. It consciously chooses the philosophical perception of the world that has most affected it, makes its contribution to the endless search for definitions, makes the viewer choose their position in reading a work of art [28].

Considering all of the above, it can be noted that the active (sometimes aggressive) force of contemporary art often tries to make the viewer or reader a co-author, capable of collegially participating in the search for new canons and values of art. To force, thus, the recipient to learn not only the world around him but also himself.

Literature:

1. Anderson, R. & Koval, A. (1994). *James McNeill Whistler: Beyond the Myth*. Carroll & Graf, New York, 186.
2. Belke, B., Leder, H., & Carbon, C.C. (2015). When challenging art gets liked: Evidences for a dual preference formation process for fluent and non-fluent portraits. *PLoS One*, 10, 1–34. doi: 10.1371/journal.pone.0131796.
3. Bennington, R., Backos, A., Harrison, J., Reader, A. E., & Carolan, R. (2016). Art therapy in museums: Promoting social connectedness and psychological well-being of older adults. *The Arts in Psychotherapy*, 49, 34–43. doi: 10.1016/j.aip.2016.05.013.
4. Bitgood, S.C. & Henderson, D.D. (1993). The effects of gallery changes on visitor reading and object viewing time. *Environment and Behavior*, 25, 761–781. doi.org/10.1177/0013916593256006.
5. Brieber, D., Leder, H., & Nadal, M. (2015). The experience of art in museums: An attempt to dissociate the role of physical context and genuineness. *Empirical Studies of the Arts*, 33, 95–105. doi: 10.1177/0276237415570000.
6. Brieber, D., Nadal, M., Leder, H., & Rosenberg, R. (2014). Art in time and space: Context modulates the relation between art experience and viewing time. *PLoS One*, 9, e99019. doi:10.1371/journal.pone.0099019.
7. Carbon, C.-C. (2017). Art perception in the museum: How we spend time and space in art exhibitions. *i-Perception*, 8(1), 1–15. https://doi.org/10.1177/2041669517694184.
8. Chamberlain, R., Drake, J. E., Kozbelt, A., Hickman, R., Siev, J., & Wagemans, J. (2019). Artists as experts in visual cognition: An update. *Psychology of Aesthetics, Creativity, and the Arts*, 13(1), 58–73. https://doi.org/10.1037/aca0000156.
9. Dijkstra, K. & Van Dongen, N.N.N. (2017). Moderate contrast in the evaluation of paintings is liked more but remembered less than high contrast. *Frontiers in Psychology*, 8, 1507. https://doi.org/10.3389/fpsyg.2017.01507.
10. Ferreira, G. (1959). No-Object Theory. *Jornal do Brasil*, March, Rio de Janeiro, Brazil, Art and People by Clemente Padin. http://www.concentric.net/~lndb/padin/lcpdoc.htm.
11. Ferrier, J.-L. (1999). *Art of the 20th Century*. Chene-Hachette, Italy.
12. Forster, M., Gerger, G., & Leder, H. (2015). Everything's relative? Relative differences in processing fluency and the effects on liking. *PLoS One*, 10, e0135944. doi:10.1371/journal.pone.0135944.
13. Francuz, P., Zaniewski, I., Augustynowicz, P., Kopis, N., & Jankowski, T. (2018). Eye movement correlates of expertise in visual arts. *Frontiers in Human Neurosciences*, 12, 87. https://doi.org/10.3389/fnhum.2018.00087.
14. Gombrich, E.H. (1967). *The Story of Art*. Phaidon, London & New York, 388.

15. Gomez-Puerto, G., Rosselló, J., Corradi, G., Acedo-Carmona, C., Munar, E., & Nadal, M. (2018). Preference for curved contours across cultures. *Psychology of Aesthetics, Creativity, and the Arts*, 12(4), 432–439. <https://doi.org/10.1037/aca0000135>.
16. Graf, L.K.M. & Landwehr, J.R. (2015). A dual-process perspective on fluency-based aesthetics: The pleasure-interest model of liking. *Personality and Social Psychology Review*, 19, 395–410. doi: 10.1177/1088868315574978.
17. Janson, H.W. (1991). *History of Art*. Prentice Hall Inc., New York.
18. Kellogg, R. T. (2018). Professional writing expertise. In Ericsson, K. A., Hoffman, R. R., Kozbelt, A., Williams, A. M. (Eds.), *The Cambridge handbook of expertise and expert performance*, 2nd ed., 413–430. Cambridge University Press. <https://doi.org/10.1017/9781316480748>.
19. Kozbelt, A. & Ostrofsky, J. (2018). Expertise in drawing. In Ericsson, K. A., Hoffman, R. R., Kozbelt, A., Williams, A. M. (Eds.) *The Cambridge handbook of expertise and expert performance*, 2nd ed., 576–596. Cambridge University Press. <https://doi.org/10.1017/9781316480748>.
20. Levison, P. (1997). *The Soft Edge: a Natural History and Future of the Information Revolution*. Routledge, London & New York.
21. Mullennix, J.W., Varnecky, A., Chan, C., Mickey, Z., & Polaski-Hoffman, L. (2016). The effect of color on automaticity of aesthetic judgments. *Empirical Studies of the Arts*, 34, 8–34. doi: 10.1177/0276237415621183.
22. Pelowski, M., Forster, M., Tinio, P., Scholl, M., & Leder, H. (2017). Beyond the lab: An examination of key factors influencing interaction with ‘real’ and museum-based art. *Psychology of Aesthetics, Creativity, and the Arts*, 11, 245–264. doi: 10.1037/aca0000141.
23. Prideaux, T. (1970). *The World of Whistler*. Time-Life Books, New York, 173.
24. Prokopovych, T.A. (2016). Expression of works of modern art. Painting. *Bulletin of the Kharkiv State Academy of Art Design*, 3, 84–92. <https://www.visnik.org/pdf/v2016-03-07-prokopovych.pdf>.
25. Rewald, J. (1941), *Letters*, Cassirer, London.
26. Schwabe, K., Menzel, C., Mullin, C., Wagemans, J., & Redies, C. (2018). Gist perception of image composition in abstract artworks. *i-Perception*, 9(3), 1–25. <https://doi.org/10.1177/2041669518780797>.
27. Seurat, G. (1890). Letter to Maurice Beaubourg. *Impressionism and Post-Impressionism: Sources and Documents*, L.Noehlin (Ed.) Englewood Cliffs, 1966, 113.
28. Silvia, P. J. (2013). Interested experts, confused novices: Art expertise and the knowledge emotions. *Empirical Studies of the Arts*, 31, 107–115. doi: 10.2190/EM.31.1.f.
29. Sontag, S. (1977). *On Photography*. Penguin, London.
30. Swami, V. (2013). Context matters: Investigating the impact of contextual information on aesthetic appreciation of paintings by Max Ernst and Pablo Picasso. *Psychology of Aesthetics, Creativity, and the Arts*, 7, 285–295. doi: 10.1037/a0030965.
31. Thommes, K. & Hubner, R. (2014). A picture is worth a word: The effect of titles on aesthetic judgments. In: Kozbelt, A. (ed.) *Proceedings of the Twenty-third Biennial Congress of the International Association of Empirical Aesthetics*. New York, NY: International Association of Empirical Aesthetics, 599–603.

Primary Paper Section: A

Secondary Paper Section: AL

A CHANGE OF HUMAN VALUES DURING THE LIFE AS AN INDICATOR OF THE FORMATION OF A SPIRITUAL BEING

^aTETIANA MIYER, ^bLARYSA HOLODIUK, ^cIGOR TKACHENKO, ^dVALENTYN SAVOSH, ^eHENNADI BONDARENKO, ^fOLENA VASHCHENKO, ^gIRYNA SUKHOPARA

^{a,e,f,g}*Borys Grinchenko Kyiv University, 18/2, Ihoria Shamo Blvd., 02154, Kyiv, Ukraine*

^b*Municipal Institution "Kirovograd Regional IN-Service Teacher Training Institute named after Vasyl Sukhomlynsky", 39/63, Great Perspective Str., 25006, Kropyvnytskyi, Ukraine*

^c*Pavlo Tychyna Uman State Pedagogical University, 2, Sadova Str., 20300, Uman, Ukraine*

^d*Volyn Institute of Postgraduate Education, 31, Vinnichenka Str., 43006, Lutsk, Ukraine*

email: ^at.miier@kubg.edu.ua, ^bgolodiuk_larysa@ukr.net,

^cpost@udpu.edu.ua, ^dvalsavosh@gmail.com, ^epi@kubg.edu.ua,

^fpi@kubg.edu.ua, ^gpi@kubg.edu.ua

Abstract: The research was carried out within the framework of the unfunded educational project "Axia". The main purpose of the study was to consider human as a cosmoplanetary phenomenon. The study of human in this perspective was based on the leading ideas of the theory of cosmic self-development and the concept of spirit. These are ideas in which: the appearance of human is explained by the evolution of the Universe; the process of self-development of the Universe is inextricably linked with the process of formation of human as a spiritual being; the spirit appears as a space in which human acts as a spiritual being; values are the formation in which the conditions of human existence are fixed. The course of the research was aimed at identifying the values that dominate in each of the periods of human life and form the basis for overcoming various psycho-social crises. The establishment of age limits for the association of respondents in the study groups was carried out following the age periods identified by E. Erickson in the periodization of human mental development. As a result of the study, six lists of values were compiled, which together reflect the process of forming a person as a spiritual being because of the constant change of values throughout life. The dominant values that guide each of the six groups of respondents, overcoming various psycho-social crises along the way, have also been identified.

Keywords: Evolution of the Universe, Personal values, Self-development of the Universe, Spiritual being, Spiritual energy of mankind.

1 Introduction

1.1 A Human is a Cosmoplanetary Phenomenon

Human's choice of values throughout his life acquires new semantic accents in the context of its consideration as a cosmoplanetary phenomenon, i.e. an organic and active part of the Universe [1]. In terms of cosmology, which is interpreted as a physical doctrine of the universe, the Universe means the universe, which is considered [11, 12, 20] as certain integrity, the functioning of which is subject to the general laws that make up the basis of the theory of universal gravitation, the theory of the electromagnetic field, quantum theory, etc. The large-scale universe, including numerous galaxies, is characterized as a formation with a high degree of homogeneity and isotropy [18]. For smaller scales, which are correlated with the size of individual galaxies, such characteristics are significant inhomogeneity and anisotropy. Cosmology also uses the term "metagalaxy", which denotes, first, the universe, which can be observed by various modern means; second, the world of galaxies. Our Galaxy belongs to the Local Group of galaxies, which, in turn, are part of a cluster of galaxies with a common center, located in the direction of the constellation Virgo.

Many physical and astronomical discoveries are significant to explain the processes taking place in space. In particular, such as:

- The discovery of the gravitational redshift, which is observed in the spectra of all distant galaxies for all directions in the celestial sphere, indicates that the galaxies are moving away from both our Galaxy and from each other. This movement is basic and general. Small random (peculiar) motions of individual galaxies are projected on it. Expansion (in other words, nonstationarity) of the Metagalaxy is presented in Hubble's law in 1929;

- Discovery in 1965 by American scientists, Penzias and Wilson, of microwave background radiation of the Universe, which is called relic radiation.

From the discoveries of the expansion of the Metagalaxy, the existence of relic radiation with the Planck spectrum, and other data from cosmology, it follows that 10-20 billion years ago the universe began the most important processes, the development of which led to the formation of the Universe.

1.2 A Human Belongs to Both: the Universe and the Earth

In the context of physical and astronomical data, the opinions of philosophers also seem legitimate. According to Reikh, human is, first of all, an inhabitant of space and only then an inhabitant of the Earth [15]. According to Kaznacheyev and Spirin, "in cosmic evolution, in the physical laws that defined the phenomenon of the Big Bang, the process of complicating the interaction of different material and energy flows within the cosmic whole – the evolving universe – seems to be programmed. As a result of this complication, living matter appears – in certain local forms of organization of cosmic material flows. In the socially programmed space-time local sphere socially programmed by common physical laws, conditions are created for the appearance of thinking living beings [8, p.17].

2 Materials and Methods

The content of the study is based on the scientific provisions of the theory of the origin of human as a cosmoplanetary phenomenon and as a subject carrier of the psyche and mind. According to Gorak, "if cosmic evolution is carried out in the direction from the Big Bang to the emergence of the ability to reflect and direct development, which appears first as the psyche and then the mind, the subject of both the first and second can be only the individual to whom the corresponding physiological and brain structures belong" [6, p.30].

2.1 The Appearance of Human is a Consequence of the Evolution of the Universe

Teyyar de Sharden is the founder of Teardism [19]. According to him, the space of Universe is characterized by two oppositely directed processes. It is a process of expansion and a process of folding. The process of coagulation is carried out as increasing internal concentration, internalization, accumulation of complex organization. An example of the process of expansion is that the evolution of the universe originates in the transcendental center of Omega. As an internally programmed process, the process of expanding the universe continues to this day. Expanding and increasing in volume, the universe is simultaneously concentrated in each of its manifestations, each particle. During the process of coagulation, the elementary carriers of the integrity of the Universe are the molecule, the cell, the psyche. The psyche is potentially inherent in the universe always but carries out its embodiment in human, his consciousness and spirituality.

According to Teyyar de Sharden, the origin of human is:

- The consequence of the evolution of the Universe, which develops, self-preserved and self-organizes according to the laws of the open system;
- The result of satisfying the need for the concentration of cosmic energy for the formation of such its manifestation, which carries out self-reflection; self-reflection and self-development of the system take place based on self-reflection [19].

2.2 A Human is the Spiritual Organizing Principle of the Self-Development of the Universe

According to the reasoning of the philosopher Gorak, the human individual is called to live by the cosmic evolution of the Mind. From the moment of its appearance, the individual is a condensed potential of the powerful flow, the spiritual organizing principle of the self-development of the Universe. But to realize his purpose in space, human becomes capable only in society. It forms its true essence. The formation of society should be seen as, first of all, the realization of its ability to think and spirituality, "and not life support, because the latter for human is derived from the former" [6, p.20].

2.3 The Spirit is the Space of Manifestation of Human as a Spiritual Being

In philosophical considerations, "the spirit is the space different from the material, in which the human personality is formed and acts as a spiritual being" [6, p.125]. The spirit is connected with the cosmic being of human. It is a specific formation in which the spiritual energy of mankind is accumulated. Thanks to this energy, the process of self-development of the Universe is carried out at the level of reflection and goal-setting.

2.4 Values are an Objective form of the Existence of the Spirit

The spirit forms its plane of being. It exists super-individually in the form of language, law, morality, religion, art, values, ideals, and so on [4]. The spirit is embodied in the existing formations, which testify to the specific achievements of the spiritual level of development of society. These are such formations as norms, traditions, beliefs, art, morals, values, etc. [5]. These formations:

- Created by human - human creates values, "thinking and suffering, fantasizing and loving, aesthetically mastering reality and building their relationships with others, consuming and reviving spiritual values" [6, p.140];
- Live in a person - all formations become spiritual only through their refraction in the human mind; if there is no involvement of the spirit in individual spirituality, the spirit becomes nothing.

Values, together with social consciousness and mentality, are an objectified form of the existence of the spirit [2, 9]. Values as a form of existence of the spirit remain values only in the case of freedom in their choice by human. "Imposed value ceases to value" [6, p.134].

2.5 Human is the Bearer, Creator and Nurturer of Spiritual Possessions

According to its purpose in the Universe, human is a constant and active source and the beginning of the growth of spirituality. Person is the bearer, creator, and nurturer of spiritual heritage, namely: books, paintings, sculptures, norms, values and more [10]. These spiritual possessions turn into a dead accumulation without being revived by a person's thinking, his feelings, and his creation of the spiritual.

In the concept of the spirit of value is "a statement of the universal in the light of individual existence" [6, p.134]. Values are revived and function in society. However, this does not mean that every individual in society acts in accordance with values [7, 17]. The spirit as a general, in general, exists only as an opportunity to join it, which is realized by everyone selectively. The absolute criteria for measuring value are truth, goodness, beauty, dignity, freedom, honor, justice, responsibility. These criteria are the real basis of human existence as a corresponding cosmic force.

2.6 The Conditions of Human Existence are Fixed in the Values

According to the theory of self-development of the Universe, values are those tablets (that is, what is written on the sacred,

cult text that preserves this text), on which the conditions of human existence are fixed. "Humanity, as such, exists not because it can eat, drink, dress and meet such needs of its own existence, but, above all, because it can reflect in space, to carry out its self-development, to think and feel" [6, p.133]. All manifestations of human existence are possible only based on values. Values are the unifying integrating principle.

2.7 The Aim of the Research

The article aims to establish the values that dominate each of the periods of human life. And also form the basis for overcoming psycho-social crises.

2.8 Research Methods

The study used the scientific work of Erikson "Periodization of human mental development", as well as methods: theoretical (analysis of scientific sources, systematization, and structuring of selected information, a generalization of the results) and empirical (questionnaire).

Within the framework of the unfunded educational project "Akhia" (author T. Miier) six groups of respondents were involved in the survey: Group I - from 4 to 7 years; Group II - from 8 to 13 years; Group III - from 14 to 19 years; IV group - from 19 to 35 years; Group VI - from 35 to 60 years; Group VII - from 60 years to the end of life. The content of the questionnaire was aimed at research of respondents' understanding of the essence of the phenomenon of "value"; a compilation of six lists of values chosen by respondents at different stages of their lives; ranking the components in six lists to establish the likely dominant values that influence the choice of ways to resolve psychosocial crises, according to certain groups of respondents.

2.9 Stages of Research of the Process of Formation of Human as a Spiritual Being

The empirical part of the study was built using the periodization of human mental development, which was developed by Erikson [3]. In this periodization, the psychologist organized the entire life path of a person in eight stages. Each of these stages corresponds to a certain way of solving a person's psycho-social crises and, as a consequence, the appearance of certain integral neoplasms in his psyche. The study focused on five stages of periodization, including:

- 1) Stage III lasting from 4 to 7 years; the way of solving psycho-social crises led to the formation of initiative as opposed to guilt as an individual mental neoplasm;
- 2) Stage IV lasting 8 to 13 years; the way to solve psycho-social crises has led to the formation of skills and competencies as opposed to feelings of inferiority;
- 3) V stage lasting from 14 to 19 years; the way of solving psycho-social crises led to the formation of personal identity despite the dysfunction of personal position as an individual mental neoplasm;
- 4) Stage VI lasting from 20 to 35 years; the way of solving psycho-social crises has led to the formation of the ability to intimacy and love in spite of isolation and abandonment;
- 5) Stage VII lasting 35 to 60 years; the way to solve psycho-social crises has led to the formation of productivity despite stagnation and regression;
- 6) Stage VIII, lasting from 60 years to the end of life, the way to solve psycho-social crises served the emergence of the formation of integrity and wisdom in spite of disintegration and destruction.

3 Results and Discussion

3.1 Values that Dominate in the Period from 4 to 7 Years

In the Psychological Dictionary-Guide values appear as "an interdisciplinary scientific category that denotes objects, properties or ideas that are important to human, embody ideals and are a standard for the individual, give meaning to life" [13,

p.201]. For comparison: respondents from 4 to 7 years under the concept of "value" understand:

- "Significant and important";
- "The most expensive for me";
- "How I measure everything that happens in life";
- "The most important";
- "Decisive for me."

According to the respondents, parents' love, belief in their own dreams, toys, parents (ie their presence), kindness, friendship, sincerity are values in the range of 4 to 7 years (Figure 1). It is these values that influence the way psychosocial crises are resolved in this age group and indirectly cause the formation of such an integral neoplasm in the child's psyche as: initiative as opposed to guilt.

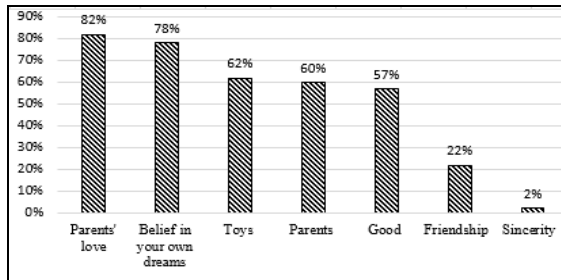


Figure 1 – Ranking of values of respondents aged 4 to 7 years

3.2 Values that Dominate in the Period from 8 to 13 Years

It is significant that friendship dominates among other values (achievements, relationships, parents, education) (Figure 2) as a value that influences the choice of ways to solve psycho-social crises in the age group from 8 to 13 years and indirectly affects the formation in the psyche of a child of this age such an integral neoplasm as the formation of skills and competencies as opposed to feelings of inferiority.

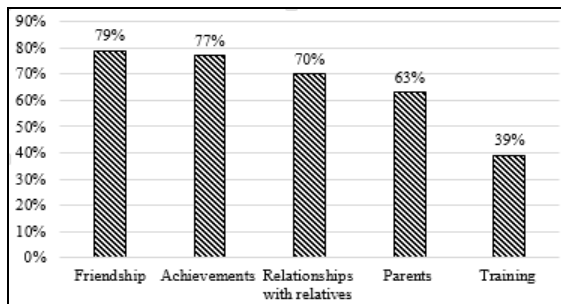


Figure 2 – Ranking of values of respondents aged 8 to 13 years old

3.3 Values that Dominate in the Period from 14 to 19 Years Old

In the age range from 14 to 19, respondents identified other values, including the following: love, independence, communication, beauty, creativity, freedom, self-development, honesty, recognition of others as individuals (Figure 3). Love, independence, communication are among the dominant values in choosing ways to solve psycho-social crises and the formation in the psyche of a young person such an integral neoplasm as: the formation of personal identity in spite of the dysfunction of personal position.

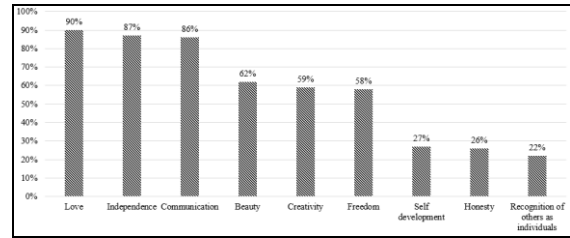


Figure 3 – Ranking of values of respondents aged 14 to 19 years old

3.4 Values that Dominate in the Period from 20 to 35 Years Old

According to the personal data, financial situation, own housing, family, self-realization, career, work, finding the meaning of life and their place in it, hedonism, optimism, family, mutual aid, experience, personal relationships, education, financial independence, psychological stability, patience (Figure 4) were attributed to the values chosen by respondents aged 20 to 35 years. The list is dominated by such values as: financial situation, own housing, family. In the vast majority of cases, these values influence the choice of ways to resolve psychosocial crises and indirectly lead to the formation in the human psyche from 20 to 35 years of such an integral neoplasm as the ability to intimacy and love in isolation and abandonment.

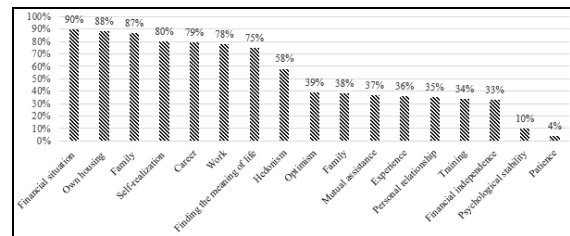


Figure 4 – Ranking of values of respondents aged 20 to 35 years old

3.5 Values that Dominate in the Period from 35 to 60 Years Old

Between the ages of 35 and 60, respondents chose the following values: respect, career, work, understanding, family, health, gratitude, tolerance, and charity (Figure 5). Respect, career, work are among the values that influence the choice of 35- to 60-year-old ways to solve psychosocial crises and indirectly influence the formation of such an integral neoplasm in the human psyche as productivity against stagnation and regression.

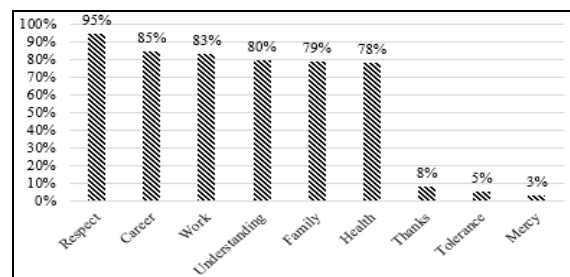


Figure 5 – Ranking of values of respondents aged 35 to 60 years

3.6 Values that Dominate from the Age of 60 until the End of Life

The list of values that are significant between the ages of 60 and the end of life includes the following components: family, health, forgiveness, truth, wisdom. As shown in Figure 6, in the vast majority of cases, health and family are elevated by respondents to the rank of values that influence their choice of ways to solve psychosocial crises and the formation in the human psyche of this age such an integrated tumor as: integrity and wisdom in the face of disintegration and destruction.

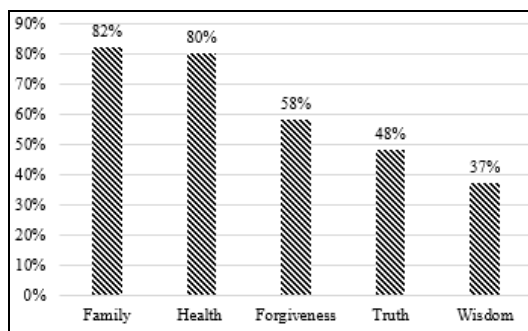


Figure 6 – Ranking of values of respondents aged 60 and over

The generalization of empirical data shows that human development throughout life is accompanied by the creation of his own spiritual world. This process is characterized by a change in values. In turn, the change of values is caused by the development of human as a person, the expansion of his own experience based on knowledge of the world, self-knowledge and involvement in the evolution of the Universe and the accumulation of spiritual energy [16]. The change of values throughout a person's life is an indicator of his formation as a spiritual being.

4 Conclusions and Implications

According to the theory of self-development of the Universe, the origin of human is a consequence of the evolution of the Universe, which develops, self-preserved and self-organizes according to the laws of the open system [19]. In this context, values are one of the components of the objectified form of existence of the spirit [6]. The introduction of the phenomenon of "spirit" is necessary for the understanding of the human personality as a spiritual being, which is formed and acts in a space other than the material. This space is the spirit, it is in it that the spiritual energy of humanity accumulates. Manifestations of the spirit cause the process of self-development of the Universe at the level of reflection and goal-setting [6]. The constant source and the beginning of the building of spirituality is human [3]. Person creates values, joins them, ensures their life in their own spirituality. The attachment of human to the spirit, which has its own plane of existence, exists superindividually in real forms, in particular in values. They do not lose their significance as values only in the case of freedom of choice by human [14].

Understanding values as something significant and important is a typical phenomenon for people of any age. A typical phenomenon is that "significant and important" is repeatedly rethought by human and reproduced in new values. The values are chosen by a person affect his life.

It was found that at each age of life in the category of "significant and important" respondents classified different values. In particular, these are:

- Love of parents, faith in their own dreams, toys, parents (their presence), kindness, friendship, sincerity (from 4 to 7 years);
- Friendship, achievements, relationships with parents, parents, education (from 8 to 13 years);
- Love, independence, communication, beauty, creativity, freedom, self-development, honesty, recognition of others as a person (from 14 to 19 years);
- Financial situation, own housing, family, self-realization, career, work, finding the meaning of life and its place in it, hedonism, optimism, family, mutual aid, experience, personal relationships, education, financial independence, psychological stability, patience (from 20 to 35 years);
- Respect, career, work, understanding, family, health, gratitude, tolerance, charity (from 35 to 60 years);
- Family, health, forgiveness, truth, wisdom (from 60 years to the end of life).

Key ideas of the theory of space self-development [19] and the concept of spirit [6], as well as the results of a study conducted as part of the

educational project "Axia" (author T. Miier, <https://sites.google.com/view/project-axia/>), complement the understanding of the essence of the phenomenon of "value" with ideas about:

- The importance of values for: human development as a spiritual being; self-development of space as an open system;
- Assigning to the values that are chosen by a person independently, the rank of regulators of his own life;
- The formation of a wide range of values throughout human life;
- Interpretation of existing changes in human values throughout his life as an indicator of its formation as a spiritual being.

Literature:

1. Baltes, P.B., Lindenberger, U., & Staudinger, U.M. (2006). Life span theory in developmental psychology. In W. Damon & R.M. Lerner (Eds.). *Handbook of child psychology. Theoretical models of human development* 1(6), 569-664. New York, NY: Wiley.
2. Bardi, A., Calogero, R.M., & Mullen, B. (2008). A new archival approach to the study of values and value-behavior relations: Validations of the value lexicon. *Journal of Applied Psychology*, 93, 483-497.
3. Erikson, E. (1996). *Detstvo i obshchestvo* [Childhood and Society]. Sankt-Peterburg: Universitetskaya kniga.
4. Fischer, R. (2013). What values can (and cannot) tell us about individuals, society and culture. In M. J. Gelfand, C.-Y. Chiu, & Y.-Y. Hong (Eds.). *Advances in culture and psychology*, 4, 218-272. Oxford: Oxford University Press.
5. Goodwin, R., Polek, E., & Bardi, A. (2012). The temporal reciprocity of values and beliefs: A longitudinal study with a major life transition. *European Journal of Personality*, 26, 360-370.
6. Gorak, G.I. (1997). *Filosofiya: kurs lekcij* [Philosophy: a course of lectures]. Kyiv: Vilbor.
7. Gouveia, V.V. (2013). *Functional theory of human values: Fundamentals, applications, and perspectives* [in Portuguese]. São Paulo, Brazil: Casa do Psicólogo.
8. Kaznacheev, V.P. & Spirin, E.A. (1991). *Kosmoplanetarnyy fenomen cheloveka* [The cosmoplanet phenomenon of human]. Moscow.
9. Maio, G. R. (2010). Mental representations of social values. In M. P. Zanna (Ed.) *Advances in experimental social psychology*, 42, 1-43. New York, NY: Academic Press.
10. McAdams, D.P. (1995). What do we know when we know a person? *Journal of Personality*, 63, 363-396.
11. Pibls, F.D.E. (1975). *Fizicheskaya kosmologiya* [Physical cosmology]. Moscow: Mir.
12. Pibls, F.D.E. (1983). *Struktura Vseenny v bolshikh mashtabakh* [The structure of the Universe on a large scale]. Moscow: Mir.
13. Prihodko, Yu.O. & Yurchenko, V.I. (2012). *Psihologichniy slovník-dovídnik: navchalniy posíbnik* [Psychological Dictionary-Dovídnik]. Kyiv : Karavela.
14. Quoidbach, J., Gilbert, D. T., & Wilson, T. D. (2013). The end of history illusion. *Science*, 339, 96-98.
15. Rerikh, N.K. (1997). *Kultura i tsivilizatsii* [Culture and Civilizations]. Moscow : MTsN.
16. Rikkert, G. (1913). *O sisteme tsennostey* [About the value system]. Moscow: Logos.
17. Roberts, B. W. & Mroczek, D. K. (2008). Personality trait change in adulthood. *Current Directions in Psychological Science*, 17, 31-35.
18. Sheler, M. (1988). *Polozheniye cheloveka v Kosmose. Problema cheloveka v zapadnoy filosofii* [The position of human in space. The problem of human in Western philosophy]. Moscow.
19. Teyyar de Sharden. (1987). *Fenomen cheloveka* [Human phenomenon]. Moscow.
20. Zeldovich, Ya. B. & Novikov, I.D. (1985). *Stroyeniye i evolyutsiya Vseenny* [The structure and evolution of the Universe]. Moscow.

Primary Paper Section: A

Secondary Paper Section: AM, AN

TOPONYMICS POLICY AS A TOOL FOR IMPLEMENTING NATIONAL NARRATIVES: INFORMATION AND LEGAL ASPECT

^aOLGA GOLOVKO, ^bOLEKSANDR VLADYKIN, ^cIRYNA PAVLENKO, ^dOLENA KOZYNETS, ^eSTANISLAV ONOPRIENKO

^{a-c}National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", 37, Prosp. Peremohy, 03056, Kyiv, Ukraine

^dChernihiv Polytechnic National University, 95, Shevchenko Str., 14035, Chernihiv, Ukraine

^eTaras Shevchenko National University of Kyiv, 81, Lomonosov Str., 03189, Kyiv, Ukraine

email: ^agolovko.olga@lpi.kpi.ua, ^bo.vladykin@kpi.ua, ^cpavlenko_irp@ukr.net, ^delena_8067@ukr.net, ^epirekas@gmail.com

Abstract: The article reflects the genesis of the main Ukrainian regulations within its toponymics policy. The degree of their effectiveness in regulation of public relations practices in the implementation of renaming toponymics' objects has been established. The study is based on Ukrainian regulatory sources and some empirical data from Ukrainian sociological centers. Research is based on the countries' experience which have systematically implemented toponymics policies. The legal and social impact of toponymics politics on national identity is analyzed. It is suggested to consider the process of renaming toponymics' objects in the light of information rights. A special emphasis on the role of national-patriotic education in implementing place-policy is made. The features and disadvantages of implementation renaming practices in Ukraine are identified. Issues which determine the prospects for future research in the field of human rights, particularly, information rights, were formed.

Keywords: Decommunization, Information rights, Legal aspect, National identity, Toponymics policy.

1 Introduction

The toponymics policy pursued by the Soviet government was a factor in restraining the national identity of the peoples within the Soviet state. It was a kind of imperialist instrument of control over a vast territory and a population of various ethnicities. Given this specificity, power and subordination were possible only by suppressing the peoples' national identity, including Ukraine.

In the cities of western Ukraine, most of the toponyms that reflected Soviet policy and were based on the names of Soviet politicians have been changed almost immediately since 1991. Such names, which were not related to the ideology of the period, but were based on the names of prominent Soviet scientists, poets, or writers, were changed more gradually. Central Ukraine is characterized by a moderate policy of renaming, as the changes concerned only the most odious individuals from the point of view of local authorities, whose names only promoted the ideas of communism or socialism. As for the eastern regions, the renaming was carried out point by point. Soviet toponymics remained in most cities and did not change until 2014.

As a result, Eastern Ukraine was more loyal to slogans about the supposedly positive Soviet past. Thus, the region's population's consciousness was much easier to manipulate, speculating that Ukrainian statehood was a formality.

Through the prism of Soviet history, expressed in Eastern Ukrainian toponyms, the absolute eradication of Ukrainian identity was carried out, the nation's right to self-determination, and the right to know about the historical past was leveled. In a broad sense, it is a restriction of the eastern Ukrainian region's population on the right to information, which was carried out primarily through propaganda content in the media space of an independent state. The basis for this was the banal habit of perceiving the events since the adoption of the Declaration of State Sovereignty not within the period of Ukraine's independence but within its post-Soviet history. Even judging by the legislator's approach to toponymics policy, the absolute inconsistency of renaming cities, streets, etc., becomes obvious. It led to the country's de facto split into two value-oriented blocs:

Western Ukrainian - with pro-European coordinates and Eastern Ukrainian - with pro-Russian, respectively.

As can be seen, Ukraine's toponymics policy in the context of decommunization was conducted completely unsystematically and based on the initiative of the public, local activists, and local authorities. Moreover, it is difficult to point to the existence of a toponymics direction in the policy of the state because the following analysis of the legal framework of the early period of Ukraine's independence shows its absence instead.

In addition to the prospects of improving the mechanisms of national toponymics policy and scientific discussion on such public relations, studies of Ukraine's experience are also relevant for countries in Europe and the world that are experiencing separatist movements or certain national tensions due to ethnic characteristics of a particular region. In a short historical period, one country has gone through a diametrically opposite path from the policy of completely denying the existence of the Ukrainian people to the policy of reproducing national identity, from society's complete disregard for the importance of toponyms to the clear requirement to ensure historical memory by renaming the toponymics landscape.

The world community can use such experience as an example of consolidating the people and a tool to reduce tensions in national conflicts and prevent such conflicts in general.

2 Literature Review

2.1 Legal Bases of Toponymics Policy in Ukraine

The practice of renaming toponyms objects realizes the need to awaken national consciousness and identity among the citizens of the newly born independent state [11, p.232]. Thus, with the independence of Ukraine, the issue of changing the toponymics landscape at the legislative level was raised for the first time only with the adoption of the Resolution of the Presidium of the Verkhovna Rada of Ukraine "On the establishment of a toponymics commission on the Presidium of the Verkhovna Rada of Ukraine" of April 5, 1993 [31]. Such a commission's main task is to preliminarily consider the submissions of local governments on issues related to the naming or renaming of settlements. The commission has also been identified as a scientific advisory body, which includes leading specialists in the field of linguistics, history, ethnography, geography, etc.

The Constitution of Ukraine of 1996 [32] referred the issue of naming and renaming of settlements and districts to the powers of the Verkhovna Rada of Ukraine, and changing the names of oblasts was determined by amending the Constitution of Ukraine, namely Section IX, as the names of such toponymics units are directly indicated in the Law.

The next stage in the formation of legislation in the field of the toponymics policy was the acceptance in 2005 of the Law of Ukraine "On Geographical Names" [33], which identified legal grounds for renaming geographical objects, namely: repetition of names of homogeneous geographical objects within one administrative-territorial unit, the need to return to individual geographical objects of their historical names, a significant change in the function or purpose of the geographical object.

This normative legal act is noteworthy, first of all, because, for the first time at the legislative level, the state recognized the right of citizens to influence toponymics policy by taking into account the opinion of the majority of the population living in the territory where the renamed or renamed objects are located, taking into account the provisions of the legislation on referendums.

According to the Paragraph 4, Part 1, Art. 16 of the current Law of Ukraine "On Culture" [34], among the powers of executive

bodies and local governments in the field of culture, among many others, the direction of preservation of intangible cultural heritage, including historical place names.

In the Law of Ukraine "On the Principles of State Language Policy" of 03.07.2012 [35], a separate section is devoted to toponyms, which provides that place names are formed and submitted in the state language, and in the territory where the regional language is widespread next to the state language. Its counterpart is reproduced in this local language.

Even though this law was declared unconstitutional by the Constitutional Court of Ukraine [8], the features of reproduction of toponyms mentioned in it for the first time at the legislative level in Ukraine linked language and toponymics policies of the state.

In contrast to this normative legal act, the Law of Ukraine "On Ensuring the Functioning of the Ukrainian Language as the State Language" of April 25, 2019 [39], which is special on language policy issues, draws attention to issues that have not yet arisen in the legal field of our region. The inadmissibility of translating or sounding objects of Ukrainian toponyms in other languages is emphasized. The norm on the possibility of displaying toponyms objects on the indexes and the name of its Latin alphabet counterpart's state language has been duplicated. It fully corresponds to the European experience in this field. However, the old law required the display of toponyms in the regional language in some cases, while dispositive Latin transliteration. He did not determine the order of location on road signs of names of toponyms in the state language and the regional language, which also created the preconditions for abuse. For example, the current law stipulates that if a Latin version is indicated, it must be smaller and placed to the Ukrainian name's right or bottom.

The previous law was provided to reproduce Ukrainian toponyms in the regional language or the language of a national minority. This measure aimed to reduce the likelihood of incitement to hatred based on language, but the practice of applying this rule has shown the opposite result. In our opinion, the legislator has chosen the right strategic decision, making it impossible to translate the names of toponymics objects without any exceptions.

In general, it can be argued that political events since 2014 have strengthened the sense of political unity and state identity in Ukraine, including higher respect for the Ukrainian language as a symbolic marker of this state identity. This view is reflected in other studies on language policy and national identity [2, 23].

The implementation of such a comparative analysis of special laws in language policy reflects the value essence of renaming the objects of toponyms, emphasizing the special attitude of the state to national and cultural heritage. Scientific doctrine suggests that place names play a role in cultural heritage as elements that contribute to local identity formation [12]. It once again emphasizes the expediency of reflecting in the Ukrainian legislation in the field of culture such an object of cultural heritage as historical place names. However, it leaves open the question of the diversity of interpretations of the concept of "historical place name", the investment of convenient meanings in it.

Returning to the retrospective review of the legislation, we note that a special period of raising the Ukrainian people's national identity was 2015, characterized by adopting some regulations. Among them are the laws of Ukraine "On perpetuating the victory over Nazism in World War II 1939-1945" and "On the legal status and honoring the memory of fighters for Ukraine's independence in the XX century", which became the crown of the heroism of the Ukrainian nation in the struggle for identity own state. Subsequently, the provisions of these laws were laid down, including in the process of renaming toponymics objects.

In accordance with Part 4 of Art. 5 of the Law of Ukraine, "On the legal status and honoring the memory of fighters for the

independence of Ukraine in the XX century" [40], among the ways to promote the perpetuation of the memory of independence fighters is the fixation of their names in the names of settlements – territorial units, as well as the names of geographical objects.

It is not without reason that Pierre Bourdieu emphasizes the struggle for symbolic capital, which is the state's monopoly on the legal "naming" of toponymics objects, including the names of national heroes. They are the embodiment of the symbolic capital that they acquired in previous battles for a certain worldview that underlies the state ideology [5, p.239]. Some researchers believe that the system of renaming city streets serves as a "memorial arena" where the struggle for cultural difference and "symbolic capital" takes place [1, p.168]. Indeed, examples of the Ukrainian people's heroism can be considered social capital at the national level. It is the engine of Ukrainian statehood development, awareness of identity, integrity, and ethnic unity.

It is believed that social capital is an important factor in the great struggle for the legitimization of a particular government [20, p.406]. Stefan Meyer states that renaming streets is usually a political act when the state shows its authority and the exclusive right to interpret its own history [25, p.106]. Simultaneously, the public may not share the importance that political elites attach to new names, which emphasizes the performative boundaries of street names as political statements [42, p.195].

3 Materials and Methods

The performativity of renaming toponymics objects is a reflection of the reorientation of society's values, which can occur in two directions:

- 1) Change of toponymics landscape as a consequence of the change of values;
- 2) Change of values due to changes in names.

The first way is more flexible, softer, more organic for society. The second can cause social resistance, dissonance, misunderstanding of the need for such a renaming.

We believe that the systemic renaming is not just a political statement but a signal of a radical change in public policy and the vector of social development. Toponymics renamings caused by changes in political leaders reflect the goals and tactics of each new national government [18].

The Law of Ukraine "On Condemnation of Communist and National Socialist (Nazi) Totalitarian Regimes in Ukraine and Prohibition of Propaganda of Their Symbols" of April 9, 2015 [36] became an indisputable reflection of the vector of modern toponymic spolicy in Ukraine.

The adoption of this Law gives grounds to assert the efforts of the legislator to systematically approach the implementation of decommunization policy, part of which is carried out by consistent and orderly renaming of toponymics units.

Thus, in particular, the Law stipulates that the names of oblasts, rayons, settlements, districts in cities, etc., which use the names or pseudonyms of persons who held leading positions in the Communist Party, the names of the USSR, USSR associated with the anniversaries of the October Revolution are symbols of the communist totalitarian regime. The regime, which is recognized as criminal by the same Law and, consequently, the symbols of which are prohibited.

The responsibilities of public authorities are determined to hold relevant public hearings and submit proposals to the Verkhovna Rada of Ukraine on renaming settlements, districts, and oblasts, the names of which contain prohibited symbols. There is a period of six months for the submission of such proposals, during which the legislature decides within three months to rename such objects, and in the absence of proposals, only the

recommendations of the Ukrainian Institute of National Memory are taken into account.

The scale and importance of such a policy are indicated by the fact that such requirements also apply to districts in cities, squares, boulevards, streets, etc.

At the same time, the Constitutional Court of Ukraine, during the study of the constitutionality of this Law stressed that given the history of the independent Ukrainian state, the historical context and the threats posed to it in connection with the temporary occupation of part of its territory, Ukraine has the right to defend constitutional principles, including by banning the propaganda of totalitarian regimes and the use of their symbols [9].

4 Results

Given the socio-political events that could have resulted in the loss of Ukraine's sovereignty in 2014-2015, the establishment of particular deadlines for "decommunization" of toponymics units indicates that public authorities have identified such actions as an effective means to stabilize the political situation and further level specified threat.

In the future, regulatory and legal regulation of toponymics policy is carried out point by point. Is evidenced by the Resolution of the Cabinet of Ministers of Ukraine "On approval of the action plan for the preparation and celebration of the 80th anniversary of the proclamation of independence of Carpathian Ukraine" [10], which provides for the renaming of toponyms persons of Carpathian Ukraine, in particular the President of Carpathian Ukraine Augustyn Voloshin. Such measures include the need to find such strong historical figures, the name of toponymics objects in whose honor will contribute to national identity. We will address this issue in more detail below.

Besides, given the lack of sovereignty of Ukraine over the occupied Autonomous Republic of Crimea, an important legal and political measure is the adoption of the Resolution of the Verkhovna Rada of Ukraine "On renaming certain settlements and districts of the Autonomous Republic of Crimea and the city of Sevastopol" [37] on the prohibition of communist symbols. The resolution comes into force from the moment of the return of the temporarily occupied territory under the general jurisdiction of Ukraine. Carrying out the renaming of settlements for the future is a feature of toponymics policy and decommunization processes in Ukraine that distinguishes it from any other post-Soviet country.

Thus, the peculiarity of regulatory regulation of relations in the field of the renaming of toponymics units in Ukraine is that such regulation is directly related to society's demand for decommunization, is activated by external factors, and is carried out in three stages:

- 1) The period from Ukraine's independence to the Revolution of Dignity, characterized by chaos and the state's disregard for the issue's urgency;
- 2) The period from the beginning of the armed aggression of the Russian Federation against Ukraine to the present time, which is carried out quickly under the influence of the need to preserve national identity;
- 3) Renaming to the future, which aims to demonstrate the vector of policy and prepare the legal framework for the return of the temporarily occupied territories under the jurisdiction of Ukraine.

However, there is a lack of a comprehensive approach to the renaming process in Ukraine, as in post-socialist countries, aiming to rehabilitate the urban space from the symbols of the Soviet regime rather than restore and promote images of Ukrainian identity. It should not be overlooked that memorable street names play an important role in the symbolic construction of national identity, mainly in terms of awareness of historical heritage [3, p.196].

In the period before the intensification of decommunization processes, the Ukrainian renaming policy was generally declarative. It was carried out by delegating this function to lower government levels, which, in turn, often did not implement it due to lowering the priority of this issue.

Antagonistic approaches generally characterize political confrontation in Ukraine. However, in terms of implementing the decommunization process, there is an almost absolute consolidation of political forces. This is another confirmation of the choice of a single political direction in the state, and the systematic implementation of decommunization measures, especially in terms of toponymics rebranding, is a great proof of the coherence of information policy in the state. It is necessary to reach the level of collective historical memory, the formation of which should play a consolidating role and create the preconditions for national unity. This process will be facilitated by a unified strategic sense approach to renaming toponymics objects taking into account local features, but without going beyond the strategic narrative defined by the current Doctrine of Information Security (from now on - the Doctrine) [15].

5 Discussion

5.1 Empirical Research and Features of Strategic Narrative

On November 2018, in cooperation with sociological institutions - Kyiv International Institute of Sociology, Ukrainian Center for Economic and Political Studies. O. Razumkova and the Rating Sociological Group monitored the electoral sentiments of Ukrainians. The survey included several social issues, particularly the areas that, in the opinion of the respondents, need the most reforms in Ukraine. The item "Humanitarian reforms (educational reform, Ukrainization of the information space, decommunization)" received the least votes. Interestingly, Minsk residents, on the other hand, express discomfort about Soviet street names, illustrating that the public's reaction to renaming processes may differ dramatically in different cities or countries, depending on the context [6].

The results of the survey of Ukrainians show a neglect of the above-mentioned social capital. Researchers of the memorial and cultural heritage emphasize that it has a political and symbolic character, reflecting attempts to form a sense of historical heritage and public memory. This contributes to the realization of the mnemonic goal - the formation of memorial triggers associated with certain historical events [29, p.8-9]. The Polish experience shows that the order of renaming was hierarchical, as great attention was paid to the rule that the central streets should be named after prominent figures [25, p.142, p.160].

Access to qualitatively new strategic narratives is characterized by longevity, and their implementation in Ukraine takes place during the hybrid war. In such circumstances, the unmet or partially unsatisfied human need for security is obvious. Because of this, other needs, deeper, are not perceived in society as a priority. Realizing this, the ambiguous response to decommunization processes is predictable. Their intensification within the framework of toponymics policy creates preconditions for bringing to public discussion those issues that previously remained "in the air."

At first glance, these survey results reflect the view that there are more urgent needs in Ukraine than the need to rename streets. It is fully true, as the question of strengthening national identity, including the decommunization of toponyms, was to go hand in hand with the process of declaring the independence of the Ukrainian state. However, then these issues, as well as now, were not considered as important for the formation of the state. The result was the use of this ideological gap by the aggressor state. Currently, the process of renaming toponyms in Ukraine makes it possible to manipulate this fact, presenting it in a negative connotation, although such renaming is a very justified measure of public policy. Decommunization in Ukraine has become one of the strategic narrative segments, the existence of which was specified only in 2017 with the advent of the Doctrine of Information Security of Ukraine.

Also, this Doctrine identifies a list of current threats to Ukraine's national interests and national security in the information sphere, among which the uncertainty of the strategic narrative was singled out. In the content of the Doctrine, it is defined as a specially prepared text intended for verbal presentation in the process of strategic communication in order to have an informational impact on the target audience.

The Order of the Ministry of Defense of Ukraine "On Approval of the Concept of Strategic Communications of the Ministry of Defense of Ukraine and the Armed Forces of Ukraine" [24] (hereinafter - the Concept) provides for the term "national narrative." The difficulty arises from the fact that it is specifically included in its content, given that this order covers only the military sphere. We propose to proceed from a set of sectoral laws and other strategic documents in the areas defined by the Law of Ukraine "On National Security of Ukraine" of 21.06.2018 [38], namely, the areas of military, foreign policy, state, economic, information, environmental security, cybersecurity of Ukraine, etc.

Instead, we find the definition of "strategic narrative" in the above Concept as a fundamental idea that reflects and defines the basic principles of existence and development of the state (its institutions), the nature and direction of internal and external relations, which form the direction of state (departmental) policy. This definition is indeed departmental, as it focuses primarily on the Ministry of Defense activities and the Armed Forces of Ukraine. However, it has clear structural elements of the fundamental idea of the existence of the state, namely:

- 1) Principles of state development;
- 2) The direction of internal and external relations.

Suppose we extrapolate this system to the decommunization process in Ukraine. In that case, we will see that the decommunization of toponyms plays one of the main roles in the formation of a strategic narrative within the information and legal policy of the state.

Prospects for the study of toponymics policy are determined by the national interests defined by the Doctrine in terms of "protection of Ukrainian society from aggressive informational influence of the Russian Federation aimed at propaganda of war, incitement of national and religious enmity, forcible change of constitutional order or violation of Ukraine's sovereignty and territorial integrity." It is pertinent to note the existence of destructive informational influence of an external nature (on the part of the Russian Federation) and an internal one (in terms of the use of communist toponyms, which creates obstacles to the formation of national identity). There is an urgent need to rethink the system of national values in politics and other spheres of life of Ukrainian society. A clear definition of national priorities and interests creates quite logical preconditions for the eradication of old narratives, including within toponymics policy. Thus, there is a direct causal link between toponyms' decommunization and the creation of conditions for national self-identification.

Decommunization and related topics are the main narratives that contribute to the formation of a policy of remembrance of Ukrainians as a separate nation, thus realizing the people's right to self-determination provided by the Declaration of Principles of International Law on Friendship and Cooperation under the UN Charter. In addition, through the process of decommunization of toponyms is the actualization of the paradigm of human rights in terms of exercising the right to information under Art. 5 of the Law of Ukraine "On Information" [30].

5.2 Information Rights and Toponymics Policy: Problems and Prospects

The above-mentioned Doctrine defines the national interests of Ukraine in the information sphere, in particular, the vital interests of the person, including:

- 1) Ensuring the constitutional human rights and freedoms to collect, store, use and disseminate information (the right to information);
- 2) Ensuring the constitutional human rights to the protection of private life (right to privacy);
- 3) Protection from destructive information and psychological influences (information security, which in scientific Doctrine is still considered through the prism of the human right to a secure information space).

Given the state of hybrid war (DIME war - Diplomacy, Information, Military, Economy), in which Ukraine is, the information component is a set of measures to decommunize and deideologize not only the virtual but also the public space. The human right to a secure information space is the core of such measures. In our opinion, this right corresponds to the state's duty to create such conditions for human life. The codes will not be pressured by the names and symbols of a particular ideology. This is the main goal of toponymics policy in Ukraine, the implementation of which has become most effective within the decommunization processes.

In fact, there are a number of other factors that influence the formation of national identity, and in interaction with which the human right to a secure information space goes beyond the cross-border level. Researchers emphasize the blurring of national identity in connection with globalization processes, particularly the process of digital transformation. The World Wide Web creates easy conditions for cross-border influences, which are a means of "spreading a common system of beliefs, worldviews, language structures, stereotypes, ways of linking form and content and other categories that determine the features of thinking and communication in a society" [28]. This suggests an increase in legal measures to ensure human security in the information space at both the personal and national levels. New digital conditions can pose a threat to information security, so they need preventive measures to prevent information attacks.

One cannot agree with the idea of using the term "toponymics war," although it exists in scientific Doctrine. It is interpreted as a situation in which marginalized nationalities and language cultures within certain countries appropriate and rewrite place names on maps as part of their measures to counteract the national identity of ethnically belonging peoples [21, p.85]. Such measures are undoubtedly part of an information campaign against a nation embodied in a state to intervene in its territory or seize part of the territory under the slogan of "emancipation and liberation from oppression" or to create unfavorable conditions for the functioning of the state apparatus. In such a state, security is a basic need that the majority of the population is dissatisfied with. In this situation, the nation's development and prosperity recede into the background, as illustrated by the above survey.

Of particular interest within the implementation of toponymics policy are the right to information and the human right to secure information space. In the first case, we can talk about a specific manifestation of this right, which is access to information about the historical past. The second is about the neutralization of destructive information influences that distort information about the historical past and inhibit the formation of national memory, including through the names of toponyms objects.

Undoubtedly, ensuring access to information is a human informational right that stimulates the formation of national self-identification, self-awareness of the nation through obtaining factual data about the state's historical past and people. When discussing the importance of symbols of the past, it should also be noted that the symbolism associated with a particular object may acquire different connotations associated with certain symbols that change over time [26, p.22].

The "right to the truth" deserves special attention, which narrows the content of the understanding of access to information. There is a well-known practice of allocating this right to information about past human rights violations, which some scholars define as a segment of the general public's right to know such cases. The report of the French expert Louis Janet in 1997 of the UN

Subcommittee on Prevention of Discrimination and Protection of Minorities included this very right, which he proposed to interpret as a collective right to knowledge of human rights violations that exist in history. In his opinion, this should prevent the recurrence of such violations in the future. Corresponding to this right is the "duty to remember" which the state must assume in order to protect itself from distortions of historical facts; for the knowledge of the oppression experienced by a particular people is part of the national heritage of the people and must be preserved [7, p.8-9].

From a legal point of view, we believe that it is not necessary to single out individual rights, which in essence embody the right to information. The concretization of the right to truth is necessary rather than for scientific doctrine because it makes it possible to analyze the right to information in a particular legal regulation area. In our opinion, the right to truth covers more deeply the practice of renaming toponyms objects in view of the historical context.

It is also worth supporting the need to disseminate information on cases of human rights violations, particularly during the anti-terrorist operation (ATO), and later - the Joint Forces Operation (JFO). Renaming of toponyms objects related to high-profile cases of human rights violations, namely the names of victims of such encroachments, is a manifestation of the social feature of the state, which is provided by the Constitution of Ukraine.

The idea of interpreting the right to information as a collective right also deserves attention because the direct participation of local governments in activities related to the naming or renaming of settlements in combination with the above right to truth is an expression of personal information rights exercised, including number through local toponymics policy.

5.3 National-Patriotic Education as a Segment of Toponymics Policy: Formation of a Model of Historical Memory

Undoubtedly, the memory of past experiences, including the negative one that appears before us in cases of human rights violations, performs a preventive function, forming a particular trigger in society. This trigger can be certain signs, symbols, sounds. So when it comes to renaming the objects of toponyms, it is a tool of the state in creating certain triggers in the population's mass consciousness. Such a trigger is the cause of certain emotions, hopes, and expectations, which form a strategic narrative (the direction of development of the state and the principles of its domestic and foreign policy). A relevant example of such a trigger is the naming (renaming) of squares and streets in the Ukraine settlements to honor the feat of the participants of the Revolution of Dignity and perpetuate the memory of the Heroes of the Heavenly Hundred. Such an event was provided by the Decree of the President of Ukraine "On honoring the heroism of the participants of the Revolution of Dignity and perpetuating the memory of the Heroes of the Heavenly Hundred" from 11.02.2015 [14]. Its implementation took place within the decommunization processes.

In fact, the toponymics policy outlines the perspective of discourse as a source of forming new symbols of the national model of "historical memory" [22, p.5]. It is very important to avoid using renamings as a tool to remove one layer of historical memory in favor of another because the new names should consolidate Ukrainian society, not divide it [17, p.134]. For example, in Wrocław, the city's toponyms were redesigned during the communist era, not only for reasons of conformity to the dominant ideology. At that time, the city was under German rule, and therefore many of its streets were named after the heroes of this country, which was perceived by official propaganda and much of society as the greatest enemy [26, p.24]. It is worth noting that toponyms are often transformed to suggest or cause a certain evolution in society, to make fundamental worldview changes [19].

Turning to the post-Soviet practice of renaming in Poland, we see that the streets, which were given strong symbolic names of

the communist period, were given no less ideologically strong analogs. The most notable examples were Lenin Avenue, renamed Solidarity Avenue, and the Six-Year Plan and Cuban Revolution Avenue merged together and renamed John Paul II Avenue [26, p.25]. As we can see, communist names had an undisguised ideological discourse, and changing street names was a well-trying and effective way of introducing and disseminating the permitted version of history that the political elite sought to embody in the ordinary lives of "ordinary" people, with the main intention of creating a new collective memory [4, p. 29].

The model of historical memory is based on a sense of patriotism. Some scholars, studying aspects of patriotism development, consider it in two forms: ethnic and civic patriotism. They directly emphasize the abuse of regional elites in the struggle for power by the ideas of collective memory and national identity, unless ethnic patriotism is transformed into civic patriotism. This may even be "a condition for the emergence of separatist movements and new state (or quasi-state) formations, which is currently observed in eastern Ukraine [41, p.71].

Such abuses can be traced back to the communist era, as the "permitted version of history" was introduced into Ukrainian toponyms precisely because of ethnic patriotism in a distorted form. Ukrainians' presentation was available exclusively within the Russian state (first the Russian Empire and later the Soviet Union). This example illustrates how a one-sided interpretation of history creates the conditions for one state to control another through the loss of national identity. Even at the present stage, Diesen and Keane [13] emphasize that both the West and Russia seek to encourage a certain historical narrative about Ukraine that is in their interests in the region.

Returning to the Polish experience of renaming, we note that it testifies to the correctness of Ukraine's chosen way of replacing communist names with the same ideologically strong names. This approach is justified, but it is very important to avoid excessive heroism, which can cause opposition or misunderstanding in society. Educational activities will also help avoid bias or other negative reactions to the naming of modern heroes' toponyms objects.

Having considered the reflection of the model of historical memory in toponyms objects and clarified the importance of educational activities on the social significance of renaming, we propose to move to the practical aspects of their implementation, which are based on the idea of civic patriotism. Interestingly, some researchers operate in the category of "civic identity" as derived from ethnic identity. Gwendolyn Sasse and Alice Leckner state that the period 2017-2018 in Ukraine appears as a rare moment of identity change [27, p.94].

Turning to the provisions of the current Strategy of National-Patriotic Education (hereinafter - the Strategy), approved by the Decree of the President of Ukraine [16], we find that this type of educational activity is an integral part of the national security of Ukraine. Taking into account the intensification of decommunization processes, this Strategy identified the need to overcome the imperial-totalitarian rudiments in the public consciousness and due to Russification, destruction of Ukrainian spiritual and cultural heritage, and historical memory differences in perceptions of the historical past, including the totalitarian era, and famines. Due to the listed realized threats, it is expedient to take measures for:

- 1) The formation of an active civic position (civic patriotism);
- 2) Affirmation of citizens' national identity based on the Ukrainian people's spiritual values, national identity.

It is possible, taking into account the development and dissemination of the Ukrainian people's socio-state and spiritual and moral values by forming a national-patriotic worldview. Within this activity, it is very important not to ignore the issue of restoration and preservation of national memory, which is

expressed, inter alia, through historical toponyms as an element of cultural heritage.

Therefore, the order of the Cabinet of Ministers of Ukraine "On approval of the action plan for the implementation of the Strategy of national-patriotic education of children and youth for 2017-2020" of October 18, 2017, provided for measures to "perpetuate the memory of fighters for independence in Ukraine in XX century. Persons who participated in the protection of Ukraine's sovereignty and territorial integrity and the anti-terrorist operation in eastern Ukraine, by naming or renaming in the prescribed manner in their honor objects of toponyms.

Besides, one of the primary factors of national-patriotic education is "respect for the memory of victims of communist and other totalitarian regimes in Ukraine, including victims of the Holodomor, political repression and deportation."

For example, the Decree of the President of Ukraine "On measures in connection with the 75th anniversary of the Holodomor of 1932-1933 in Ukraine" of March 28, 2007, provided for measures to rename in the prescribed manner the objects of toponyms, the names of which are associated with persons involved in the organization and implementation of the Holodomor of 1932-1933 in Ukraine and political repressions. By the way, to exercise discretionary power, this is one of the first legal acts by which the president obliged the local authorities to such renamings.

Thus, this direction of educational activity is closely correlated with the toponymics policy because events related to public sacrifice are an integral part of historical memory and must be reflected in the names of cities, squares, and streets as a memorial to the sacrifice for the bright future of the nation.

6 Conclusion

Assessment of the state and current trends of toponymics policy in Ukraine allows us to formulate the following features and shortcomings of its implementation.

Toponymics policy in Ukraine is characterized by inconsistency and chaos, a close connection with the need to decommunize society in general, and the toponymics landscape in particular. Since Ukraine's independence, the renaming of toponyms objects has depended only on local authorities' free will and public activity.

However, Ukraine's political events have forced the use of all possible means to ensure national identification, including by creating a mechanism for active change of the toponymics landscape by central authorities, in particular, the Parliament of Ukraine, in case local authorities strongly oppose.

Ukraine uses the experience of post-Soviet countries to find strong national personalities that unite the nation or are politically neutral and uses geographical and historical features in the formation of toponyms.

Distinguishes Ukraine from other post-Soviet countries in the legislation provides for the procedure of legal regulation of renamings for the future, in terms of decommunization of the Autonomous Republic of Crimea after returning to the jurisdiction of Ukraine.

Examining the implementation of toponymics policy in Ukraine and other post-Soviet countries, we conclude that it is an interdisciplinary phenomenon that combines historical, national, social, political, moral, and legal processes that reflect and determine the vector of their development.

The toponymics policy is a previously underestimated system of forming national identity by post-Soviet countries and one of the promising tools for implementing national narratives defined by the state's relevant development strategies.

Thus, the toponymics policy's main goal is to unite the country within a certain strategic narrative, based on the ideas of national identity. Deviation from this goal will cause only resistance or even aggression in society.

We conclude that toponymics policy is an instrument of information security of the state, the implementation of which is impossible without the realization of the person's right to information provided by the Constitution of Ukraine; determines the formation of the "historical memory" of the nation and is provided with appropriate educational activities.

Literature:

1. Alderman, D. (2003). Street names as memorial arenas: the reputational politics of commemorating Martin Luther King Jr.: in a Georgia county. *Historical Geography*, 35(2), 163-173.
2. Alexseev, M. (2015). War and Sociopolitical Identities in Ukraine. *Ponars Eurasia, Policy Memo*, 392. Available at: http://www.ponarseurasia.org/sites/default/files/policy-memos-pdf/Pepm392_Alexseev_Oct2015.pdf.
3. Azaryahu, M. & Kook, R. (2002). Mapping the nation: street names and Arab Palestinian identity: three case studies. *Nations and Nationalism*, 8(2), 195-213.
4. Azaryahu, M. (2011). The critical turn and beyond: the case of commemorative street naming. *International E-Journal for Critical Geographies*, 10(1), 28-33.
5. Bourdieu, P. (1991). *Language and Symbolic Power*. Cambridge, MA: Harvard University Press.
6. Bylina, V. (2013). Minsk Toponymics: Communist Street Names in a Medieval City. *Belarus Digest*, 11 January. Available at: <https://belarusdigest.com/story/minsk-toponymics-communist-street-names-in-a-medieval-city/>.
7. Carver, R. (2000). *Who Wants to Forget? Truth and Access to Information about Past Human Rights Violations*. London: Article 19.
8. CCU. (2018). *Decision of the Constitutional Court of Ukraine in the case on the constitutional petition of 57 people's deputies of Ukraine on the compliance of the Constitution of Ukraine (constitutionality) with the Law of Ukraine "On the Principles of State Language Policy"*. Official website of the Verkhovna Rada of Ukraine, February 28. Available at: <https://zakon.rada.gov.ua/laws/show/v002p710-18>.
9. CCU. (2019). *Decision of the Constitutional Court of Ukraine. Decision of the Constitutional Court of Ukraine in the case on the constitutional petition of 46 deputies of Ukraine on the compliance of the Constitution of Ukraine (constitutionality) with the Law of Ukraine "On Condemnation of Communist and National Socialist (Nazi) Totalitarian Regimes in Ukraine and Prohibition of Propaganda of Their Symbols"*. Official portal of the Verkhovna Rada of Ukraine, July 16. Available at: <https://zakon.rada.gov.ua/laws/show/v009p710-19>.
10. CMU. (2019). *Resolution of the Cabinet of Ministers of Ukraine "On approval of the action plan for the preparation and celebration of the 80th anniversary of the proclamation of independence of Carpathian Ukraine."* Official portal of the Verkhovna Rada of Ukraine, February 13. Available at: <https://zakon.rada.gov.ua/laws/show/90-2019-%D1%80>.
11. Crljenko, I. (2012). The renaming of streets and squares in post-Socialist Croatian towns. *Language and Society*, 3, 230-241.
12. David, J. (2013). Street names – between ideology and cultural heritage. *Acta Onomastica*, 54(1), 53-61.
13. Diesen, G. & Keane, C. (2017). The two-tiered division of Ukraine: Historical narratives in nation-building and region-building. *Journal of Balkan and Near Eastern Studies*, 19(3), 313-329.
14. DPU. (2015). *Decree of the President of Ukraine "On honoring the feat of the participants of the Revolution of Dignity and perpetuating the memory of the Heroes of the Heavenly Hundred."* Official portal of the Verkhovna Rada of Ukraine, February 11. Available at: <https://zakon.rada.gov.ua/laws/show/69/2015>.
15. DPU. (2017). *Decree of the President of Ukraine "On the decision of the National Security and Defense Council of Ukraine of December 29, 2016", On the Doctrine of Information*

- Security of Ukraine*". Official website of the Verkhovna Rada of Ukraine, February 25. Available at: <https://zakon.rada.gov.ua/laws/show/47/2017>.
16. DPU. (2019). *Decree of the President of Ukraine "On the Strategy of National-Patriotic Education"*. Official website of the Verkhovna Rada of Ukraine, May 18. Available at: <https://zakon.rada.gov.ua/laws/show/286/2019>.
17. Gnatiuk, O. (2018). The renaming of streets in post-revolutionary Ukraine: regional strategies to construct a new national identity. *AUC Geographica*, 53 (2), 119-136.
18. Gonzalez, F., Juan, C., & Murphy, M.D. (1997). Street names and political regimes in an Andalusian town. *Ethnology*, 36(2), 123-148.
19. Guyot, S. & Seethal, C. (2007). Identity of place, places of identities, change of place names in post-apartheid South Africa. *The South African Geographical Journal*, 89(1), 55-63.
20. Johnston, R. & Ripmeester, M. (2009). Awake anon the tales of valour: the career of a war memorial in St. Catherines, Ontario. *The Canadian Geographer*, 53(4), 404-426.
21. Kadmon, N. (2004). Toponyms and geopolitics: the political use – and misuse – of geographical names. *The Cartographic Journal*, 41, 85-87.
22. Khitrova, T.V. (2016). Discourse «Decommunisation» in a public plane of contemporary Ukrainian information space. *International Letters of Social and Humanistic Sciences*, 68, 1-6.
23. Kulyk, V. (2016). National Identity in Ukraine: Impact of Euromaidan and the War. *Europe-Asia Studies*, 68(4), 588-608.
24. MDU. (2017). *Order of the Ministry of Defense of Ukraine "On approval of the Concept of strategic communications of the Ministry of Defense of Ukraine and the Armed Forces of Ukraine"*. Official portal of the Verkhovna Rada of Ukraine, November 22. Available at: http://www.mil.gov.ua/content/mou_orders/612_nm_2017.pdf.
25. Meyer, S. (2006). Dwie drogi do alei Stalina. Zmiany nazw ulic w Warszawie i Berlinie Wschodnim (1945-1950). *W połowie drogi. Warszawa między Paryżem a Kijowem*, Kochanowski, Jerzy (eds). Warszawa: Trio, 105-174.
26. Różycki, B. (2018). Renaming urban toponyms as a mean of redefining local identity: the case of street decommunization in Poland. *Open Political Science*, 1: 20-31.
27. Sasse, G. & Lackner, A. (2019). War and state-making in Ukraine: forging a civic identity from below? *Ideology and politics*, 1(12), 75-98.
28. Stadnichenko, O.I. (2010). Information space of Ukraine in the system of international information influences. *Gileia: Scientific Bulletin*, 38, 476-480.
29. Viejo-Rose, D. (2014). *Reconstructing Spain. Cultural Heritage and Memory after Civil War*. Brighton-Chicago-Toronto: Sussex Academic Press, 336.
30. VRU. (1992). *Law of Ukraine "On Information"*. Official website of the Verkhovna Rada of Ukraine, October 2. Available at: <https://zakon.rada.gov.ua/laws/show/2657-12>.
31. VRU. (1993). *Resolution of the Presidium of the Verkhovna Rada of Ukraine "On the establishment of a toponymics commission on the Presidium of the Verkhovna Rada of Ukraine"*. Official website of the Verkhovna Rada of Ukraine, April 5. Available at: <https://zakon.rada.gov.ua/laws/show/3084-12>.
32. VRU. (1996). *Constitution of Ukraine*. Official site of the Verkhovna Rada of Ukraine. June 28, Available at: <https://zakon.rada.gov.ua/laws/show/254к/96-bp>.
33. VRU. (2005). *Law of Ukraine "On Geographical Names"*. Official website of the Verkhovna Rada of Ukraine, May 31. Available at: <https://zakon.rada.gov.ua/laws/show/2604-15>.
34. VRU. (2010). *Law of Ukraine "On Culture"*. Official website of the Verkhovna Rada of Ukraine, December 14. Available at: <https://zakon.rada.gov.ua/laws/show/2778-17>.
35. VRU. (2012). *Law of Ukraine "On the Principles of State Language Policy"*. Official website of the Verkhovna Rada of Ukraine, July 3. Available at: <https://zakon.rada.gov.ua/laws/show/5029-17>.
36. VRU. (2015). *Law of Ukraine "On Condemnation of Communist and National Socialist (Nazi) Totalitarian Regimes in Ukraine and Prohibition of Propaganda of Their Symbols"*. Official website of the Verkhovna Rada of Ukraine, April 9. Available at: <https://zakon.rada.gov.ua/laws/show/317-19>.
37. VRU. (2016). *Resolution of the Verkhovna Rada of Ukraine "On renaming certain settlements and districts of the Autonomous Republic of Crimea and the city of Sevastopol"*. Official portal of the Verkhovna Rada of Ukraine, May 12. Available at: <https://zakon.rada.gov.ua/laws/show/1352-19>.
38. VRU. (2018). *Law of Ukraine "On National Security of Ukraine"*. Official website of the Verkhovna Rada of Ukraine, June 21. <https://zakon.rada.gov.ua/laws/show/2469-19>.
39. VRU. (2019a). *Law of Ukraine "On ensuring the functioning of the Ukrainian language as the state language"*. Official website of the Verkhovna Rada of Ukraine, April 24. Available at: <https://zakon.rada.gov.ua/laws/show/2704-19>.
40. VRU. (2019b). *Law of Ukraine "On the legal status and honoring the memory of fighters for the independence of Ukraine in the XX century."* Official website of the Verkhovna Rada of Ukraine, April 9. Available at: <https://zakon.rada.gov.ua/laws/show/314-19>.
41. Yenin, M. (2018). Ideological forms and value modifications of patriotism of Ukrainian youth (based on the analysis of moderated group discussions). *Ideology and Politics*, 2(10), 61-93.
42. Young, C. & Light, D. (2018). The politics of toponymics continuity: The limits of change and the ongoing lives of street names. *The Political Life of Urban Streetscapes Naming, Politics, and Place*. Rose-Redwood, Reuben, Alderman, Derek, & Azaryahu, Maoz (eds). New York: Routledge, 185-201.

Primary Paper Section: A

Secondary Paper Section: AD, AG

THE NATIONAL TELEVISION BROADCAST SPEECH EXPRESSIVENESS AS MEANS OF PSYCHOLOGICAL INFLUENCE ON THE SOCIETY

^aLYUBOV STRUHANETS, ^bIRYNA ZALIPSKA, ^cIRYNA ZADOROZHNA, ^dPAVLO STRUHANETS, ^eNATALIYA DASHCHENKO

^{a,c,d,e}*Ternopil Volodymyr Hnatiuk National Pedagogical University, 2, M. Kryvonosa Str., 46027, Ternopil, Ukraine*
^b*I. Horbachevsky Ternopil National Medical University, 1, Volya Sqr, 46001, Ternopil, Ukraine*
 email: ^a*struhanets_l@tntpu.edu.ua*, ^b*zalips_ija@tdmu.edu.ua*,
^c*zadorozhna.iryana@tntpu.edu.ua*, ^d*struhanets.pavlo@gmail.com*,
^e*nataladash@gmail.com*

Abstract: The article analyzes a problem of the relation and differences between the linguistic sign semantics and text sense. It emphasizes the importance of studying speech expressiveness as a communicative feature. The source of the research was the TV-programs of the Ukrainian mass media. Television is an effective psycholinguistic instrument, because it actively influences mass consciousness with help of linguistic means and forms a public opinion. This is especially prominent in the context of the hybrid war or election campaigns. The research demonstrates that all levels of the linguistic hierarchy are used to convey expressiveness. The article presents the results of a live broadcast news monitoring. The programs content is evaluated with the psycholinguistic parameter «positive information / negative information».

Keywords: Communicative feature lingual identifiers, Live broadcast, Psychological influence, Speech expressiveness, Semantics of linguistic units, Sense of text.

1 Introduction

In different periods of development of psycholinguistic thought, the meaning of linguistic meanings in human speech activity remains relevant. In the late 1980s, B. Holovin posed the question: are the terms "meaning of the text" and "semantics of linguistic signs" identical or different? At first, if the meaning of the text is expressed by signs of language, organized in a speech sequence, then the difference between these signs' meaning and semantics disappears. The scholar warns that we would make a big mistake if we identified the meaning of the text and the semantics of the signs of language that are part of the speech structures that express this meaning [5, p.14]. On such coincidences and differences in the semantics of language signs and the meaning of the text, "personal meanings" of the author, there are interesting thoughts of the famous psychologist. Leontiev, "The constantly reproducing difference of personal meanings, which carry the intentionality, the passion of the subject's consciousness and the "indifferent" meanings to it, by means of which they can only express themselves, does not disappear, and cannot disappear. Therefore, the internal movement of the developed system of individual consciousness is full of drama" [8, p.156]. In addition to these contradictions, we must consider that there is a complex dialectical interaction of personal and social, individual, and general in speech.

The question of the relationship and differences between the semantics of the language sign and the meaning of the text is usually associated with solving the problem of communicative qualities of speech [5, p.38]. We can talk about the semantics of language signs' mutual influence on the meaning and significance of the communicative capabilities of language signs, their speech chains. In communication, the structure of speech expresses a specific meaning of the text. Depending on what it is, how it interacts with the speech structure strengthens or weakens the communicative qualities of speech (characteristics of its content and form).

Some qualities of speech have been known since ancient times and were considered in rhetoric. The scientific approach to the study of communicative qualities (signs) was introduced in the first third of the twentieth century by linguists of the Prague Linguistic Circle. At the end of the twentieth century, scientists call the characteristics of perfect language the criteria for language improvement [4], communicative qualities of speech [5], communicative features of speech [1], communicative and rhetorical qualities of speech [2]. In the works of Ukrainian and foreign scientists, there are more than fifty names of

communicative signs. Many of them have synonymous names: accuracy – specificity; accessibility – intelligibility – clarity; sufficiency – brevity, conciseness; content – informative; expressiveness – emotionality; effectiveness – efficiency, etc. The dominant characteristics include the following: correctness, accuracy, logic, imagery, richness, diversity, accessibility, content, expressiveness of speech. And although in this list expressiveness is not the first position, this feature is significant in mass communication. Nowadays, mass media (including television) is a useful psycholinguistic tool, as it actively influences the mass consciousness through language means and forms public opinion. It is especially noticeable in a hybrid war, during election campaigns.

In Ukrainian psycholinguistics, there is a lack of scientific research devoted to studying the category of "expressiveness," particularly the analysis of this communicative feature in the speech media. It motivates the relevance of the research topic.

The purpose of our article is to analyze the expressiveness of national television broadcasting as a means of psychological influence on society. The priority is to establish and characterize the dominant identifiers of expressiveness at different levels of language hierarchy during oral communication "live".

2 Materials and Methods

The source base of the study consists of live recordings of all-Ukrainian television media during the last decade - 2009-2019, in particular TV channels "First National" (from 07.04.2015 - "UA: First", then PN) (TV program "News" (NV)); "1 + 1" (TV programs "Right to Power" (PV), "Television News Service" (TSN), "Who's There?" (HT)); "Channel 5" (5K) (TV programs "New Time" (LF), "Time of News" (CHN)); "STB" (TV program "Windows" (VK)); "ICTV" (TV program "Facts" (FT)); "Channel 24" (24K) (TV program "News" (NN)), "Football 1", "Football 2" (broadcasts of football matches).

The language of the mass media of the beginning of the XXI century acts as a new functional and stylistic variant of oral literary language. Orality indicates spontaneity, expressiveness, ease, the arbitrariness of the communication process. Participants of the live broadcast are journalists, guests of the studio. Citizens of all ages, women, and men act as callers. Also, the participants in the videos are representatives of different professions and regions of residence. Speech analysis of such a wide range of speakers determines the objectivity of the generalized results. During the live broadcast, the broadcast's participants appeal to specific images, associations between different subject areas, aesthetic attitudes, actualized by the very situation of communication.

The specificity of the research subject necessitated the use of a number of methods: direct observation – to determine the implementation of the communicative feature "expressiveness" live through a system of linguistic identifiers; descriptive method – to characterize the collected factual material; method of complex analysis – for psycholinguistic interpretation of meanings of expressiveness at different levels of the language hierarchy; methods of monitoring the content of television – to assess the content of programs on the psycholinguistic parameter "positive information / negative information."

3 Results and Discussion

In scientific research, we trace different approaches to the interpretation of Expressiveness. They are determined by the vision of the nature of Expressiveness, determining the ratio of such components as emotionality, evaluability, intensity, imagery in the semantic structure of the word. N. Boyko believes that the main load of verbal expression of Expressiveness lies on the units of lexical-semantic level – expressive words [3, p.19]. Among the factors that led to the emergence and consolidation in

the lexical structure of the language of expressive words, the scientist includes:

- 1) The selection of specific referents-denotations by means of emotional and axiological nominations;
- 2) The desire to influence the inner world of the addressee, to evoke in him the appropriate emotions, feelings, inclination to something, etc.;
- 3) Focus on overcoming negative phenomena by condemning, ridiculing typical negative signs and their carriers [3, p.488].

Expressiveness is a property of a language unit to strengthen the logical and emotional meaning of what is said, to act as a means of subjective expression of language. "Expressiveness reveals a connection with emotionality, logical evaluation, stylistic meaning, but does not identify with these concepts. The emotional in the language is always expressive, but not every expressive phenomenon belongs to the emotional ones" [19, p.156]. The Expressiveness of language units is based on psycholinguistic, sociolinguistic, and actually linguistic criteria for evaluating the means of expression. We believe that Expressiveness as a psycholinguistic category deautomatizes the perception of speech, attracts attention, activates human thinking, conveys the speaker's attitude to what is said, and causes the recipient tension of emotions and feelings.

O. Selivanova represents Expressiveness, first, as a sign of intensification of words' meaning on a scale of decrease and increase of various denotative and connotative features, particularly logical content, evaluations, and emotionality. Secondly, in a narrow sense, Expressiveness is identified with one of the connotative shades of the semantics of language units and emotionality, evaluation, and functional-stylistic coloration. She also notes that Expressiveness is manifested at different levels of language [17, p.149].

Psycholinguistic research is dominated by the analysis of speech's emotionality (in our understanding - as a component of Expressiveness). According to L. Perlovsky, "the right level of emotionality is crucial" [12, p.520]. The scholar suggests that languages' emotional content may be more important in influencing cultures than their conceptual content [12, p.524].

The most relevant to the problems of our intelligence is the work of M. Pantti [11]. The scientist considers the importance of emotionality in television news. The scientific studio's general building consists of 32 interviews with professional journalists with a duration of 1–1.5 hours each. Interviews were conducted in Finland from January to May 2006 and in the Netherlands from September 2007 to January 2008. M. Pantti claims that popular journalism focuses on everyday life and thus provokes emotions. According to the author, emotionality in television news determines the emotional state of the original source, the emotionally attractive image, and the topic's actual emotionality of the message [11].

Psycholinguistic studies will also discuss effective ways to more accurately detect human emotions from a variety of sources, including text and speech [15], and recognize emotions in speech using global and local prosodic features [14] on how to determine emotionally specific information using appropriate statistical models [13], etc. In general, such scientific investigations emphasize the importance of well-thought-out research methods to identify signs of emotionality.

In our study, for a holistic analysis of the communicative trait "expressiveness" as a means of psychological influence, a system of linguistic identifiers was developed – the units most important for the characterization of this communicative trait [18]. On the material of various genre programs of the national television, it is established that different levels of language units are used to express expressiveness: both phonetic features, and lexical composition, and grammatical structure of language.

Modern media discourse is a "specific phenomenon based primarily on linguistic and communicative-pragmatic parameters

with a layering of emotionally expressive nuances and other stylistic characteristics of expression" [7, p.99]. The main lingual feature of live broadcasting is spontaneous oral speech. Naturally, expressiveness as a communicative feature is realized primarily at the phonetic level. However, we also include the graphic level in the analysis (we trace the graphics in the titles of the plots), as these levels are interconnected. The following methods of intensification of sounds in information TV programs are recorded:

- 1) Repetition of one syllable: *Nay-nay-naykraschi* (about the Oscar) (1 + 1, TSN, 23.02.2009, 19:39). The prefix *nay* indicates the highest degree of adjectives. Its repetition demonstrates the uniqueness of a certain group of people, as well as expresses the highest level of reward;
- 2) Graphical selection of individual sounds: *The letter "G": Gas!* (1 + 1, TSN, 17.05.2009, 19:52), *Food on the letter "G"* (about GMO products) (1 + 1, TSN, 17.05.2009, 20:04). In the given examples, one marked letter ("G") is presented. However, its semantics is different. The first title of the plot focuses on the gas problem. Journalists independently reveal the content of the message by introducing the token *gas*. The second example highlights the harmful effects of genetically modified foods. The token *food* serves as a verbal hint.

Punctuation marks, in particular three dots, play a unique stylistic role in the text. The specified punctuation mark is polysemantic and indicates:

- 1) Irreversible negative process (about the fall of foreign currency): *The dollar is fall...ing!* (1 + 1, TSN, 17.05.2009, 19:58);
- 2) Replacement of a component with another. For example, everyone knows the story of the resonant construction scam "*Elita-Center*." Many other companies work according to this scheme, so journalists put three dots instead of the token *center*. Thus, they demonstrate the frequency of similar scams: *One more "Elita..."* (1 + 1, TSN, 05.09.2009, 19:56);
- 3) Incompleteness of thought, the possibility of different developments. This stylistic technique encourages the recipient to guess the result or just focus on the plot: *Khotiv, yak krasche...* (1 + 1, TSN, 22.02.2009, 19:41), *Kraschi kukhari...* (1 + 1, TSN, 10.07. 2009, 20:04).

Increasingly popular in the language of the media have become special symbols, especially graphic images. For example, instead of the token *dollar* the sign \$ is used (*\$ aims at ten*) (1 + 1, TSN, 23.02.2009, 19:49). To directly display the expression, the media use the appropriate emoticon symbols, frequency in modern communication, such as: *Terytoriya poZytyvu :)* (1 + 1, TSN, 02.03.2009, 19:39). The sign :) indicates positive emotions and confirms the meaning of the plot title. It should be noted that the English letter Z acquires special expressiveness. It is associated with the token *cheeze* (which means "smile"), that is uttered during photography and which sets a positive mood.

Quotation marks are the most constant sign of expression in the text of the media. Quotation marks indicate the symbolic meaning of words, less often – a quote. The selection of the word sometimes expresses irony: "*Fast*" ATVs (5K, CHN, 10.07.2009, 20:37), "*Doctor Pi*" on the dock (1 + 1, TSN, 21.11.2013, 19:56).

In information-analytical and information-entertainment programs, expressiveness is conveyed by intensifying sounds and using exclamations that "express human emotions or mental states" [9, p.235]. Stretching the sound [o] and exclamation "Oho" expresses surprise: *Do you work for Vodokanal? Oh...* (1 + 1, HT, 03.10.2009, 09:17), *Twelve. Wow-oh-oh-oh, it's like this: it's for two laptops and two more just in case* (1 + 1, HT, 03.10.2009, 09:56). The exclamation well serves to attract attention, increasing the influence of information: *Well, Moscow did not know!* (1 + 1, TSN, 21.11.2013, 20:01); *Well, we wanted this way out today* (1 + 1, PV, 11.07.2019, 22:37).

The basic unit of scanning the listener/viewer/reader of the text (oral or written) is a word that "acts like a laser beam that combines the internal context with the external context of the message" [16, p.219]. At the lexico-phraseological level, the linguistic identifier of expressiveness as a communicative feature of speech is primarily expressive words. Expressively colored vocabulary, as noted by M. Navalna, has a more complex semantic structure than neutral vocabulary. It is characterized by connotative semantics, created by an additional macro component of semantic structure, which absorbs all the information stylistic, evaluative, and emotional functions [10, p.129]. It is the presence in the message of words that have an expressive component in the lexical meaning, which impacts the feelings of the recipient.

For example, in news programs on the topic of elections, frequency phraseology-expressive: *And in Dnipro city now dirty election technologies are ridiculed. The BuckwheatFest festival took place there. Visitors could peel off politicians' political promises, remove noodles from their ears, vote for buckwheat, or sign a fake petition. See how it all happened* (ICTV, FT, 11.07.2019, 20:04), and the phrase vote for buckwheat. The last phrase has recently acquired the status of phraseology and is incomprehensible to viewers.

Precedent expressions always add expressiveness to the text: *Hotily, yak krasche, a vyishlo, yak zavzhdy. Tochnishe, vyishlo navpaky* (1 + 1, TSN, 21.11.2013, 20:07). However, understanding such constructions requires knowledge of the national verbal code.

The expressiveness of expression is given by comparisons – tropical figures in which the linguistic image of a person, object, phenomenon or action is transmitted through the most characteristic features that are organically inherent in others. Comparison is one of the most important visual aids in football reporting, as it is used for a broader explanation of the game moment, to characterize the depicted events, to assess the situation on the field. Attention is drawn to the variety of forms of linguistic explication comparison and the richness of semantic nuances with expressive expressions, such as:

- The commentator criticizes the player because he struck a weak blow on the ball: *He stroked like a kitten girl* (TC "Football 2", 6.12.17, 22:31);
- The game is marked by the saturation of episodes and captivates the viewers: *The lattice is thick as a Christmas jelly, in which a spoon can stand* (TC "Football 2", 03.01.18, 22:05);
- The commentator positively evaluates the combination of the team: *Everything was played perfectly, as per the notes* (TC "Football 2", 19.02.18, 19:12);
- The footballer is compared to the tank because of his physical and game condition (positive assessment): *The real tank center of the field in Tottenham – Victor Vanyama* (TC "Football 1", 10.02.18, 16:12);
- Cross-industry comparison with billiards, when football strikes a hard blow: *He scored a relative in the corner of Ederson, as a skilled billiards player* (TC "Football 2", 10.04.18, 23:19);
- The player was surrounded by footballers of a foreign team but did not lose control of the situation: *He was attacked, as a shoemaker, from five sides* (TC "Football 2", 11.04.18, 23:04);
- The team looks powerless to oppose anything to its rivals: *Now "Roma" is like a fish thrown ashore, which swallows the open mouth of the air and cannot find itself* (TC "Football 2", 24.04.18, 22:17);
- Players of the football club perform dense pressure on their opponents (positive assessment): *"Liverpool" sowed like bees on honey* (TC "Football 2", 24.04.18, 22:23);
- Football player simulates breaking the rules (praise): *Drawn as Picasso* (TC "Football 2", 24.11.18, 18:13);

Comparing the coach with the conductor to indicate excellent control over the team's actions on the field: *Andriy Shevchenko*

now, as a conductor, does not sit down, managing the game (TC "Football 2", 09.09.18, 17:49).

Thus, the comparison as a literary device adds expressiveness to the match's commentary and expresses the journalist's position regarding this football event.

At the morpheme-word-forming level in the expression of expressiveness, first of all, we single out the role of suffixes. According to I. Kochan, they usually give words with different stylistic nuances: affection, affection, diminutiveness, rudeness, increase in quality, etc. [6, p.167]. In some cases, the deliberate use of suffixes of kindness, affection gives the expression an ironic, negative meaning, such as:

- *This is the judge who, on Thursday, according to media reports, closed the high-profile case of the son-major of MP Felix Petrosyan* (5K, NF, 10.07.2009, 20:20). The suffix -k- in this context has a pejorative assessment.

The role of the activator of sensory tension is performed by the tokens formed by means of a negative particle, *ne*: *Nevzhe znovu potopayuchym dovedetsya pokladatysya lyshe na sebe? Kryza plyazhnogo sezonu v Ukraini: hroshey na poryatunok ne vystachaye, ryatuvalnykiv skorochuyut, buykiv – i tykh nemaie. Tsvvilizovanykh plyazhiv tezh obmal. Vsyudy zanepad i hory smiitya. Chysto lyshe na orendovanykh, ale tam svoiy pravyla, i tse schastya ne vsim dostupne. Pro plyazhnyi nesezon Inna Bodnar* (1 + 1, TSN, 15.06.2009, 22:34). The expression is enhanced in the message through the repetition of the particle "ne".

A productive way of expressing expressiveness – occasional innovations: *Artem Alyoshyn followed the garbage can* (1 + 1, TSN, 06.06.2009, 19:32); *They brought a domestic airline to Paris – a passenger plane AN-148* (1 + 1, TSN, 15.06.2009, 22:39). Occasional expressions on TV – an emotional reaction to the subject of the speech. They provide the formation of the appropriate emotional and evaluative psychological tone of the context.

The representative of expressiveness in live television at the syntactic level is parceled constructions: *Did not know. I do not know. And they will not know in the future. The Ministry of Education has decided that newcomers do not need to study the history of Ukraine. On the 18th year of independence, students lose the chance to know the past of the Motherland. Instead of history, officials of the Ministry of Education offer to study the history of Ukrainian culture. It applies to physicists, lyricists, and even athletes* (1 + 1, TSN, 03.06.2009, 22:44). The use of each tense form of the verb reinforces the statement of fact. The essence of the selected figure of expressive syntax explains the further discourse, which verbalizes the indignation of journalists about the Ministry's proposal to withdraw the study in universities of such a basic humanitarian discipline as the history of Ukraine. Irony reinforces the psychological impact of parceling: newcomers do not need to study the history of Ukraine; this applies to physicists, lyricists, and even athletes.

Another means of expression is nominative sentences. They create a psychological effect of mystery, express the idea, force the viewer to activate their own expressive background: *Life to the touch* (1 + 1, TSN, 30.06.2009, 19:42); *Risky purchase* (1 + 1, TSN, 30.06.2009, 20:02); *Excitement* (1 + 1, TSN, 30.06.2009, 20:05); *The Tale of the Glove* (1 + 1, TSN, 06.07.2009, 19:54); *Toothy guest* (1 + 1, TSN, 11.07.2019, 08:04). To enhance the text's expression, journalists resort to stringing sentences: *Christmas in Australian: ocean, sun, and yachts. The legendary yacht regatta started in Sydney* (24K, NN, 26.12.2018, 22:15).

To express the mass media's expressiveness, also use exclamatory sentences: *Vudku do ruk i hayda po skarby!* (1 + 1, TSN, 15.06.2009, 22:47); *Aresh t misyatsya!* (1 + 1, TSN, 16.06.2009, 19:40); *Khvorym – na plyazhi zas!* (1 + 1, TSN, 06.07.2009, 19:46); *Zhyvyi lantsyuh u Mariupoli!* (PN, NV, 14.03.2015, 21:08); *Voyennyi stan ofitsiyno zavershyvsya!* (24K,

NN, 26.12.2018, 22:06); *I v speku, i v zlyvu vony zahyschayut ukrayinsku zemlyu!* (ICTV, 11.07.2019, FT, 18:45). Such sentences usually set an emotional tone to the subsequent message.

Repetition of several exclamatory sentences as a psycholinguistic technique and well-chosen lexical means creates the effect of expressive tension: *Official statistics! In two days in the city center, 67 killed! Doctors from the Maidan reported: "Protesters are dying from sniper bullets! In the morning, people were shot in the head and neck near the Ukraina Hotel!"* (STB, VK, 20.02.2014, 22:09). Such statements are not frequent and refer to significant events in the country.

Interrogative sentences in their expressive capabilities are not inferior to other structures. To analyze the implementation of expressiveness, consider a communication model such as "question-answer": *Will the UEFA commissioners be happy? Will be visible* (1 + 1, TSN, 16.06.2009, 19:47); *Is it legal or not for Mikheil Saakashvili to cross the Ukrainian border? The Mosty District Court in the Lviv Region has not ruled. To be continued on Friday* (24K, NN, 18.09.2017, 22:00); *Will they have time to print ballots? We all learned* (ICTV, FT, 11.07.2019, 18:45). It should be noted that interrogative sentences in interactive and transactional types of communication are devoid of expressive emotion and serve mostly as a means of constructing a conversation: *Has the military origin of the bullet been confirmed, and how does the wounded boy feel?* (1 + 1, TSN, 16.06.2009, 20:03).

Questions with a selective answer should be considered separately. This design creates a high expressive saturation of the text and strong contrast. At the beginning of the message, interrogative sentences deliberately interest the recipient, focusing his attention on the topic: *Brand or panacea? Ukrainians refuse imported pills and are looking for a cheaper replacement for well-known medical brands* (1 + 1, TSN, 29.06.2009, 19:33); *To pay or not to pay? Kiev citizens are in a panic over the numbers in the new utility bills. Tariffs have doubled* (1 + 1, TSN, 13.07.2009, 19:44). Interrogative sentences at the end of the information message are more emotional: *Salary or power? What drives parliamentary blockers?* (1 + 1, TSN, 06.07.2009, 19:33–34).

Incomplete sentences in the language of live broadcasting are used primarily in opposing constructions: *Liver – grief, humanity – benefit* (1 + 1, TSN, 10.07.2009, 20: 06-07); *One garbage – in the furnace, another – the trouble of the Ministry of Emergencies Mon* (NV, 10.07.2009, 21:18); *100 amendments – in half an hour* (24K, NN, 18.09.2017, 22:10). Such sentences allow focusing on the main thing.

Undoubtedly, the above list of types of expressive constructions cannot be considered exhaustive. Trails, stylistic figures, and other language units have powerful psycholinguistic potential. For the most part, different language tools interact in television programs. For example, *24 years behind bars! An Italian court in Pavia has sentenced Ukrainian National Guard member Vitaliy Markiv to prison. He has been in Italy since the summer of the seventeenth. He was then detained and charged with the death of an Italian photojournalist who died in the 14th year of hostilities near Slovyansk. Such a sentence for a National Guard member will be appealed. Interior Ministry spokesman Artem Shevchenko stated this. The Italian court itself is called unfair and shameful in the department.* (5K, CHN, 12.07.2019, 19: 01–04). Epithets are *unjust and shameful, a metaphor to abandon involvement, a nominal exclamation point 24 years behind bars!* confirm the disagreement of journalists with the sentence of Vitaliy Markiv, and the sentence *Such a sentence for the National Guard will be appealed* expresses the genuine concern of Ukrainian society and hope for justice.

According to our observations, the share of messages on national television's negative topics prevails overstatements with positive information. The news is dominated by reports on political events, the economic situation, hostilities, accidents, natural disasters, and other problematic daily realities. As part of the

study, the information program "News Hour" on "Channel 5" on July 12, 2019, was monitored to assess content on the parameter "positive information / negative information". During the 34 minutes of the program, the news covered the following topics: information from the war zone (9 min 40 s), election campaign (6 min 40 s), poor road repairs (4 min), vicissitudes of the lustration bill (2 min), restoration or demolition bust of Zhukov (45 s), about the purchase of weapons by Turkey (1 min 10 s), weather cataclysms (about storms in Greece and the USA) (2 min 50 s), drug distribution (50 s), about the Garden of Eden (2 min 50 s) and a monument dedicated to the heroine of "Game of Thrones" (3 min 15 s). Only the last two of the list were presented with positive information. Thus, television not only verbalizes information, but also psycholinguistic mechanisms affect the consciousness of the recipient.

4 Conclusion

Thus, the speech of the media is characterized by such a permanent communicative feature as expressiveness. Expressiveness reflects the feelings, moods, feelings of the individual concerning what is said.

The dominant lingual identifiers of this communicative feature at the phonetic-graphic level include the repetition of one syllable, the selection of letters, the use of punctuation; at the lexical-phraseological level – expressively colored vocabulary; at the morpheme-word-forming level – suffix; at the syntactic level – parceled constructions, simple, exclamatory, interrogative sentences. The psycholinguistic regularity is confirmed in the national television: the semantics of language signs on the meaning and sense on the communicative possibilities of language signs.

The study of the implementation of communicative features in live television speech makes it possible to qualitatively assess the functioning of the Ukrainian literary language in the mass media space. The media as an important factor in shaping society's speech culture requires permanent research to identify strengths and weaknesses in communication, create an effective program to improve journalists' communication and identify psycholinguistic patterns of influence on the linguistic society.

Literature:

1. Babych, N.D. (1990). *Osnovy kultury movlennia* [Basics of the speech culture]. Lviv: Svit, 232 [in Ukrainian]. ISBN 5-11-000941-4.
2. Batevych, F.S. (2004). *Osnovy komunikatyvnoi linhvistyky* [Basics of the communicative linguistics]. Kyiv: Akademiia, 34. [in Ukrainian]. ISBN 966-580-172-4.
3. Boiko, N.I. (2005). *Ukrainska ekspresyivna leksyka: semantychnyi, leksykohrafichnyi i funktsionalnyi aspekty* [The Ukrainian expressive vocabulary: semantic, lexicographic and functional aspects]. Nizhyn: Aspekt-Polihraf, 552 [in Ukrainian]. ISBN 966-340-118-4.
4. Bulakhovskyi, L.A. (1975). *Vybrani pratsi v 5-ty tomakh* [Selected works in 5 volumes]. Kyiv: Naukova dumka, 496 [in Ukrainian].
5. Holovyn, B.N. (1988). *Osnovy kultury rechy*. Moskva: Vysshaya shkola, 320 [in Russian]. ISBN 5-06-001165-8.
6. Kochan, I.M. (2008). *Linhvistychnyi analiz tekstu* [Linguistic analysis of the text]. Kyiv: Znannia, 42 [in Ukrainian]. ISBN 978-966-346-591-3.
7. Kostusyak, N. & Mezhev, O. (2018). *Prefiksalni innovatsii yak zasib psikhohichnoho vplyvu na svidomist retsyptyentiv* [Prefixing innovations as a way of psychological influence on the recipients' consciousness]. *Psikholinhvistyka – Psycholinguistics*, 24(2), 97–113. <https://doi.org/10.31470/2309-1797-2018-24-2-97-113> [in Ukrainian].
8. Leontev, A.N. (1975). *Deyatelnost'. Soznanie. Lichnost* [Activity. Consciousness. Personality]. Moskva: Politizdat, 304 [in Russian].
9. Majid, A. (2012). Current emotion research in the language sciences. *Emotion review*, 4(4), 432–443. <https://doi.org/10.1177/1754073912445827>.

10. Navalna, M.I. (2014). Leksychni konotatsii yak ekspresyivnyi zasib movlennia [Lexical connotations as an expressive way of speech]. *Psykholinhvistyka – Psycholinguistics*, 16, 127–135 [in Ukrainian].
11. Pantti, M. (2010). The value of emotion: an examination of television journalists' notion of emotionality. *European Journal of Communication*, 25(2), 168–181. <https://doi.org/10.1177/0267323110363653>.
12. Perlovsky, L. (2009). Language and emotions: emotional Sapir-Whorf hypothesis. *Neural Networks*, 22(5–6), 518–526. <https://doi.org/10.1016/j.neunet.2009.06.034>.
13. Rao, K.S. & Koolagudi, S.G. (2013). *Emotion Recognition using Speech Features*. New York: Springer; London: Heidelberg Dordrecht. Available at: <https://www.springer.com/gp/book/9781461451426>.
14. Rao, K.S., Koolagudi, S.G., & Vempada, R.R. (2013). Emotion recognition from speech using global and local prosodic features. *International Journal of Speech Technology*, 16(2), 143–160. <https://doi.org/10.1007/s10772-012-9172-2>.
15. Sailunaz, K., Dhaliwal, M., Rokne, J., & Alhaji, R. (2018). Emotion detection from text and speech: a survey. *Social Network Analysis and Mining*. <https://doi.org/10.1007/s13278-018-0505-2>.
16. Selivanova, O.O. (2008). *Suchasna lnhvistyka: napryamy ta problemy* [Modern Linguistics: directions and problems]. Poltava: Dovkillia-K, 712 [in Ukrainian]. ISBN 966-8791-16-9.
17. Selivanova, O.O. (2010). *Linhvistychna entsyklopediya* [Linguistic encyclopedia]. Poltava: Dovkillia-K, 844 [in Ukrainian]. ISBN: 966-8791-21-5.
18. Struhanets, L., Bobesyuk, O., Veremchuk, O., & Zalipska, I. (2015). *Kultura movy: vid teorii do praktyky* [Culture of language: from the theory to practice]. Ternopil: Navchalna knyha – Bohdan, 216 [in Ukrainian]. ISBN 978-966-10-4438-7
19. Yermolenko, S.Ya. (2000). Ekspresyivnist' [Expressiveness]. *Ukrainska mova. Entsyklopediya – Ukrainian language*. Encyclopedia. Kyiv: Ukrainska entsyklopediya, 156–157 [in Ukrainian]. ISBN 966-7492-07-9.

Primary Paper Section: A

Secondary Paper Section: AI, AJ

ANALYSIS OF TEXTS OF THE AUTHOR'S COLUMN GENRE IN THE UKRAINIAN AND AMERICAN PRESS

^aOLENA TSVIETAIEVA, ^bTETIANA PRYSHCHEPA,
^cDIANA BIRIUKOVA, ^dOLENA PONOMARENKO, ^eOLENA HURKO

^{a,b,d,e}*Oles Honchar Dnipro National University, 72, Gagarina Ave., 49000, Dnipro, Ukraine*
^c*University of Customs and Finance, 2/4, Volodymyra Vernadskogo Str., 49000, Dnipro, Ukraine*
email: ^alenatsv@ukr.net, ^bpettytyrant06@gmail.com, ^cdanuta707@gmail.com, ^dinyazplus@gmail.com, ^ehurko.o.v@gmail.com

Abstract: The purpose of the study is to find out the key features of the author's column in the system of modern personal journalism; to determine its form, genre, and style specifics in Ukrainian and American discursive practice. Columnism, as an American concept of personal journalism, has become a common phenomenon in the columns of modern Ukrainian periodicals. Practical achievements in this direction create empirical preconditions for a fundamental study of this phenomenon in the Ukrainian information space, its genealogical connections with the main genre resources of the Ukrainian media compared to the traditions of American columnism.

Keywords: American press, Analysis of texts, Columnism, Column genre, Ukrainian press.

1 Introduction

Due In Ukraine, columnism is in its infancy, so such thematic diversity and authority of authors as in the American press has not yet been achieved. The modern Ukrainian form of the author's column, which is close to the essay, cannot provide authors' interactive cooperation with readers in the format of a question-answer (advice), which is typical for the Western model of columnism. It happens due to the fundamental functional difference between the Ukrainian column (journalistic in its form) from the American, which has an informational and analytical content and is not marked by specific canons of the genre. Therefore, we believe that the way to the survival of a newspaper column in current conditions is to train their own qualified journalists-columnists.

The author's column's wide popularity on the pages of modern Ukrainian and foreign publications, debatability of its functional varieties, methods of genre identification, means of authorial personification, methods of text organization, and the nature of interaction with the audience determine the relevance of the study.

2 Literature Review

The emergence and distribution of the essay author's column in the Ukrainian media dates back to about 1997 when the newspaper Den appeared on the media market, "positioned as a respectable democratic publication focused on the new political, economic and intellectual elite" [7]. From the beginning of the publication, the management began to involve famous Ukrainian writers in writing columns: Yu. Andrukhovych, Yu. Izdryk, M. Ryabchuk, and V. Zhezher. In the newspaper Den', Andrukhovych introduced the column "Park of Culture," and later the personal project "In other words." The essayist explains the reasons for working with the newspaper as follows: "It is good for me to work for because this is where I have the opportunity to stay by myself and not look for compromises. Because in Den', there is the most incredible space for free intellectual walking, that is, the detection of contrary views" [7]. Yu. Andrukhovych published more than 70 essays on Den' pages, some of which were included in the collection Disorientation in the Field (1999).

The newspaper Den' positions itself as a publication for the intelligentsia. Among the publications of this publication, however, the focus is on historical rather than artistic themes. In the circle of constant personal columns, there are almost no

themes of cinema and theater, modern literature, and art in general.

Approximately the same segment of the readership - the nationally conscious elite, which is looking for materials "for the soul" - and counts the newspaper "Mirror of the Week," which also attracts essay writers (by the way, the same Yu. Andrukhovych) columns.

The author's columns began to be published in Gazeta Po-Ukrainski in 2005 and were placed on the last page. In the organizational structure of newspaper issues, this column is usually considered entertaining. Therefore, most of the author's column texts perform an aesthetic and entertaining function and often have elements of satirical journalism. Publicists V. Zhyzhera, S. Pyrkalo, A. Bondar, M. Ryabchuk, and since 2010 O. Boychenko, J. Hrytsak, and others have been regular columnists of the publication since 2005. The author's stylistics of their texts is marked by the skill of individual style, the peculiarity of journalistic commentary, the author's methods of conceptualizing reality (retrospection, comparison, allegories, etc.). All this ensures the recognition of personal style and creates in the audience the effect of waiting for "your columnist" in the next issue.

In addition, since 2010, full-time journalists, in particular O. Gembik, N. Pavlenko, O. Gunko, Y. Stryhun, have been involved in the genre of the column. Such materials can be attributed to the category of "interpretive" journalism, which researcher T. Khitrova calls a kind of columnism [11].

The newspaper Segodnya is the closest to Western structural and organizational models. This factor directly affects both the subject matter of the columns and the genre-creating elements of personal texts. They can be based on both individual facts and tendentious problems, the coverage of which is characterized by review and commentary elements.

The columnism of American and Ukrainian newspapers has much in common. Linguistic means (lexical, syntactic, figurative) used in personal journalism embody the main functional features of columnism: make the text expansive and voluminous, convey an assessment of the situation, emphasize intonation (swearing, rhetorical questions), illustrate emotions: resentment, disappointment, despair, contempt, confidence (slang, euphemisms, insults), bring the reader closer to the author (detailed descriptions), formulate the problem, demonstrate the author's knowledge of the issue (word formation, phraseological units, foreign language vocabulary), help preserve the authenticity of the event, etc. [8].

3 Materials and Methods

To achieve this goal, the following tasks are set:

- To identify the latest models and trends in the development of the genre structure of Ukrainian media texts in the context of modern socio-cultural progress and the latest communication paradigm;
- To identify common and different means of genre and formation of the modern author's column in Ukrainian and American periodicals by comparing its structural and organizational models;
- To identify compositional and stylistic features, means of personification, and identification of the author's image in the materials of the columns.

The object of research is modern Ukrainian and American columnism.

The research subject is a genre, structural-compositional and stylistic features of the author's column in Ukrainian and American periodicals.

Four American newspapers (The Washington Post, The New York Times, The Los Angeles Times, The Chicago Sun-Times) and four Ukrainian publications were selected for comparative analysis. Den', Dzerkalo Tyzhnya, Gazeta po-Ukrainski, and Segodnya were selected based on typological similarity, rating criterion, and citation index. Functional features of typological differentiation are defined by the following characteristics: level of materials, genre form.

4 Results

Based The Washington Post is one of the largest and most authoritative newspapers in the capital of the United States. Founded in 1877, it is one of the oldest editions with a well-established structural and compositional basis. In 1996, a convergent model of the magazine was presented with its own website (www.Washingtonpost.com) and on-line information system. The priority thematic direction of the newspaper is political and international events.

The Washington Post is one of the few American newspapers to have foreign offices in Baghdad, Beijing, Berlin, Bogota, Islamabad, Jerusalem, Johannesburg, Kabul, London, Mexico City, Moscow, Nairobi, New Delhi, Paris and Tokyo. The Washington Post received 47 Pulitzer Prizes, including six separate awards in 2008.

The New York Times is an American daily newspaper published in New York since 1851. During its existence, the Times received 117 Pulitzer Prizes, more than any other media organization. In particular, in 2010 Sherry Fink was awarded for the best journalistic investigation (reports on the dedicated work of the hospital after Hurricane Katrina). Michael Moss was praised for his contributions to education, as his article on the problems of victims of intestinal infections and the achievements of experienced young scientists in the fight against salmonella has led to significant changes in federal regulation on this issue. Matt Richtel was awarded for an article about the dangerous consequences of using mobile phones while driving.

In addition to its headquarters in New York, the Times has 16 news offices in New York, 11 national and 26 foreign news offices. The newspaper publishes perhaps the most influential constellation of United States columnists, including Thomas Friedman, Frank Rich, Bob Herbert, Gail Collins, Nicholas D. Christoph, and others.

The Los Angeles Times has been a daily newspaper in Los Angeles, California, since 1881. According to opinion polls, it is now the fourth-largest newspaper in the United States and the fourth most widely circulated in the country.

The Los Angeles Times reporter Bettina Boxoll won the 2009 Pulitzer Prize for her outstanding and painstaking development of the cost and effectiveness of forest fire control efforts throughout the western United States. Before that, the newspapers already had 38 Pulitzer Prizes. In 2004, the Los Angeles Times won five awards, ranking third after The New York Times and The Washington Post.

The Chicago Sun-Times is one of the oldest daily newspapers published in Chicago. The first issue appeared in 1844 as a Chicago Evening Journal.

The Chicago Sun-Times has always had talented professional journalists, most notably film critic Roger Ebert and columnist Mike Royko (who worked for the newspaper from 1978 to 1984). Irv Kupcnet began his daily column in 1943 and ran it until his death in 2003. It was a school for many years for his followers, such as Ann Landers, a counselor columnist, and Robert Novak.

The newspaper launched the journalism columnist Bob Greene, film critic Roger Ebert, Mary Mitchell, Richard Roeper, Michael Sneed, Mark Brown, and Mark Brown, religious columnist Cathleen Falsani, Neil Steinberg, sports commentator Rick Telander, Hedy Weiss, Carol Marin, music commentator Jim

DeRogatetes, Jim DeRogatetes Maine (Frank Main), technology expert Andy Ihnatko (Andy Ihnatko) and many others.

Each of the considered American editions, without a doubt, has the specificity which is regulated by canons of editorial policy and features of auditory signs. However, the proposed editions for analysis have a number of standard components:

- News: international, national, regional; business, technology, science, health, sports, education, weather, and obituaries;
- Personal journalism: editor's column, author's thoughts, and letters to the editorial office;
- Entertainment: articles about art, cinema, theater, travel, leadership, cooking, home and garden, fashion and style, psychological advice, crossword puzzles.

Each thematic column is usually the responsibility of a specific professional columnist who is well versed in the issue, has a high rating of trust in readers. Such specialization helps the weekly to be authoritative, to react quickly to political, economic, and cultural events.

5 Discussion

The analysis of the texts of Ukrainian and foreign columnists made it possible to distinguish points of intersection and discrepancy in the specifics of the author's reproduction of reality. The comparison was made on several parameters: the structural organization of the material, the features of the language, in particular, vocabulary, syntax, the use of figurative means, and so on.

Regarding the structural and compositional specifics, the active use of American columnists should be noted to build a column on the principle of "reader's question - the columnist's answer." Thus, columns of useful advice, recommendations of psychologists, medical specialists are structured. An example is James Hochman's *The Daily 202: Five Important Coronavirus Questions That Scientists and Doctors Are Racing to Answer*, a columnist for *The Washington Post*:

"Q. Is there "airborne" transmission of the virus?"

"A. A growing number of studies, including one published this week in the journal *Nature*, have found evidence that the coronavirus can remain suspended in the air in aerosol particles. That raises anew the question of whether and to what extent the virus can be transmitted as an aerosol — although the evidence is far from conclusive and no such infections have been documented," Joel Achenbach and Carolyn Johnson report.

"An alarming report from a restaurant in Guangzhou, China, showed that one infected person who had not yet developed symptoms infected nine other diners. Researchers suggested that an air-conditioning unit recirculating the air could have spread droplets, carrying the virus between tables. 'This just demonstrates the terrible confusion that is created by the common misconception that there's somehow a bright line between aerosols and respiratory droplets,' said Donald Milton, professor of environmental health at the University of Maryland School of Public Health.

"A study from an 11th-floor South Korean call center found that 94 people were infected in a single outbreak, most of them clustered in one half of the office. The authors wrote that the outbreak highlights that the virus is 'exceptionally contagious in crowded office settings such as a call center.' That does not necessarily mean aerosolized particles caused the infections.

"A report, not yet peer-reviewed, from the University of Nebraska Medical Center found virus RNA on the surfaces of cellphones, toilets, bedside tables and exercise equipment used by 13 patients with confirmed cases of covid-19. Samples from the hallway outside patient rooms were also positive for viral RNA, suggesting that aerosols could be spreading the virus, but

again the research did not conclude that the hallway samples were infectious" [10].

Another example is an interesting article by Christine O'Connor, "Doctors answer your coronavirus questions, concerns":

Q. "Will flu shot, and pneumonia shots that I've gotten protect me from developing a serious COVID-19 illness and/or pneumonia?"

A. "Although neither vaccine will prevent infection with COVID-19, both of these vaccines are strongly recommended to keep you healthy and prevent secondary infections like bacterial pneumonia that can occur when you are sick with other viruses like COVID-19" [13].

The reader's appeal contains complaints about health problems, requests for help, a specialist's response - specific advice, clarifications, recommendations.

Unfortunately, this method of organizing the column is not popular in the studied Ukrainian publications. Although it helps to establish feedback, it affects the rating of the column and the publication. In Soviet-era publications, this form was actively used. Nowadays, it is produced mainly in magazines. Borrowing a positive experience of structural construction of columns (or rather a return to the forgotten old) could significantly enrich modern Ukrainian columnism and expand readers' circle of periodicals.

In the lexical aspect, the materials of English-speaking and Ukrainian-speaking columnists are similar: they use a wide range of lexical means that reflect modern language's multifaceted social nature. Against the general neutral background, subjective assessment of the phenomena of reality, which for the most part are not individual but social in nature, is particularly pronounced. Modern columnism is characterized by contrasting different lexical layers: book and colloquial, high and low. However, the materials of American journalists' columns tend more towards a neutral restrained style of information genres. Let's illustrate this with the material "What happened to your American dream?" ("What Happened to Your American Dream?") By an unknown columnist for The Washington Post:

"When and how did your "American dream" die? This is the question the artist Lizania Cruz puts to readers of her project "Obituaries of the American Dream," commissioned by El Museo del Barrio in New York to feature in its first national survey of contemporary work by Latinx artists. The project defines the "American dream" as "the ideal that all individuals can achieve upward mobility based on their hard work" and invites the public to share their experiences, which she posts daily on the project's website.

A participant, Franklin, writes that his dream ended on the day he arrived in Los Angeles and realized that his community was "never expected to develop sustainability outside the realm of manual labor. It was the day my soul split in two." Others wrote of a trip to the barrios of Puerto Rico, of being shamed because they couldn't contribute to the collection basket at Sunday Mass, of the day Malcolm X was killed.

Have you lost faith in your "American dream"? Tell us about it on the form below. We'll share a selection of your experiences in Sunday's Opinion section. Your story may also be included on the project's website and in future works of art by Ms. Cruz" [5].

In Ukrainian personal journalism, colloquialisms and jargon are more widely used to increase expression. It is primarily because Ukrainian columnists mostly came to journalism in literature. Their style tends to art, at least artistic and journalistic. Thus, in Yu. Andrukhovych's column "The Effects of Multiplied Palimpsest", dedicated to the new book of the same name by Yuri Izdryk, expressively colored vocabulary of low style is actively used, "It is not necessary to jerk off already irritated" [3].

The use of slang vocabulary is quite justified in terms of increasing the expressiveness of the text in M. Ryabchuk's material "Our West Side Story" of December 15, 2006. The author tells two stories that happened before his eyes. The first is about a Ukrainian government official who took out a cigar and set it on fire in a New York restaurant where you can't smoke. When a black waiter approached him: "I'm sorry, sir, we don't smoke," the Ukrainian took out a bundle of bucks and unbuckled the waiter's hundred-dollar bill. Type: take, dude, and "dump". To which the American replied: - "Sorry, sir. It's not Russia. It's America."

M. Ryabchuk's vocabulary has features of individual expressiveness and expressiveness: "... of course, the great Russian language and culture, without which we all - well, no way. Well, like: "a hook", "Or, damn it, damn, he wants government officials to speak that language with them too!"

"A handful of Khokhlo-speaking intellectuals, of course, immediately committed violence, rushed to write protests, and even appealed to the conscience (well, I'm sticking out!) Of the mentioned government official. Instead of thanking the Russian-speaking white for his openness, who finally told the Ukrainian-speaking Negroes all the truth they deserved" [14].

Analyzing the political processes in Belarus, M. Ryabchuk boldly asks rhetorical questions "Post-Soviet schizophrenia" or "schizophrenic post-Soviet"? [15].

The use of expressively colored vocabulary in the materials of Yu. Andrukhovych and M. Ryabchuk create the effect of non-standard, increase the text's expressiveness, and enhance its effectiveness. It should be emphasized that the works of these two authors are a standard of Ukrainian columnism. They have their own opinion, a good start and conclusion, and most importantly - a rich lexical composition, which brings journalistic works closer to art.

The vocabulary of another columnist of the Segodnya newspaper, M. Dubinyansky, is less expressive, but this does not mean that there is no opinion of his own: "At one time, the Decembrists woke up Herzen, but how will he wake up an ordinary Ukrainian? What makes our society startle? What, apart from money, can catch people alive and turn ordinary people into active citizens?" [7].

A common feature of the vocabulary of Ukrainian and American authors is the active use of the potential of word-formation. In Yu. Andrukhovych's texts we find such words as: "geopoetics", "Little German", "eSeSeSeR", "cult functionaries", "autogeobiography". The material of Sandra Guy from the Chicago Sun-Times contains the token "obamisation" (derived from the name of Barack Obama), in the material of Eugene Robinson, a columnist for The Washington Post, we find a vivid expression "The Great Shutdown Standoff" dead end"), etc.

The syntax of Ukrainian and American columnism represents similar models: inversion, various types of actualization, repetitions, question-and-answer forms, appeals, nominative, and parceled constructions are often used for expressiveness. Syntactic fragmentation in the presentation of the material creates the illusion of a free, casual narrative, which contributes to the manifestation of the contact-establishing function of language. Let's illustrate this with examples from the texts.

The material of Andrukhovych's "Paris in Photos" in the syntactic aspect is interesting for the masterful use of homogeneous members, punctuation marks, rhetorical questions. The text is about a trip to Paris. The story is told in short static pictures, as if from photographs, "Many water motifs with jets and splashes, columns, fountains, canals, the greenish surface of the Seine ... life on the run with mobile phones and kisses ... Belleville is a very colorful area, in which we lived and fell asleep under the explosions of Arab firecrackers." [9].

In Yu. Andrukhovych's essay column "On the Kyiv-Kharkiv Train" [2] the problem of railway traffic through the use of a

number of rhetorical questions (gradation) turns into an issue of the artificial separation of the country: "... why from Kherson to Odesa (distance between cities - 205 km) there are only two daily trains, one of which arrives at five and the other at half-past six in the morning? Why does the first of them need 6 hours and 13 minutes to cover this distance, and the second - only 6 hours and 8 minutes? Why is it possible to leave Odesa for Chernivtsi once a day only for odd-numbered people? And how to get from Drohobych to Ostroh? And how to get anywhere at all? How to unite this country with its ridiculous, but for some reason such insurmountable distances? There are no ways to connect in this country" [2].

The text of Vitaly Gerera's essay column "So-so miracle" is full of detailed images, comparisons, Appendices ("It is enough that the temperature was almost zero, let it be wet and even warm, and there is slow snow. And it is necessary somewhere in the evening, leaving work to meet a good old friend and to cling to some important conversation for both of you, and for an hour to forget about everything else"). These tools allow you to create in the imagination the appropriate images and mood. "The miracle is that freezing is something you can't do on your own. It enters you from the outside, from a severe big world, like the cold from the halls enters the house when you open the door to let the cat in. And so winter enters you, and you feel its living freshness, strength, and authenticity, and happy - because now this winter will remain with you as something important that you could have missed" [17].

In Andrukhovych's texts, there is even rhythmic speech with internal rhymes, repetitions, inversions, play on words: "But, in addition, it sounds and flows - then as a sermon, then as a story, then as a myth or a film, or a fairy tale, then as an anecdote, although in general, it is not so much a story as a confession. The gift of speech, it is possible, is given to a person to confess" [1, 3, 4].

In the article "Three billion birds have disappeared from our sky. Can we ever bring them back?", the Los Angeles Times columnist, Patt Morrison, observes nominative and parceled constructions, rhetorical questions, repetitions, and numerous exclamatory sentences. Each punctuation mark has a specific, unique semantic load. For example, quotation marks are used to convey direct speech and ironic, satirical coloring, indications of ambiguity. The dash conveys the unexpectedness, the suddenness of the text transition:

"Look! Up in the sky! It's ... not as much as there used to be. Three billion wild birds have vanished from North America's air in 50 years; a new study calls that loss "staggering." Three billion is as many as 1 bird in 4 — birds of the forests, birds of the grasslands, gone. And 50 years is about the same time that it took North America to send the passenger pigeon — once the most abundant bird on the continent, flying by the billions in flocks that blocked the sun for hours at a time — to send it into extinction. These creatures who evolved from the dinosaurs, who delight us with color and song — humans are crowding them out, plowing up and chopping down their habitat, poisoning them with pesticides, installing windows that they smash into, allowing domestic cats to kill them. And just over a century after the nation began protecting its native birds with the landmark Migratory Bird Treaty Act, the Trump administration is ready to weaken its enforcement. Steve Holmer heads the American Bird Conservancy, whose motto is "Bringing back the birds." Can it be done, and how?" [12].

The article "America Is Facing 5 Epic Crises All at Once" by David Brooks, a columnist for The New York Times, has an entirely different but also apparent syntactic organization. Short sentences, parallel constructions, skillful use of homogeneous members enhance the expressiveness of the text:

"There are five gigantic changes happening in America right now. The first is that we are losing the fight against Covid-19. Our behavior doesn't have anything to do with the reality around us. We just got tired so we're giving up. Second, all Americans,

but especially white Americans, are undergoing a rapid education on the burdens African-Americans carry every day. This education is continuing, but already public opinion is shifting with astonishing speed. Third, we're in the middle of a political realignment. The American public is vehemently rejecting Donald Trump's Republican Party. The most telling sign is that the party has even given up on itself, a personality cult whose cult leader is over. Fourth, a quasi-religion is seeking control of America's cultural institutions. The acolytes of this quasi-religion, Social Justice, hew to a simplifying ideology: History is essentially a power struggle between groups, some of which are oppressors and others of which are oppressed. Viewpoints are not explorations of truth; they are weapons that dominant groups use to maintain their place in the power structure. Words can thus be a form of violence that has to be regulated. Fifth, we could be on the verge of a prolonged economic depression. State and household budgets are in meltdown, some businesses are failing and many others are on the brink, the continuing health emergency will mean economic activity cannot fully resume" [6].

The syntax of columnists, in general, is characterized by traditional journalistic constructions (syntactic parallelism, periods, repetitions), but prevalent constructions close to everyday ones. This complexity of the syntactic system is dictated by the author's column's semantic and functional specifics. The syntactic structure is influenced by the general tone - the tone of an open conversation with the reader.

Figurative means (paths, figures), phraseological inversions, winged expressions, proverbs, which are often reinterpreted in the direction necessary for a journalist, are widely represented in column studies.

For example, the vivid image of the endless series in the material of columnist O. Musafirova "Orange Power: Attempt number three" best conveys the realities of post-Maidan politics, "Still, politicians need to remember that the fourth part of the national series" How we loved and parted ... "those who empathize may not remain." The analysis of O. Musafirova's texts made it possible to state that the journalist's vocabulary is generally rich in epithets, comparisons, and other artistic and pictorial means.

Yu. Andrukhovych's journalism is expressive, emotional, based on memories and impressions, aimed at readers' feelings. The most commonly used paths are epithets and metaphors. An illustration is an excerpt from Yu. Andrukhovych's essay "Berlin. Diary pages": "... damn it, my football memory will soon be 40 years old! Just where did it all begin, who will give me? Who answers? I haven't been looking for her for too long. From my father and the first TV in our house... for us in Western Ukraine it was something like a war for independence. And we won it three times in a row. That is why the defeat of Dynamo Kyiv against Spartak Moscow in 1969 was perceived as personal, as a defeat of the people: twenty minutes before my death I began to grumble, and my terribly pale father growled at me: "Stop." He had never shouted at me in his life, and I had never seen him so convulsively crooked and so pale. My cry was the cry of the whole of Ukraine; it grew" [5].

A significant phenomenon in the Ukrainian information space was the publication of a collection called "Author's column", which included 192 columns out of four hundred published in 2005-2007 in "Gazeta po-Ukrainski". This book's value is that, along with the authors' creative heritage, readers are also presented with their generalized life and creative experience, which is included in the preface.

The stories included in the collection were written and published weekly, and the main requirement for them was brevity, wit, frankness, and personal authorial experience. The texts of the columnists of "Gazeta Po-Ukrainski" prove once again that personal journalism is not limited to the periodicity of the newspaper. It remains relevant beyond time, despite its custom nature.

Given the need to write regularly, concisely, and accurately express their views, the authors have to use all their rich experience to use a minimum of language tools to reveal all the nuances. And here, not only journalistic but, to a greater extent, writing experience comes in handy. And, as A. Bondar writes, "under the pen of a columnist, "a column as short as a shot inevitably turns into an anecdote, expression, sketch, parable" [9, p. 230].

V. Zhezhera created truly poetic images in the newspaper pages: "It is good for those who sit still. If I could choose, I would be a spore. This grass grows in old inhabited yards, which are already few, and I left it once. Chickens and girls love this herb.

Did a chicken pinch your hand with its beak - very gently? The same thing happens when they graze there. That's why I want to be a spore, and I have chickens, and I'm not going anywhere from them, and they are from me. The spore has eyes. But he is short, so he sees only what he feels - these chickens and - when a girl walks around the yard. But the spores don't know - has she just come or is she leaving? But he knows otherwise. What I wanted to know as a child: the secret of a girl's foot movement, when she gets on her toes and at the same time makes a fantastic movement, like a bird touching the tail of the earth, and he is about to take off, but then hides in the knot again.

It's like music that floats past you. I would solve that secret. His sin is not to unravel, because in that movement - the brush of God when he wants to draw something beautiful. But he doesn't paint as we do. He paints without stopping the brush" [18].

When the author tells a story that happened to him or witnessed him, she clings to him alive. The author shares his discovery with readers. In our opinion, in this case, the text intertwines the basics of the memoir genre of the diary and the epic - short stories. It is what characterizes the columns in the Ukrainian Newspaper. This creative combination of genre forms allows the authors of the columns to express their opinions freely.

Publicist M. Ryabchuk uses his own creative experience to write materials in various genre forms. He considers his columns: "An essay that unites all genres and from which, perhaps, the shortest way to the most sophisticated genre is" silence. "By "silence" is meant the "addition" of the work by the recipient based on his reasoning over what he has read" [9, p. 230].

Structural-compositional and stylistic analysis of personal columns in Ukrainian periodicals demonstrate a vast arsenal of authors' use of linguistic and stylistic means that diversify and personify journalistic texts and influence their formative features. Ukrainian speakers are more monotonous than American ones. In most cases, they are monologues and have most features of artistic and journalistic genres.

The analysis of American columnism demonstrates a wide range of its formative means, which depend not only on the issues, the author's concept but also the audience's expectations. Dialogic in its structure, American columnism has an information-analytical background, a recommendatory basis for the reader, often due to an eventful informational reason. These factors affect its stylistic features, which, compared to Ukrainian, are less diverse. The author's personification of the text takes place at a slightly different level compared to Ukrainian practice. It appeals to personal experience, presentation of the material in the first person, interrogative-affirmative dialogical self-reflections.

6 Conclusion

The thematic diversity of the author's columns contributes to the success of the periodical. There is a pattern: the more diverse the number of headings, the broader and more differentiated the readership.

Each of these publications has its specifics governed by the canons of editorial policy and the audience's characteristics. The American editions offered for analysis have several common components:

- News: international, national, regional; business, technology, science, health, sports, education, weather, and obituaries;
- Personal journalism: editor's column, author's thoughts and letters to the editorial office;
- Entertainment: articles about art, cinema, theater, travel, leadership, cooking, home and garden, fashion and style, psychological advice, crossword puzzles.

Each thematic column is usually the responsibility of a specific professional columnist who is well versed in the issue, has a high rating of trust in readers. Such specialization helps the weekly to be authoritative, to react quickly to political, economic, and cultural events.

A comparative analysis of the scope of personal journalism in Ukrainian and American publications showed that Ukrainian newspapers have significantly less columnism than similar American publications. For a long time, Ukrainian information journalism neglected the author's columns, pushing them to the pages of literary and artistic or artistic and journalistic publications. It should be noted that the reader's interest in the author's materials is quite high, as evidenced by the popularity of columnists in magazine types of periodicals, which are actively implementing Western conceptual models of publication. Hence, we can predict a tendency to increase the volume of columnism in Ukrainian newspapers. The modern reader seeks to know "his" journalist, to trust his experience, knowledge, and advice.

A comparative analysis of the topics of the author's columns in American and Ukrainian newspapers made it possible to identify conceptual differences. American editors consider it necessary to cover a wide range of thematic sections in the newspaper, each of which is backed by an outstanding professional columnist. Sometimes a new specialist is selected for an existing column, and sometimes a new column is created for a creative person who is able to consider problems in a new way, to place accents. Ukrainian weeklies choose a different path.

As a rule, the newspaper has a set of permanent columns, but they are depersonalized. The reader cannot identify the information with a specific author who has a unique style. Author's columns are either editors-in-chief or publicists, writers, or public figures invited to participate in the creation of the newspaper.

Columnistics of American and Ukrainian newspapers also have much in common. The language tools used by journalists of both countries (lexical, syntactic, figurative) are similar: slang, euphemisms, images, rhetorical questions, phraseological units, etc. They are designed to express the author's position and help preserve the authenticity of the style.

Literature:

1. Andrukhovich, Yu. (1999). Paris in photographs. *Den'*, 150.
2. Andrukhovich, Yu. (2007). In the Kyiv train. *Dzerkalo Tyzhnya*, 21. Kharkiv.
3. Andrukhovich, Yu. (1997). Effects of multiplied palimpsest. *Den'*, 191.
4. Andrukhovich, Yu. (1998). Why do I write for Den'? *Den'*, 174, 8.
5. Andrukhovich, Yu. (2006). Berlin. Pages of the diary. *Dzerkalo Tyzhnya*, 55. Available at: <https://www.nytimes.com/2020/10/27/opinion/american-dream-lazinia-cruz.html>.
6. Brooks, D. (2020). America Is Facing 5 Epic Crises All at Once. *The New York Times*. Available at: <https://www.nytimes.com/2020/06/25/opinion/us-coronavirus-protests.html>.
7. Dubynsky, M. (2012). Awakening in Ukrainian. *Sogodnya*, March 20.
8. Gorokhov, V. (1975). Regularities of journalistic creativity. *Press and journalism*. M.: Mysl', 190.
9. Halych, V. (2009). Columnism as a genre. *Bulletin of Luhansk Taras Shevchenko National University (philological sciences)*, 3(166, 223–233).

10. Hohmann, J. (2020). The Daily: Five important coronavirus questions that scientists and doctors are racing to answer. *The Washington post*. Available at: <https://www.washingtonpost.com/news/powerpost/paloma/daily-202/2020/04/30/daily-202-five-important-coronavirus-questions-that-scientists-and-doctors-are-racing-to-answer/5eaa5763602ff15fb0020e1d/>.
11. Khitrova, T. (2008). Tendencies of transformation of classical genre models into genre thinking in the context of socio-communicative discourse (on the example of "reporting text forms"). *State and Regions. Series: Humanities*, 4, 103–106.
12. Morrison, P. (2020). Three billion birds have vanished from our skies. Can we ever bring them back. *The Los Angeles Times*. Available at: <https://www.latimes.com/opinion/story/2020-03-18/coronavirus-lockdown-consider-the-birds-three-billion-of-which-have-vanished>.
13. O'Connor, K. (2020). Doctors answer your coronavirus questions, concerns. *Clickorlando*. Available at: <https://www.clickorlando.com/news/local/2020/03/05/doctors-answer-your-coronavirus-questions-concerns/>.
14. Ryabchuk, M. (2006). Our West Side Story. *Dzerkalo Tuzhnya*, 47.
15. Ryabchuk, M. (2009). "Post-Soviet schizophrenia" or "schizophrenic post-Soviet"? The phenomenon of social ambivalence in Ukraine and Belarus. Available at: https://uamoderna.com/images/archiv/15/13_UM_15_SovietSpa_dshchyna_Riabchuk.pdf.
16. The New York Times Opinion. (2020). What Happened to Your American Dream? *The New York Times*.
17. Zhezhera, V. (2013). So-so miracle. *Gazeta.ua*. Available at: https://gazeta.ua/articles/zhezhera/_tak-sobi-chudo/483684?Mobile=false.
18. Zhezhera, V., Pyrkalo, S., Bondar, A., & Ryabchuk, M. (2007). Author's column: collection. K.: Nora-Druk, 208.

Primary Paper Section: A

Secondary Paper Section: AI, AJ

METHODOLOGY OF CORPORATE FINANCIAL DIAGNOSTICS IN THE PERIOD OF A CRISIS

^aIRYNA MIHUS, ^bMYKOLA DENYSENKO, ^cIGOR RUMYK,
^dSVETLANA PLETENETSKA, ^eMYKHAILO LAPTEV,
^fVASYL KUPRIICHUK

a,c,d,e "KROK" University, 30-32, Lagernaya Str., 03113, Kyiv, Ukraine

b Kyiv National University of Technologies and Design, 2, Nemirovich-Danchenko Str., 01011, Kyiv, Ukraine

f National Academy for Public Administration under the President of Ukraine, 12/2, Academician Romodanova., 04050, Kyiv, Ukraine

email: ^aIPM@ua.fm, ^b1970aaa@ukr.net, ^c2020R@i.ua, ^d1971ppp@gmail.com, ^e1958ml@gmail.com, ^f1969vk@ua.fm

Abstract: The article is devoted to corporate financial diagnostics' peculiarities in the context of ideas about organizational crises. The economic signs of a crisis enterprise are considered in conjunction with the critical signs of a crisis: a threat to priority goals, suddenness, and lack of time for making anti-crisis decisions. The study of scientific ideas about the crisis, in conjunction with the enterprise's financial characteristics, is a necessary stage in the formation of the methodology of corporate financial diagnostics.

Keywords: Crisis, Enterprise analysis, Financial condition, Financial diagnostics, Financial management.

1 Introduction

Corporate financial diagnostics is an independent and relatively poorly studied area of financial analysis of an enterprise [41]. The term 'corporate financial diagnostics' is rarely used. The closest to it in meaning is the 'corporate financial health assessment,' which is associated with forecasting financial difficulties. Let us consider the diagnosis of the financial activity of an enterprise as a science of financial management. Other authors have studied the problems of corporate financial diagnostics [8]. Still, they did not always manage to draw a clear line between financial diagnostics and analysis of an enterprise's financial condition. Some authors have defined the content of corporate financial diagnostics as establishing the stage at which the company is at the moment and analyzing the company's financial condition [13].

The criterion for assessing an enterprise's financial condition for financial diagnostics is some "proper" or "normal" financial condition, which in diagnostics serves as target states. Financial diagnostics involves studying the state of the object being diagnosed, as well as deviations from its normal state, the causes, and duration of such deviations [41]. Signs of the proper financial condition of an enterprise can be established based on comparison with the requirements of regulatory documents, with conditionally best values, with data from other enterprises, and the values of similar indicators of the analyzed enterprise for different periods [12, 13]. However, the above criteria do not bring us closer to understanding the features of financial diagnostics.

More valuable, from our point of view, is studying the essence of the target financial condition [1]. Note that we can talk not only about the "proper" financial condition. Financial diagnostics can be aimed at recognizing the financial signs of an enterprise crisis. In this case, the diagnosis is associated with identifying signs of financial difficulties by analogy with the diagnosis of diseases in medicine. The second approach essentially brings corporate financial diagnostics closer to assessing a firm's financial health, enriching its theoretical and methodological base [3].

However, the concept of "crisis" has no unambiguous definition. Moreover, it cannot be called merely ambiguous. This term is applied to such a wide range of phenomena, so often and everywhere that the scientific justification of the corresponding definition becomes a challenging task. And at the same time, the study of the crisis's essence is necessary to establish a crisis's key financial signs [9].

2 Literature Review

There are two main mutually complementary approaches to defining a crisis as a scientific category: a crisis can be interpreted as a process (we will conventionally call this interpretation a dynamic one) and as a state (respectively, a static interpretation of a crisis) [22].

Often, a crisis is defined exclusively from a negative perspective, as a particular state of a complex system that threatens its further existence. The reason for the system's crisis state is considered an extreme aggravation of the contradictions existing in it [25]. The concept of "crisis" is applied exclusively to complex systems, the elements of which can be considered as "separate systems, united into a single whole following certain principles or interconnected by given relations" [4, 28, 45, 46]. An example of a complex system is, in particular, a socio-economic system - a set of resources with the obligatory and dominant participation of the human factor.

The objective characteristics of a crisis are as follows:

- 1) The crisis is a turning point in the unfolding sequence of events or actions (this feature is directly related to the etymology of the word "crisis") [8];
- 2) The nature of the crisis is a combination of circumstances giving rise to a new set of conditions [12];
- 3) The crisis poses a threat to the goals and objectives of the persons involved, and even if this threat is not realized (in parentheses, we note that the crisis is a rather unlikely event) [44];
- 4) A crisis requires urgent action on the part of its participants [1];
- 5) The crisis increases the lack of time of the persons involved [41];
- 6) In times of crisis, the information available to participants is usually inadequate [45, 46].

Features of the subjective perception of the crisis are five features:

- 1) Uncertainty in assessing a crisis and justifying alternative options for overcoming it [9];
- 2) Stress and anxiety among the participants in a crisis [11];
- 3) Weakening of control over the events taking place and their consequences [8];
- 4) Increased tension among participants in a crisis [10];
- 5) Changing the relationship of the persons involved [15].

Another characteristic of the signs of a crisis, which has received the most comprehensive recognition in the theory and practice of anti-crisis management, goes back to research on the specifics of a crisis in organizations [12]. According to this approach, the crisis's characteristic features are a surprise, threat, and lack of time for reaction. It is noteworthy that such signs as a threat and a lack of time to make anti-crisis decisions, one way or another, are present in many definitions of a crisis. The authors point to the threat to its existence and a severe lack of time as defining signs of the crisis conditions of the firm's existence.

Abruptness, on the other hand, is not always recognized as a relevant characteristic of a crisis [11]. In addition to the so-called sudden crises of organizations, smoldering crises are also considered in science. These types of crises have been developing for quite a long time and are not unexpected. At the same time, it cannot be denied that crises are difficult to diagnose. In exploring the specifics of corporate governance in emergencies, some problems elude observers, no matter how hard they try, and turn into strategic surprises [14, 27, 35]. In this regard, the point of view that the causes of the crisis are systemically linked, interrelated and interdependent, seems to be very interesting. Analyzing individual signs and causes of the crisis, it is impossible to get a complete picture of their systemic

impact as a rule [17]. That is why crises are so difficult to predict. Thus, characterizing the signs of a crisis, one can speak, at least, about the non-standard nature of the crisis situation, and often about non-standard and suddenness.

A broader interpretation of the crisis takes into account its possible positive consequences [15]. In this case, the crisis is seen as a process of transformation of a complex system. At the same time, the inevitability of this process is usually emphasized: as a result of accumulated contradictions, the system cannot exist in its previous form, and overcoming the crisis is a necessary condition for renewal. Applying the concept of "crisis" in a broad interpretation, the crisis is designated as "threat" and "opportunity" [16]. In economics, priority attention is paid to the broad interpretation of the crisis, which is usually used in conjunction with the concept of life cycles of socio-economic systems [3, 17]. In particular, anti-crisis management of socio-economic systems is based on two basic theoretical premises:

- It is believed that the existence of any socio-economic system is cyclical;
- The cycles of the existence of socio-economic systems are interconnected with crises;
- The crisis is a crucial stage in the development of any socio-economic system [18].

In this sense, the management of any socio-economic system can be anti-crisis [44].

3 Materials and Methods

The methodological basis of corporate financial diagnostics is formed by methods and models for forecasting corporate bankruptcy, which draw us to a wide range of financial signs of an enterprise crisis. Economic research devoted to diagnosing organizations' insolvency has been carried out for more than a decade, but, unfortunately, the question of priority signs of financial difficulties is still open. Empirical studies show that a variety of models for predicting financial insolvency are based on a firm's four basic characteristics: profit, leverage, liquidity, and size [4, 6].

Concerning corporate diagnostics procedures in general and financial diagnostics in particular, it should be noted that they hardly lend themselves to clear formalization. In a crisis, the usual mechanisms do not work or work ineffectively, and, therefore, diagnostics requires the use of non-standard approaches [19].

We have to reckon with the inadequacy of the available information about the enterprise in crisis. The old strategies and plans are not good; the tasks are new, the information that needs to be mastered and studied flows in a stream. Information overload threatens the firm. The suddenness and the likelihood of a major loss are understood hardly in the firm that there is a general panic threat.

At the same time, an enterprise crisis, like any crisis, is characterized by a lack of time for making anti-crisis decisions. In a financial sense, this means that the price of time for a crisis enterprise is the highest [18]. One of the essential features of the crisis and the subjective reaction is the factor of time. Time, as it's known, always has an economical price, which is especially significant during a crisis [20].

In other words, the temporary value of funds for a crisis enterprise increases, which, in turn, is reflected in the assessment of the present value of expected cash flows. This situation can be explained by the fact that the risks associated with the company increase in a crisis. Consequently, the discount rate also increases, the value of which, in particular, depends on the risk associated with the financial transaction. As a result, as can be assumed, investors' profitability and, consequently, the cost of financing increases, which reduces the investment opportunities of the enterprise and reduces its economic potential.

4 Results

An enterprise's crisis (crisis situation) is often defined precisely from the point of view of the threat to the priority goals of its development [22]. However, enterprise development's priority goals are interpreted very broadly and ambiguously, which will allow us to get a more comprehensive picture of the crisis situation. Any goals must be aligned with those of the stakeholders, as people may have goals, but not organizations [25]. If we talk about the goals of enterprise development from the point of view of stakeholders, two main approaches can be distinguished:

1) Maximizing the wealth of the owners. In this case, the priority indicator of the enterprise's proper state is the market value of equity capital (market capitalization of public companies), the steady decline of which is one of the most significant financial signs of the crisis [23].

2) Balance of stakeholders' interests, including shareholders and landlords, counterparties, personnel, regulatory bodies, public organizations, etc. The enterprise crisis threatens the interests of not only the owners but also other stakeholders. As a result, the conflict of interests of the stakeholders only aggravates. Still, during the crisis, the conflict of interests is resolved, and a new conflict of interests and new relationships arises [7, 21, 29, 45, 46].

Features, causes, and ways of overcoming the most significant conflicts in an organization's life, are investigated within the framework of the theory of agency relations, which is one of the fundamental financial concepts [23]. Priority attention, as a rule, is given to conflicts of interest between owners and top managers of the firm and owners and creditors. Company managers, acting as agents of both owners and creditors, are called upon to maintain a balance of their interests, taking into account other stakeholders' interests as much as possible [44]. However, ineffective management is the main cause of enterprise crises. According to some estimates, management errors account for more than 50% of the causes of all corporate crises. Simultaneously, the ineffectiveness of managerial decisions is often explained by managers' opportunistic behavior [25].

The main driver of the agency conflict, along with obstacles to collective action, is considered to be information asymmetry – the uneven distribution of information about an enterprise among stakeholders. The financial opacity of the company and, in particular, the insufficient level of transparency of financial reporting, which, as you know, is the main source of financial information about an economic entity, has a particularly detrimental effect on the development of the conflict [22]. Therefore, the analysis and assessment of financial statements' reliability and impartiality should be one of the most important stages of corporate financial diagnostics.

5 Discussion

Even when it comes to ineffective management, the causes of the enterprise crisis are so complex and numerous that it is a challenging task to predict the moment of its onset, nature, and consequences [26, 33, 34, 39]. In this regard, the crisis's diagnosis is of particular importance as the most important component of successful counteraction to its unfavorable consequences. Diagnostics should meet the following basic requirements: be based on reliable information, be objective, provide an opportunity to obtain unambiguous conclusions, and make the right decisions [30]. Special requirements should be met with respect to the diagnostic system: timeliness of recognition of crisis phenomena, reliability of the recognition result, continuity of the diagnostic process [1, 2, 3, 4, 5].

Analyzing these requirements, it should be emphasized that the diagnostics of the enterprise should be systematic. The system of corporate financial diagnostics is built, taking into account the laws of enterprise development [31, 47]. However, determining a

company's development stage is not easy, primarily because the number of parameters that can be used to characterize this stage is huge.

A systematic approach to solving this issue, as a rule, involves referring to the models of the organization's life cycle as models that set benchmarks for determining the requirements for the proper state, the logic of functioning, or determining the guidelines for the development of the organization [32]. The study of the peculiarities of corporate financial diagnostics in the context of an enterprise's life cycle seems to be a very promising scientific direction. However, one should not forget that the existence of the life cycle of organizations is often questioned. As some empirical studies show, most firms do not move adamantly from one stage of development to another in the traditional biological sense [37]. That is, in the life of an organization, there is more uncertainty than a determinism of development.

The main financial signs of a crisis of an enterprise, like any crisis system, should, it seems, be considered in conjunction with the key signs of a crisis [36, 38]. First of all, we are talking about the threat to the priority goals of the enterprise's development, the suddenness of the onset and (or) the non-standard of the crisis situation, and the lack of time for making anti-crisis decisions. Let us analyze the content of the main financial signs of a crisis enterprise based on this assumption.

In modern conditions, the required profitability does not always correspond to the investment risk. Firstly, equity capital prevails in the structure of enterprise financing [41]. In comparison with creditors, the owners of enterprises are forced to put up with high risks of capital loss with profitability lower than the loan payment.

Secondly, the traditional capital source is the current accounts payable, mostly not associated with fixed financial costs [24, 45]. An increase in the share of accounts payable in liabilities and a commensurate increase in the share of accounts receivable in assets is one of the characteristic financial signs of the crisis of Russian enterprises.

6 Conclusion

A crisis enterprise is characterized by a decrease in market value, existing in conditions of an acute conflict of stakeholders' interests [40]. This conflict's key role is usually played by managers, whose mistakes are one of the most significant causes of corporate crises. In a crisis, one has to reckon with such challenges as the suddenness and (or) non-standardness of the situation, as well as the lack of time for making management decisions, which, in particular, is reflected in the deterioration of the financial situation in the firm's activities and in the increased likelihood of bankruptcy. An adequate financial diagnostics system can prevent the development of a crisis situation and, in any case, is a necessary condition for its successful overcoming [26].

A healthy company can work for a long time and efficiently, but for this to be so. The responsible financier should continuously monitor all processes. It is necessary to permanently diagnose and permanently decide how to keep the company in working order [18].

Summarizing the above, we note that its duality explains the complexity of the crisis phenomenon: on the one hand, the crisis appears as a particular state of a complex system, on the other hand, as a corresponding process of its transformation. A crisis enterprise is not functioning well and needs urgent anti-crisis measures, while the reasons for its current state are numerous and unknown. In our opinion, static and dynamic interpretations of the crisis are not mutually exclusive. It is logical to assume that in the course of a crisis, the state of a complex system at any moment can be characterized by the word "crisis," which in this case will mean a crisis state of the system.

Consistently developing this point of view, we come to an essential conclusion regarding the methodology of corporate financial diagnostics: the practicality of further research of the economic signs of an enterprise crisis (crisis as a state), along with the study of the financial characteristics of enterprise crises in the context of its development (crisis as a process), not only intuitively obvious, but also deliberately due to the essence of the crisis phenomenon.

Literature:

1. Akimova, L., Osadcha, O., & Akimov, O. (2018). Improving accounting management via benchmarking technology. *Financial and Credit Activity-Problems of Theory and Practice*, 1(24), 64-70. doi: 10.18371/FCAPTP.V11 24.128340.
2. Akimova, L.M., Akimov, O.O., Mihus, I.P., Koval, Ya.S., & Dmitrenko, V.I. (2020). Improvement of the methodological approach to assessing the impact of public governance on ensuring the economic security of the state. *Collection of scientific papers: Financial and Credit Activity-Problems of Theory and Practice*, 4(35), 180-190. DOI: <https://doi.org/10.18371/fcaptop.v4i35.221969>.
3. Akimova, L.M., Levytska, S.O., Pavlov, K.V., Kupchak, V.R., & Karpa, M.I. (2019). The role of accounting in providing sustainable development and national safety of Ukraine. *Financial and credit activity: problems of theory and practice*, 30(3), 64-70, doi: 10.18371/FCAPTP.V3I30.179501.
4. Akimova, L.M., Osadcha, O.O., Bashtannyk, V.V., Kondratska, N.M., & Fedyna, K.M. (2020). Formation of the system of financial-information support of environmentally-oriented management of the enterprise. *Financial and credit activity: problems of theory and practice*, 32(1), 434-443. doi: 10.18371/FCAPTP.V11I32.200606.
5. Akimova, L.M., Reinska, V.B., Akimov, O.O., & Karpa, M.I. (2018). Tax preferences and their influence on the investment in Ukraine. *Financial and Credit Activity-Problems of Theory and Practice*, 3(26), 91-101. DOI: 10.18371/FCA PTP.V3I26.144117.
6. Anderson, P.W. (1972). More Is Different. *Science*, 177, 393-396.
7. Andros, S., Akimova, L., & Butkevich, O. (2020). Innovations in management of banks deposit portfolio: structure of customer deposit. *Marketing and Management of Innovations*, 2, 206-220. doi: 10.21272/MMI.2020.2-15.
8. Arslanian, H. & Fischer, F. (2019). The Future of Finance: The Impact of FinTech, AI, and Crypto on Financial Services. *Fintech and the Future of the Financial Ecosystem*. Palgrave Macmillan, 21(312), 201-216. doi:10.1007/978-3-030-14533-0.
9. Beaumont, P.H. (2019). *Digital Finance: Big Data, Start-ups, and the Future of Financial Services*. London, Routledge, 216. DOI: 10.4324/9780429053047.
10. Benito, A. & Vlieghe, G. (2000). Stylised facts on UK corporate financial health: evidence from micro-data. *Financial Stability Review*, 83-93.
11. Bergmann, A. (2016). The link between corporate environmental and corporate financial performance—Viewpoints from practice and research. *Sustainability*, 8, 1219.
12. Bilan, A., Degryse, H., O'Flynn, K., & Ongena, S. (2019). *Banking and Financial Markets: How Banks and Financial Technology Are Reshaping Financial Markets*. Palgrave Macmillan, 11, 221. DOI: 10.1007/978-3-030-26844-2.
13. Cogley, T.W. & Sargent, T. (2008). The Market Price of Risk and the Equity Premium: A Legacy of the Great Depression? *Journal of Monetary Economics*, 55, 454-76.
14. Dokienko, L., Hrynyuk, N., Lapko, O., & Kramarev, H. (2020). Instrumentary Diagnostics of Financial Security of Corporate Facilities. *Financial and credit activity: problems of theory and practice*, 3 (34), 184-194. Retrieved from: <https://fkd.ubs.edu.ua/index.php/fkd/article/view/3133>.
15. Everett, M., McQuade, P., & O'Grady, M. (2020). Bank business models as a driver of crossborder activities. *Journal of International Money and Finance*, 17 February, 102164, 47.
16. Föllmer, H. (2008). Financial Uncertainty, Risk Measures, and Robust Preferences. *Aspects of Mathematical Finance*. Edited by: Yor, Marc. Berlin: Springer.

17. Freeman, R.E. & Evan, W.M. (1990). Corporate governance: A stakeholder interpretation. *J. Behav. Econ.*, 19, 337–359.
18. Friedman, M. (1970). The Social Responsibility of Business is to Increase its Profits. *NY TimesMag.*, 13, 32–33.
19. Frydman, R. & Goldberg, M.D. (2007). *Imperfect Knowledge Economics: Exchange Rates and Risk*, Princeton: Princeton University Press.
20. García-Rodríguez, F.J. García-Rodríguez, J.L., Castilla-Gutiérrez, C., Major, S.A. (2013). Corporate social responsibility of oil companies in developing countries: From altruism to business strategy. *Corp. Soc. Responsib. Environ. Manag.*, 20, 371–384.
21. Harafonova, Olha., Zhosan, Ganna., & Akimova, Ludmila. (2017) The substantiation of the strategy of social responsibility of the enterprise with the aim of providing efficiency of its activities. *Marketing and Management of Innovations*, 3, 2017. 267–279. DOI: 10.21272/MMI.2017.3-25.
22. Hellwig, M. (2008). Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis. *MPI Collective Goods Preprint*, 2008, 43.
23. Hounshell, L. (2018). *The industrial internet of things, digitalization and the future of business*. Retrieved from: <https://www.forbes.com/sites/forbestechcouncil/2018/07/30/the-industrial-internet-of-things-digitalization-and-the-future-of-business/#35c91e04706b>.
24. Hreben, S., Mihus, I., Parashchenko, L., Laptiev, S., & Alkema, V. (2019) The mechanism of financial control over the allocation of budgetary funds depending on the results of scientific activity of a higher education institution. *Financial and credit activity: problems of theory and practice*, 4(31), 446-476. DOI: <https://doi.org/10.18371/fcaptop.v4i31.190998>.
25. Isac, B. (2015). Financial stability an Imperative condition to develop the Enterprise Phenomenon. *Accounting and Finance Research*, 4(2), 14–23. Retrieved from: <http://www.sciedu.ca/journal/index.php/af/article/view/6385>.
26. Korystin, O., Mihus, I., Svyrydiuk, N., Likhovitsky, Y., & Mitina, O. (2020). Money laundering: macroeconomic assessment methods and current trend in Ukraine. *Financial and credit activity: problems of theory and practice*, 1 (32), 341-350. doi:<http://dx.doi.org/10.18371/fcaptop.v1i32.200865>.
27. Kostiukevych, R., Mishchuk, H., Zhidebekkyzy, A., Nakonieczny, J., & Akimov, O. (2020). The impact of European integration processes on the investment potential and institutional maturity of rural communities. *Economics and Sociology*, 13(3), 46–63. doi:10.14254/2071-789X.2020/13-3/3.
28. Levytska, S.O., Akimova, L.M., Zaiachkivska, O.V., Karpa, M.I., & Gupta, S. (2020). Modern analytical instruments for controlling the enterprise financial performance. *Collection of scientific papers: Financial and Credit Activity-Problems of Theory and Practice*, 2(33), 314–323. DOI: 10.18371/FCA PTP.V2I33.206967.
29. Liubkina, O., Murovana, T., Magomedova, A., Siskos, E., & Akimova, L.M. (2019). Financial instruments of stimulating innovative activities of enterprises and its improvements. *Marketing and Management of Innovations*, 4, 2019. 336–352. DOI: 10.21272/MMI.2019.4-26.
30. Lund, S., Windhagen, E., Manyika, J., Härle, P., Woetzel, J., & Goldshtein, D. (2017). *The New Dynamics of Financial Globalization*. McKinsey Global Institute. August 18, 95.
31. Lux, T. & Westerhoff, F. (2009). Economics Crisis. *Nature Physics*, 5, 2–3.
32. Manyika, J., Lund, S., Marc Singer, M., White, O., & Berry, C. (2016). *Digital Finance for All: Powering Inclusive Growth in Emerging Economies*. McKinsey Global Institute, September 21, 9, 112.
33. Mihus, I., Andrienko, V., Molodets'ky, S., & Blikhar, M. (2018). The process of forecasting bankruptcy and raiding as a tool of public monitoring financial security state of Ukraine. *Financial and credit activity: problems of theory and practice*, 1(24), 267-274. DOI: <https://doi.org/10.18371/fcaptop.v1i24.128545>.
34. Mihus, I.P., Haman, P.I., Andriyenko, M.V., & Koval, Y.S. (2019). The state of economic security of Ukrainian banking institutions and the effect of economic reforms on formation of anti-crisis measures. *Financial and credit activity: problems of theory and practice*, 2(29), 32-43. DOI: <https://doi.org/10.18371/fcaptop.v2i29.171997>.
35. Mishchuk, H., Bilan, S., Yurchyk, H., Akimova, L., & Navickas, M. (2020). Impact of the shadow economy on social safety: The experience of Ukraine. *Economics and Sociology*, 13(2), 289–303. DOI: 10.14254/2071-789X.2020/13-2/19.
36. Nelson, W. & Perli, R. (2005). Selected indicators of financial stability, Irving Fisher. *Committee's Bulletin on Central Bank Statistics*, 23, 92–105. Retrieved from: <https://www.ecb.europa.eu/events/pdf/conferences/jcbconf4/Perli.pdf>.
37. Rajan, U., Seru, A., & Vig, V. (2008). *The Failure of Models that Predict Failure: Distance, Incentives and Defaults*. University of Chicago Graduate School of Business, Research Paper No 08–19.
38. Shchedrov, V.I. (2012). On the nature and functions of Finance. *Finances*, 3, 60-62.
39. Shemayeva, L., Mihus, I., Shemayev, V., Shemayev, V., & Melnyk, L. (2020). Application of the model of cross-optimization of financial and material flows in the mechanism of provision of financial security. *Financial and credit activity: problems of theory and practice*, 2(33), 400-410. DOI: <http://dx.doi.org/10.18371/fcaptop.v2i33.207078>.
40. Solow, R. (2008). Reflections on the Survey. Making of an Economist. *Redux*. Edited by Colander, David. Princeton: Princeton University Press.
41. Trumpp, C. & Guenther, T. (2017). Too little or too much? Exploring u-shaped relationships between corporate environmental performance and corporate financial performance. *Bus. Strategy Environ.*, 26, 49–68.
42. Yakymchuk, A.Y., Valyukh, A.M., & Akimova, L.M. (2017). Regional innovation economy: aspects of economic development. *Scientific bulletin of Polissia*, 3 (11), 170–178. DOI: 10.25140/2410-9576-2017-1-3(11)-170-178.
43. Yakymchuk, A.Y., Akimova, L.M., & Simchuk, T.O. (2017). Applied project approach in the national economy: practical aspects. *Scientific Bulletin of Polissia*. 2 (10), Part. 2, 170–177. DOI: 10.25140/2410-9576-2017-2-2(10)-170-177.
44. Yakymchuk, A.Y., Akimov, O.O., & Semenova, Y.M. (2017). Investigating key trends of water resources attraction into economic turnover. *Scientific Bulletin of Polissia*, 1(9), Part. 2, 70–75. DOI: 10.25140/2410-9576-2017-2-1(9)-70-75.
45. Zahorskyi, V.S., Lipentsev, A.V., Mazii, N.H., Bshatnyk, V.V., & Akimov, O.O. (2020). Strategic directions of state assistance to enterprises development in Ukraine: managerial and financial aspects. *Collection of scientific papers Financial and Credit Activity-Problems of Theory and Practice*, 2(33), 452–462. DOI: 10.18371/fcaptop.v2i33.207230.
46. Zahorskyi, V.S., Lipentsev, A.V., Yurystovska, N.Ya., Mazii, N.H., & Akimov, O.O. (2019). Financial and administrative aspects of small business development in Ukraine. *Financial and Credit Activity-Problems of Theory and Practice*, 3(30), 351–360. DOI: 10.18371/fcaptop.v3i30.179717.
47. Novak-Kalyayeva, L., Rachynskyi, A., Bienkowska, D., Karpa, M., & Makovey, J. (2018). Practical potential of theory and methodology of public administration on AHE basis of human rights. *Proceedings of the 32nd International Business Information Management Association Conference, IBIMA 2018 - Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth*, 2032–2039.

Primary Paper Section: A

Secondary Paper Section: AH

PUBLIC ADMINISTRATION AS A SYSTEMIC PHENOMENON IN SOCIETY

^aMARTA KARPA, ^bLIUDMYLA AKIMOVA, ^cOLEKSANDR AKIMOV, ^dNATALIIA SEROHINA, ^eOLEKSII OLESHKO, ^fNATALIIA LIPOVSKA

^aVasyl Stefanyk Precarpathian National University, 57, Shevchenko Str., 76018, Ivano-Frankivsk, Ukraine

^bNational University of Water and Environmental Engineering, 11, Soborna Str., 33000, Rivne, Ukraine

^cInterregional Academy of Personnel Management, 2, Frometivska Str., 03039, Kyiv, Ukraine

^dInstitute for Personnel Training of the State Employment Service of Ukraine, 17, Novovokzalna Str., 03038, Kyiv, Ukraine

^eKharkiv Regional Institute for Public Administration of National Academy for Public Administration under the President of Ukraine, 75, Moskovsky Ave., 61000, Kharkiv, Ukraine

^fDnepropetrovsk Regional Institute of Public Administration, National Academy of Public Administration, Office of the President of Ukraine, 29, Gogol Str., 49000, Dnipro, Ukraine

email: ^a1985kmi@ukr.net, ^bL_akimova@ukr.net,

^c1970aaa@ukr.net, ^d1986snv@gmail.com,

^e1984ooo@gmail.com, ^f1968ln@i.ua

Abstract: The article aims to reveal the concept and principles of public administration as a systemic phenomenon in society. The main task in management is the joint activity of people, their individual groups, and organizations, ensuring coordination and interaction, and its essence is in the implementation of a control effect on particular objects. Social management is a purposeful impact on society for its improvement, preservation, improvement, and development. It consists of two types: self-regulation of society and public administration. Management is purposeful, organizing and regulating influence of people on their personal, social, collective and group life activities, which is carried out both directly in the forms of self-government and with the help of specially created structures, such as the state, public associations, parties, unions, associations, firms and other organizations.

Keywords: Law, Public administration, Organization, Society, Sociology of management.

1 Introduction

The state's activity is a wide object studied by many scientific disciplines: the theory of state and law, administrative law, political science, sociology, sociology of management, conflict management, etc. For example, political science examines the essence and patterns of the political activity of the state. Political sociology studies the social foundations of state institutions and the social conditioning of the principles, forms, and functioning methods. Legal sciences investigate the legal aspects of the functioning of state power [1-7, 24, 26, 31, 35, 37, 40, 50-54].

The sociology of management reveals the universality of self-regulation of the social system. Public administration is a multifaceted education. The subject area of public administration is outlined by the basic concepts: state, politics, public administration, and power. In this regard, the theory of public administration is political and legal science. The definition of public administration theory as a political and legal science will be incomplete if the social aspect is not considered. After all, public administration embodies the interaction of the state and society and interaction with various social system elements. The state is an institution of public (political) power and a public institution, the highest form of modern society [21]. Public administration is a functional analysis of the state, its authorities' activities as a political and legal institution for managing society, and the corresponding political, legal, and social relations [4].

Management is a purposeful impact required for coordinated joint activities of people [36, 52]. The development of society and its individual spheres is impossible without establishing and implementing laws, rules, norms, and an algorithm of its behavior. People create management for the conscious self-regulation of their life. It is of the same importance as family and property, morality and law, mode of production and the state, knowledge, and information. Governance depends on the state of society, ideals, and values. Community is an integral, complex, dynamic self-governing system, the development of which is

subject to objectively effective laws. As a complex system, society consists of subsystems of various kinds (classes and nations, professional, age and other social groups and strata, labor collectives, social organizations, etc.). It develops under the influence of social regulation mechanisms. Social regulation consists in the fact that each subsystem is in the field of ordered, organizing influences, spontaneous and conscious, on the part of society as a whole (its state and other institutions) and the effects of its self-regulation mechanisms (for example, the governing body of a public organization) [10].

The term "public management" was first used by the English civil servant Desmond Keeling in 1972. "Public administration" is the search for the best use of resources to achieve public policy's priority goals. To better reveal the content of the new concept "Public administration", let us turn to the etymology of the words "public" and "government". The concept "public" comes from the Latin word "publicus" - public, popular. The Dictionary of Foreign Words defines the concept "public" as open, vowel, public. The "New Explanatory Dictionary of Ukrainian Speech" provides several meanings of the word "public":

- This takes place in the public, people; public, vowel, open;
- Designed for widespread use; public, general, public. "To manage" comes from the Latin word for "hand."

In the new explanatory dictionary of Ukrainian speech, the word "to manage" has the following interpretation:

- To direct the activity, work of someone, something; to be at the head of someone or something;
- To require the course of a process, to influence the development, the state of something.

The specificity of public administration:

- Public administration is based on state power, supported and provided by it;
- Public administration extends to society and beyond in the sphere of international public policy. It is the state that, through legislative activity, establishes the essential, general, and typical rules (norms) of people's behavior;
- The state endows public administration with systemic quality;
- Public administration differs from the state administration. It is carried out within the supreme law's domination, thanks to the legislatively regulated and practically operating mechanism of society's control over all state authorities and local self-government [8].

Public administration is the activity of public administration subjects, regulated by laws and other regulatory legal acts, to implement laws and other regulatory legal acts by making administrative decisions, providing administrative services established bylaws. The public administration is a set of state and non-state public authority subjects, the key structural elements of which are, firstly, the executive authorities and, secondly, the executive bodies of local self-government.

The need to reform the public administration is due to the inconsistency of executive authorities' existing system and local self-government with the principles of democracy, European standards, and their excessive centralization. The reasons for this situation are:

- Ineffective organization of ministries' activities; the system of executive authorities at the central level is ineffective;
- Ineffective organization of public authorities at the regional and local levels;
- Ineffective local government and lack of parity in the relationship of a person with such bodies. Among the main tasks of the reform of public administration are the following:

- Formation of a stable and effective organization and activity of the executive branch;
- Organization of a professional, politically neutral, and open public civil service (service in the executive branch and local government);
- Creation of a system of capable local self-government;
- Strengthening the status of a citizen in relations with public administration authorities;
- Ensuring the control of the public administration of political power and society [12].

Mechanisms of public administration are special means that ensure the implementation of public administrations' regulatory impact on territorial socio-economic systems of various levels of society and ensure decent living conditions for people living in the state and citizens of the country who temporarily lives outside. The comprehensive public administrative mechanism consists of the following types of tools:

- Economic (mechanism of public administration of banking, monetary, foreign exchange, investment, innovation, credit, tax, insurance activities) [32];
- Motivational (a set of command-administrative and socio-economic incentives that induce civil servants to work highly efficiently) [12];
- Organizational (objects, subjects of public administration, their goals, objectives, functions, management methods and organizational structures, as well as the results of their functioning) [29, 42];
- Political (mechanisms for the formation of economic, social, financial, industrial policy, etc.) [18];
- Legal (regulatory support: laws, resolutions, decrees of the President, resolutions) [11].

In the context of administrative reform and market transformations in the economy, the activity of non-state formations and structures increases, are increasingly taking part in managing not only public but also state affairs in solving political, economic, and socio-cultural problems. State and public administration in their activities do not oppose each other. As types of public administration, they have a lot in common. This is due to the unity of shared interests, goals, and objectives [9, 48].

2 Literature Review

The principles of public administration are closely related to its essence. The principles identified by Peters and Pierre are classic [29]:

1. The principle of territoriality; the basis for the allocation of bodies and the establishment of their competencies is the territorial administrative division of the state, and the main problem is the decentralization of management;
2. The principle of meritocracy (the one that concerns the essence, meaning): consists in defining the standard procedures and skills that make up the essence of public administration;
3. The principle of objectivity: concentrating public administration bodies around particular objects of activity, and within the organization - concentration of employees according to this principle. The main task is to meet the needs of certain social groups;
4. The principle of functionality consists of the division of tasks between public administration subjects to achieve clearly defined goals [29].

The problem, in this case, is the definition of priority goals, and the contradiction is the dilemma between the goals of society and the goals of the administration.

In the literature, it is also quite common to highlight the universal principles of public administration. The main ones are:

- *Openness* means a dialogue with the public to set goals and objectives aimed at achieving them [14, 49];

- *Participation* involves the involvement of citizens in the process of making administrative decisions at all levels of government [8];
- *Accountability* indicates the responsibility of the authorities to be accountable to the population [16];
- *Efficiency* requires policy compliance with public needs, timeliness and efficiency of actions at the lowest possible cost [19];
- *Coherence* means the coherence of various branches and divisions of power and the actions of the government and non-governmental organizations [25].

In terms of activity, the main principles of public administration are:

- The principle of programming - the implementation of the developed activities based on programs is related to the amount of funding;
- The principle of complementarity - the public administration should intervene minimally in the life of society, acting within its powers;
- The principle of subsidiarity - the maximum possible implementation of measures by local means of administration, decentralization of the functions of public administration;
- The principle of concentration - focusing efforts on key areas of development of society following the legitimate government's political priorities [15].

Much credit for the development of this problem belongs to the classical (administrative) school, the famous representatives of which were Fayol [21], Urwick [49], and White [50].

Fayol formulated his theory of administration in 1916, convinced that the provisions and guidelines proposed by him are universal and can be applied in almost all spheres of public life: economy, government, army, etc. [13-17, 18, 19, 20, 22, 43].

Based on this definition, he identified the following management principles:

- Division of labor allows to increase the quantity and quality of the product produced at the same cost and effort;
- The right to give orders and power, which forces you to obey this order;
- Discipline and obedience, which means adherence to set rules in the relationship between the organization and its employees;
- Unity of management, according to which an employee can only give orders for any action by one chief;
- Unity of leadership, which means that a single leader and a single program are needed to implement a set of actions and operations pursuing a single goal;
- Subordination of the private interests of specific employees to the interests of the organization, and interests of individual citizens to the interests of the state;
- Equitable remuneration of personnel, designed to stimulate the diligence and initiative of employees;
- Centralization, the degree of which is determined in each case separately depending on the conditions in which specific organizations, institutions, enterprises operate;
- Rigid hierarchy of leading positions, assumes the strict implementation of orders of higher officials by subordinates;
- A clear definition of the place, authority, and functions of each employee;
- Fairness, which implies an organic combination of benevolence with legal awareness;
- The constancy of the staff, which excludes staff turnover, which is an indicator of an unfavorable state of affairs at the enterprise or institution;
- Initiative of employees;
- The unity of personnel is one of the conditions for the enterprise's viability and efficiency [6, 18, 38, 39, 45, 50].

Developing the ideas of Fayol, Urwick formulated the principles of building a formal organization, which include compliance of people with the structure; creation of a special and general staff; correlation of rights and responsibilities; control range; specialization of employees; the certainty of rights, duties, responsibilities, and relationships [30].

Fayol also identified six main groups of management functions: technical, commercial, financial, insurance, accounting, and administrative. Moreover, he rendered decisive importance to administrative procedures, believing that they carry out the tasks of developing a general program for the organization's activities, recruiting personnel, and coordinating the efforts of various departments [18].

It can be discussed that the functions of public administration are closely related to its principles. The main ones are:

- Prescriptive-regulatory – aimed at establishing the procedure for the activities of authorities, local government, public organizations of individual citizens;
- Direct provision of public services or their provision through appropriate institutions - providing the population with non-market services for budgetary funds;
- Economic and regulatory – aimed at regulating economic activity using permits, licenses, etc., as well as state participation in economic life;
- Organizational – allows you to coordinate and coordinate activities in all spheres of public life in terms of performers, deadlines, and resources;
- Management of public property - carried out for its effective use;
- Expert – consists in the examination of projects for their safety, environmental friendliness, etc.;
- Control – carried out to oversee the course of activities [18].

The functional basis of public administration is made up of administrative regulations and economic and regulatory functions [17].

3 Materials and Methods

The system of public administration in its structure covers the following components: subjects of management (management system), interaction and mutual perception (management activity/process), the public system (objects of management), that is, the spheres and branches of public life. Public administration should reflect the demands and needs of society and focus on the high-quality and efficient provision of public services to the population.

The subjects of public administration are non-state entities. These include various self-governing structures (public organizations, associations) and their bodies. They act as public administration subjects solely on their behalf to resolve issues defined by their statutory documents. Public administration in the public sphere is also carried out by self-organizing the population (house, street, quarter committees, committees of micro-districts, districts in cities, rural, township) [20].

The general systemic methodological principles of public administration in scientific theory call the main provisions, with the help of which the approach is built, and facts are explained. These are guidelines that reflect the content of laws and patterns and should be enshrined in regulatory documents and used in the scientific and practical activities of management specialists:

- 1) Priority of public policy. In this context, the concept of politics means the direction of the state's activities, the definition of principles, its goals, objectives, primary forms, and management methods. Politics serves as a form of generalization and expression of the interests and will of representatives of certain social groups or society as a whole. The political course (strategy) developed above by the authorities and administration is the most critical factor in coordinating government entities' activities at all levels.

The economic, social, cultural, scientific and technical, and other types of policies formulated by the state's central bodies serve as the basis for administrative and public administration in all its aspects.

- 2) The control system is an information system. Its activity directly depends on what information is used by the managing subject. To govern society and the state means to act with reliable, objective information. The principle of objectivity is one of the leading in the public administration system. To adhere to this principle means to proceed from the real state of affairs, not from conditional predictions; continuously analyze managerial actions, make decisions for their compliance with the state's tasks, law, and interests of the population.
- 3) The principle of saving entropy. The concept of entropy in the theory of social control denotes the degree of uncertainty of the situation. The principle of saving entropy characterizes the conditions for ordering a system. The smaller the measurement of entropy, the higher the orderliness of the social system.
- 4) The principle of least action. Its essence is the ability to select from the possible arsenal of managerial actions resulting in the minimum measurement of entropy. In other words, the transition of the object is controlled into the planned state is carried out with the least damage – orientation to the evolutionary development of social life (revolutions and coups are excluded).
- 5) Public administration is a purposeful activity. It also means the rational use of time, one of the main objective factors of social life.
- 6) Public administration is not a comprehensive activity. Its scope is limited to the self-organization of civil society.
- 7) The principle of feedback is one of the main elements of managerial subjective-objective attitude. The principle requires the managing subject constant control over how the controlled object reacts to its actions [21].

Any public administration system is functioning in a specific social environment (i.e., within a specific society and its inherent economic relations, social structure, cultural background, socio-psychological atmosphere). These factors, directly and indirectly, affect the nature of the control system's activity. The peculiarity of subjective-objective relations, the choice of the dominant model of the influence of the ruling power on society largely depends on the specific historical face of a given state's community, its historical traditions. In the historical development of society and the state, political and administrative structures have become more complex and diverse. The volume of information is growing significantly and is being processed by social public administration systems [23].

4 Results

The growing diversity of public life and state institutions and their activities necessitate strengthening social processes regulation and management. Changes are taking place related to the strengthening of regulation in public administration:

- 1) Complications and strengthening of the interrelation of problems and the expansion of the range of factors must be taken into account in developing management decisions [49].
- 2) An increase in the scale and complexity of projects and programs implemented, the significance and cost of strategic decisions, and, accordingly, the cost of possible errors [34, 51].
- 3) The growth of the size, complexity, and cost of the management apparatus itself [1-7, 28, 46, 47].
- 4) Increasing requirements for solving the issues of the efficiency of using the resources available to the authorities and administration [22].

The law of necessary diversity determines the objective possibilities (boundaries) of the governing influence on society, the historical trend of the growing diversity of social life.

The law of delimiting the centers of power and management (separation of powers into legislative, executive, and judicial) means the need for formal and actual delimitation of the functions of public power in management horizontally and vertically into relatively independent branches and levels of government. It should be carried out by various independent bodies (institutions) and require the authorities' mutual restraint, joint limitation, and mutual control. The distribution of powers and control centers does not exclude the unity of public administration and the need for one supreme government subject [24].

The law of centralization and decentralization of power and the organization's hierarchical structure is objectively necessary for public administration. Centralization is the concentration of powers and resources in the hands of a single central body. On the contrary, decentralization is the transfer of powers from top to bottom and the formation of relatively independent organizations, self-sufficient with the necessary information to implement the powers delegated to them by the supreme body [25].

The law of the consistency of the organization of public administration finds its expression in the following patterns:

- The unity of the main functions of management: forecasting and planning, informing, organizing, coordinating and regulating, activating, monitoring, summarizing and evaluating results - at all levels of public administration;
- The unity of the levels of public administration: central, regional, local self-government; the complementarity of public administration and self-government; interaction in a single process of the subjects of management, separated vertically and horizontally;
- The unity of the general and individual systems of public administration [27].

The law of self-development of the public administration system means that state structures of power and administration are being rebuilt by the needs of political and social rationality. The optimal schemes for the distribution of forces between central, regional, and local bodies are made.

5 Discussion

The system is a set of interacting elements that make up a holistic formation with new properties absent in its elements. The social management system consists of the following components:

- The management mechanism is a set of goals, principles, methods, techniques, forms, and incentives of management, the interrelated influence of which ensures the most effective development of a social group, organization, and society as a whole;
- The subject of control is a control system;
- A controlled object is a controlled system;
- Organizational structure, reflecting the composition and subordination of various elements, links, and stages of social management;
- Management cadres - employees performing management functions or contributing to their implementation; that is, they professionally participate in the management process and enter the management apparatus [26, 44, 55].

Management functions are particular types of activities expressing the directions or stages of implementing a targeted impact on people's connections and relationships in the process of the life of society and its management. The primary classification of management personnel is the classification of managers with their participation in making and implementing management decisions. On this basis, management personnel is divided into three main groups: managers, specialists, and auxiliary personnel (technical executors). Management process is an influence of management bodies and personnel on the

management object, using the selected methods to achieve the planned goals [27].

Each social system consists of two independent but interconnected subsystems: controlled and governing. The size and boundaries of the control system depend on the scale and characteristics of the controlled system. The characteristics of the object mainly determine the functioning of the subject of control [2, 41].

The main ways of realizing real democracy and effective public control are the constant improvement of the culture of the population, its rise to a higher educational level; practical self-education of the people through their participation in solving specific political problems at various levels of government; organization of a transparent electoral system that ensures real popular elections. The laws of social management are objective in nature and do not depend on people's will; on the contrary, they determine their will and consciousness (Table 1).

Table 1 – Compliance with laws and management principles

No	Control laws	Management principles	Public administration principles
1	Unity of control system.	The presence of an interconnected system of generalized formal rules and standards.	- Objectivity in terms of compliance with laws; - Legal regulation of management activities; - Compliance with the actual - full control and accounting; - Regulation of processes; - Unity of actions; - Communication; - The vision of the organization as a whole, the activities of the assigned functions; - The unity of the system of public authorities; setting standards for system elements.
2	Combination of centralization and decentralization.	- Distribution of responsibility between managers and performers; - Providing proper conditions; - Direct participation in the work of groups at all stages as a requirement of coordinated work; - Reasonable independence of subordinates; - Territorial and sectoral management organization; - Delegation of authority and responsibility; - Combination of one-person management and collegiality.	- Territorial and sectoral management organization; - Delegation of authority and responsibility; - Combination of one-man management and collegiality; - Feedback.
3	The interdependence of the object and the subject of management.	- Drawing up standards and schedules; - Providing proper conditions; - One-person management; - Subordination of their interests to common; - Feedback; - Corporate spirit; - Loyalty to workers; - Communication; - The quality of personal work; - Monitoring the state of affairs at the facility; - Participation of the facility in assessing the quality of the control action.	- Compliance with the objective laws of social development; - Compliance with the interests of the people, - Variety of specific functions; - Focus on constant renewal; - Taking into account the rate of development of managed objects in the formation of management decisions; - Ability to listen to managers and clients; - Publicity; - Democracy.
4	Compliance	- Full control and	- The relationship between

	with authority and responsibility.	accounting; - Providing proper conditions; - The relationship between power and government; - Delegation of conditions; - Standardization of operations; - One-person management; - Order; - The quality of personal work of authority and responsibility.	power and government; - Delegation of authority and responsibility; - Specification of management activities and personal responsibility.
5	Purposefulness of building and functioning of the system.	- Formulated goals; - Subordination of their interests to common; - Timely response to changes in the environment.	- Subordination of local goals to a common goal; - Contradiction of goals; - Complementarity of goals; - Consistency in achieving the entire set of goals; - Distribution of plans by functions of public administration; - Clarification of purpose when circumstances change; - Correspondence of system elements to a specific purpose.
6	The exclusive role of human creative activity in the organization.	- Application of wages as a monetary incentive; - Discipline; - Application of wages as a financial incentive; - Discipline; - Honesty in business; - High-quality operation of the control system; - Reward; - Fairness; - Staff stability; - Initiative; - An atmosphere that promotes the disclosure of the abilities of employees; - Methods of working with people that bring pleasure from work; - Ethics of business conduct; - Complexity of using management methods.	- Application of wages as a monetary incentive; - Discipline; - Application of wages as a monetary incentive; - Discipline; - Honesty in business; - High-quality operation of the control system; - Reward; - Fairness; - Staff stability; - Initiative; - An atmosphere that promotes the disclosure of the abilities of employees; - Methods of working with people that bring pleasure from work; - Ethics of business conduct; - Complexity of using management methods.

Control laws reflect the most essential, necessary, stable, and repetitive connections between the system and participants' elements in its functioning and development processes, helping to reveal their nature and internal content.

6 Conclusion

One of the state's essential activities is implementing support programs at the required level of the aggregate demand of the population, ensuring a high level of employment, servicing the social sphere, providing unique tax benefits and guarantees to investors, and the like. It should be noted that the public goods supplied by the state include:

- Services for national defense [8];
- Security agencies [17];
- Structures for preventing and eliminating the consequences of an emergency of a natural, climatic, and human-made nature [10].

They are joined by services provided by highways, health care, education, and culture. Although they can be provided through market mechanisms, they cannot fully meet public needs. These include goods and services that the market system does not intend to provide at all.

Social justice, which is one of the main functions of the state, provides a fair distribution of income and a more or less equal distribution of services, rights, and obligations. It is the state regulation of the market, the limitation of competition by the limits of law and order that can ensure social justice and lay the foundation for a more or less reliable system of social protection.

The high manufacturability of the final product and the manufacturability of the country's production is mainly determined by the national level of training of specialists of all, without exception, branches of the public economy. But the achievement of this goal is possible only if the training and advanced training of the labor force is coordinated throughout the country. It is impracticable without appropriate government influence. The state's role is significant in the formation of human capital and the development of new technologies.

Literature:

1. Akimova, L., Osadcha, O., & Akimov, O. (2018). Improving accounting management via benchmarking technology. *Financial and Credit Activity-Problems of Theory and Practice*, 1(24), 64-70. DOI: 10.18371/FCAPTP.V1I24.128340.
2. Akimova, L.M., Akimov, O.O., Mihus, I.P., Koval, Ya.S., & Dmitrenko, V.I. (2020). Improvement of the methodological approach to assessing the impact of public governance on ensuring the economic security of the state. *Collection of scientific papers Financial and Credit Activity-Problems of Theory and Practice*, 4(35), 180-190. DOI: <https://doi.org/10.18371/fcaptp.v4i35.221969>.
3. Akimova, L.M., Levytka, S.O., Pavlov, K.V., Kupchak, V.R., & Karpa, M.I. (2019). The role of accounting in providing sustainable development and national safety of Ukraine. *Financial and credit activity: problems of theory and practice*, 30(3), 64-70. DOI: 10.18371/FCAPTP.V3I30.179501.
4. Akimova, L.M., Osadcha, O.O., Bashannyk, V.V., Kondratska, N.M., & Fedyna, K.M. (2020). Formation of the system of financial-information support of environmentally-oriented management of the enterprise. *Financial and credit activity: problems of theory and practice*, 32(1), 434-443. DOI: 10.18371/FCAPTP.V1I32.200606.
5. Akimova, L.M., Reinska, V.B., Akimov O.O., & Karpa, M.I. (2018). Tax preferences and their influence on the investment in Ukraine. *Financial and Credit Activity-Problems of Theory and Practice*, 3(26), 91-101. DOI: 10.18371/FCA PTP.V3I26.144117.
6. Akimova, L.M., Akimov, O.O., & Liakhovich, O.O. (2017). State regulation of foreign economic activity. *Scientific Bulletin of Polissia*, 4(12), Part 1, 98-103. DOI: 10.25140/2410-9576-2017-1-4(12)-98-103.
7. Akimova, N. & Akimova, A.I. (2018). Text Understanding as a Special Kind of Understanding. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*, 24(1), 27-46. DOI: <https://doi.org/10.31470/2309-1797-2018-24-1-27-46>.
8. Andros, S., Akimova, L., & Butkevich, O. (2020). Innovations in management of banks deposit portfolio: structure of customer deposit. *Marketing and Management of Innovations*, 2, 206-220. DOI: 10.21272/MMI.2020.2-15.
9. Ansell, C., Levi-Faur, D., & Trondal, J. (2017). An organizational-institutional approach to governance. In C.K. Ansell, J. Trondal, & M. Ogard (Eds.). *Governance in turbulent times*, Oxford: Oxford University Press, 27- 54.
10. Bach, T. & Wegrich, K. (2018). *The blind spots of public bureaucracy and the politics of non-coordination* (Eds.), Basingstoke: Palgrave Macmillan.
11. Biber, E. (2009). Too many things to do: How to deal with the dysfunctions of multiple-goal agencies. *Harvard Environmental Law Review*, 33, 1- 63.
12. Blau, P.M., & Scott, W. R. (1963). *Formal organizations: A comparative approach*. San Francisco, CA: Chandler.
13. Campbell, C. (1983). *Governments under stress: Political executives and key bureaucrats in Washington, London, and Ottawa*. Toronto: University of Toronto Press.

14. Carrigan, C. (2017). *Structured to fail? Regulatory performance under competing mandates*. Cambridge: Cambridge University Press.
15. Child, J. (1997). Strategic choice in the analysis of action, structure, organizations and environment: Retrospect and prospect. *Organization Studies*, 18(1), 43–76.
16. Christensen, J. (2017). *The power of economists within the state*. Redwood City, CA: Stanford University Press.
17. Döhler, M. (2011). Regulation. In M. Bevir (Ed.), *The Sage handbook of governance*. London: Sage, 518–534.
18. Du Gay, P. & Lopdrup-Hjorth, T. (2016). Fear of the formal. *European Journal of Cultural and Political Sociology*, 3(1), 6–40.
19. Egeberg, M. (1999). The impact of bureaucratic structure on policy making. *Public Administration*, 77(1), 155–170.
20. Eisner, M.A. (1991). *Antitrust and the triumph of economics: Institutions, expertise, and policy change*. Chapel Hill, NC: UNC Press Books.
21. Fayol, H. (1917). *Administration industrielle et générale*. Paris: Dunod et Pinat, 174.
22. Fourcade, M., Ollion, E., & Algan, Y. (2015). The superiority of economists. *Journal of Economic Perspectives*, 29(1), 89–114.
23. Froeb, L.M., Pautler, P.A., & Röller, L.-H. (2009). The economics of organizing economists. *Antitrust Law Journal*, 76, 569–584.
24. Hall, P. A., & Taylor, R. C. (1996). Political science and the three new institutionalisms. *Political Studies*, 44(5), 936–957.
25. Halpin, D.R. (2014). *The organization of political interest groups: Designing advocacy*. London: Routledge.
26. Hammond, T.H. (2010). Intelligence organizations and the organization of intelligence. *International Journal of Intelligence and Counter Intelligence*, 23(4), 680–724.
27. Harafonova, O., Zhosan, G., & Akimova, L. (2017). The substantiation of the strategy of social responsibility of the enterprise with the aim of providing efficiency of its activities. *Marketing and Management of Innovations*, 3, 267–279. DOI: 10.21272/mmi.2017.3-25.
28. Herring, R.J. & Carmassi, J. (2008). The structure of cross-sector financial supervision. *Financial Markets, Institutions & Instruments*, 17(1), 51–76.
29. Hreben, S., Mihus, I., Parashchenko, L., Laptiev, S., & Alkema, V. (2019) The mechanism of financial control over the allocation of budgetary funds depending on the results of scientific activity of a higher education institution. *Financial and credit activity: problems of theory and practice*, 4(31), 446-476. DOI: <https://doi.org/10.18371/fcaptop.v4i31.190998>.
30. Jaccard, J. & Jacoby, J. (2009). *Theory construction and model-building skills: A practical guide for social scientists*. New York: Guilford Press.
31. Jensen, M.C. (1983). Organization theory and methodology. *Accounting Review*, 58(2), 319–339.
32. Kalyayev, A., Efimov, G., Motornyy, V., Dzyanyy, R. & Akimova, L. (2019). Global Security Governance: Conceptual Approaches and Practical Imperatives, Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: *Education Excellence and Innovation Management through Vision 2020*, 10-11 April 2019, Spain, Granada, 4484-4495.
33. King, B.G., Felin, T., & Whetten, D.A. (2010). Finding the organization in organizational theory: A meta-theory of the organization as a social actor. *Organization Science*, 21(1), 290–305.
34. Korystin, O., Mihus, I., Svyrydiuk, N., Likhovitsky, Y., & Mitina, O. (2020). Money laundering: macroeconomic assessment methods and current trend in Ukraine. *Financial and credit activity: problems of theory and practice*, 1 (32), 341-350. doi:<http://dx.doi.org/10.18371/fcaptop.v1i32.200865>
35. Kostiukevych, R., Mishchuk, H., Zhidebekkyzy, A., Nakonieczny, J., & Akimov, O. (2020). The impact of European integration processes on the investment potential and institutional maturity of rural communities. *Economics and Sociology*, 13(3), 46-63. doi:10.14254/2071-789X.2020/13-3/3
36. Levytska, S. O., Akimova, L.M., Zaiachkivska, O.V., Karpa, M. I., & Gupta, Sandeep Kumar. (2020) Modern analytical instruments for controlling the enterprise financial performance // *Collection of scientific papers Financial and Credit Activity-Problems of Theory and Practice*. 2(33), 314-323. DOI: 10.18371/FCAPTP.V2I33.206967
37. Levytska, S., Krynychnay, I., Akimova, A., & Kuzmin, O. (2018). Analysis of business entities' financial and operational performance under sustainable development. *Financial and credit activity: problems of theory and practice*, 25(2), 122–127. DOI: 10.18371/fcaptop.v2i25.13647610.
38. Liubkina, O., Murovana, T., Magomedova, A., Siskos E., & Akimova, L.M. (2019). Financial instruments of stimulating innovative activities of enterprises and its improvements. *Marketing and Management of Innovations*, 4, 336-352. DOI: 10.21272/MMI.2019.4-26.
39. Mihus, I., Andrienko, V., Molodets'ky, S., & Blikhar, M. (2018) The process of forecasting bankruptcy and raiding as a tool of public monitoring financial security state of Ukraine. *Financial and credit activity: problems of theory and practice*, 1(24), 267-274. DOI: <https://doi.org/10.18371/fcaptop.v1i24.128545>.
40. Mihus, I.P., Haman, P.I., Andriyenko, M.V., & Koval Y.S. (2019) The state of economic security of Ukrainian banking institutions and the effect of economic reforms on formation of anti-crisis measures. *Financial and credit activity: problems of theory and practice*, 2(29), 32-43. DOI: <https://doi.org/10.18371/fcaptop.v2i29.171997>.
41. Mishchuk, H., Bilan, S., Yurchyk, H., Akimova, L., & Navickas, M. (2020). Impact of the shadow economy on social safety: The experience of Ukraine. *Economics and Sociology*, 13(2), 289-303. doi:10.14254/2071-789X.2020/13-2/19.
42. Novak-Kalyayeva, L., Rachynskyi, A., Bienkowska, D., Karpa, M., & Makovey, J. (2018). Practical potential of theory and methodology of public administration on AHE basis of human rights. *Proceedings of the 32nd International Business Information Management Association Conference, IBIMA 2018 - Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth*, 2032–2039.
43. Osadcha, O.O., Akimova, A.O., Hbur, Z.V., & Krylova, I.I. (2018). Implementation of accounting processes as an alternative method for organizing accounting. *Financial and credit activity: problems of theory and practice*, 27(4), 193–200. DOI: 10.18371/FCAPTP.V4I27.154194.
44. Peters, B. & Pierre, J. (2017). *Governance, politics and the state*. Red Globe Press.
45. Shamne, A., Dotsevych, N., & Akimova, Al. (2019). Psychosemantic Peculiarities of Promotional Videos Perception. Psycholinguistic Projection. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*, 25(1), 384-408. DOI: 10.31470/2309-1797-2019-25-1-384-408.
46. Shemayeva, L., Mihus, I., Shemayev, V., Shemayev, V., & Melnyk, L. (2020). Application of the model of cross-optimization of financial and material flows in the mechanism of provision of financial security. *Financial and credit activity: problems of theory and practice*, 2(33), 400-410. DOI: <http://dx.doi.org/10.18371/fcaptop.v2i33.207078>.
47. Shytyk, L. & Akimova, Al. (2020). Ways of Transferring the Internal Speech of Characters: Psycholinguistic Projection. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*, 27(2), 361-384. DOI: <https://doi.org/10.31470/2309-1797-2020-27-2-361-384>.
48. Skliarenko, O., Akimova, Al., & Svyrydenko, O. (2019). Psycholinguistic Peculiarities of Contextual Realisation of Concept MACHT in Linguistic and Cultural Space of German's. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*, 26(2), 321-340. DOI: 10.31470/2309-1797-2019-26-2-321-340.
49. Urwick, L. (1956). *The Pattern of Management*. University of Minnesota Press.
50. White, L. (1958). *The Republican Era, 1869–1901: A Study in Administrative History*. MacMillan.
51. Yakymchuk, A.Y., Valyukh A.M., & Akimova L.M. (2017). Regional innovation economy: aspects of economic development. *Scientific bulletin of Polissia*, 3(11), Part 1, 170-178. DOI: 10.25140/2410-9576-2017-1-3(11)-170-178.
52. Yakymchuk, A.Y., Akimova, L.M., & Simchuk, T.O. (2017). Applied project approach in the national economy:

practical aspects. *Scientific Bulletin of Polissia*, 2(10), Part 2, 170-177. DOI: 10.25140/2410-9576-2017-2-2(10)-170-177.

53. Yakymchuk, A.Y., Akimov, O.O., & Semenova, Y.M. (2017). Investigating key trends of water resources attraction into economic turnover. *Scientific Bulletin of Polissia*, 1(9), Part 2, 70-75. DOI: 10.25140/2410-9576-2017-2-1(9)-70-75.

54. Zahorskyi, V.S., Lipentsev, A.V., Mazii, N.H., Bashtannyk, V.V., & Akimov O.O. (2020). Strategic directions of state assistance to enterprises development in Ukraine: managerial and financial aspects. *Collection of scientific papers Financial and Credit Activity-Problems of Theory and Practice*. 2(33), 452-462. DOI: <https://doi.org/10.18371/fcaptp.v2i33.207230>.

55. Zahorskyi, V.S., Lipentsev, A.V., Yurystovska, N.Ya., Mazii, N.H., & Akimov, O.O. (2019). Financial and administrative aspects of small business development in Ukraine. *Financial and Credit Activity-Problems of Theory and Practice*, 3(30), 351-360. DOI: <https://doi.org/10.18371/fcaptp.v3i30.179717>.

Primary Paper Section: A

Secondary Paper Section: AD, AE, AF

DEVELOPMENT OF THE FINANCIAL AND ECONOMIC SECURITY OF THE COMPANY BASED ON THE SUPERINTENDENCE OF ITS BUSINESS ACTIVITY

^aVASILY KUPRIICHUK, ^bLARISA PERSHKO, ^cOKSANA KYRYCHENKO, ^dHALINA NESTERENKO, ^eKATERYNA DANYLYUK, ^fIRYNA KVELIASHVILI

^{a,d}National Academy for Public Administration under the President of Ukraine, 12/2, Academician Romodanova., 04050, Kyiv, Ukraine

^bHigher Educational Institution "Institute of Ecology of Economics and Law", 11, Turgenevskaya Str., 01054, Kiev, Ukraine

^c"KROK" University, 30-32, Lagernaya Str., 03113, Kyiv, Ukraine

^eRivne State Humanitarian University, 31, Plastova Str., 33000, Rivne, Ukraine

^fUniversity of Customs and Finance, 2/4, Volodymyr Vernadsky Str., 49000, Dnipro, Ukraine

email: ^a1969vk@ua.fm, ^b1970aaa@ukr.net, ^c1989ok@i.ua, ^d2020kd@gmail.com, ^e1988kd@gmail.com, ^fkvelin69@ukr.net

Abstract: The article aims to substantiate and develop measures to improve industrial enterprises' financial and economic security based on their business activity management. This study analyzes the factors that shape the business activity of modern companies. The crisis phenomena in the contemporary economy have led to an increase in the importance of the issues of managing the financial and economic security of industrial pursuits. The dynamism of the external and internal environment requires industrial enterprises' management to search for ways to improve the safety of their financial and economic activities. The article presents proposals to develop the financial and economic security of businesses.

Keywords: Business activity, Economic security, Enterprise management, Financial security, Superintendence.

1 Introduction

In the difficult conditions that have developed over the past day, the economies of the world's countries are going through a period of creating new conditions, new market principles of management, and improving the tools of economic management. Particular attention is paid to economic security – a specific system that provides protection and prevents various threats by assessing the likelihood of threats in business entities' activities, finding ways to manage these threats, assessing the risks of worsening the situation, minimizing and eliminating these threats [3].

At the same time, financial security is considered the most important component of economic security, and its provision should take place in direct connection with maintaining the economic security of an economic entity as a whole [16]. In this connection, it should be noted the relevance of the topic of the article.

The financial security of a manufacturing company is a state of finances that ensures the stability of the organization's functioning, financial balance, and regular profit, the ability to develop further and improve. The company's financial security is assessed by determining the level of financial stability of the organization in the formation of the structure of sources of financing of activities, management of financial transactions [1, 51]. Minimization of emerging financial threats positively characterizes the efficiency of a manufacturing company's financial security management and affects the efficiency of the company as a whole [7].

To substantiate and develop measures for the development of financial and economic security of companies based on the management of their business activity, the study solved the following tasks:

- The essence of the financial and economic security of the activities of industrial enterprises and the role in its provision of business activity management is revealed;
- The analysis of risk factors for the activities of industrial enterprises was carried out;

- The analysis of the business activity of industrial enterprises was carried out;
- Proposed organizational measures to improve the financial and economic security of companies on the basis of business activity superintendence.

2 Literature Review

The work of many scientists is devoted to studying the management of the financial and economic results of industrial enterprises' activities [8, 9, 10, 11, 17, 42]. Some authors have investigated the issues of the influence of many risks on the efficiency of enterprises [1, 12, 33].

However, the issues of organizational and methodological support of the process of increasing the financial and economic security of industrial enterprises have not been sufficiently studied. Many managers of enterprises and their divisions often find themselves unable to justify and develop ways to improve the safety of financial and economic activities of their own enterprises [13, 20].

Increasing the level of financial and economic security of a manufacturing enterprise is a continuous process. It covers many interrelated procedures that have appropriate requirements for their organizational support and economic justification [17]. One of the factors in the formation of an enterprise's financial and economic security is the level of its business activity [40].

The content of the concept of financial and economic security of enterprises in relation to various industries is presented in many scientists' works [22, 23, 25].

Summarizing the views of scientists on the definition of a manufacturing enterprise's financial and economic security, the study proposes the following interpretation. A production enterprise's financial and economic security is a specific financial and economic state, characterized by its ability and ability to withstand existing and emerging threats of its deterioration.

Most scientists define an enterprise's economic security in a broad aspect, including financial safety, intellectual, personnel, technical and technological, political and legal, information, environmental, and power security [24, 29, 31, 32, 38]. The main goal of managing the financial and economic security of an enterprise is to ensure its stable and efficient operation now and in the future [52].

The main functional goals of ensuring the financial and economic security of a production enterprise are:

- Ensuring high economic efficiency of work (profitability of all types of enterprises) [50];
- Ensuring high business activity and, accordingly, ensuring financial stability and independence of the enterprise [26].

3 Materials and Methods

The object of the research is manufacturing enterprises. The subject of the study is the process of managing the financial and economic security of manufacturing enterprises. The research methods were: monographic research method, general scientific methods such as comparison, generalization, synthesis, and mathematical and statistical methods [1, 9, 11, 20, 39, 40].

The research hypothesis is that the implementation and implementation of organizational measures to improve the financial and economic security of industrial enterprises based on business activity management will ensure their stable development.

4 Results

The authors of the article believe that an enterprise's financial security is a certain financial condition of an enterprise, characterized by its ability to withstand existing and emerging threats to its financial interests. Thus, the financial security of an enterprise reflects a certain level of its financial condition at a specific date, i.e., is static in nature, which narrows the scope of using this concept to manage financial security, in connection with which it seems appropriate to introduce a new concept into scientific circulation – "managed financial security" [9, 11]. The managed financial security of an enterprise is a set of certain indicators of a company's financial security (Table 1).

Table 1 – Indicators of financial security of the enterprise

No	Indicator name	Calculation procedure	Threshold value	Financial security condition
1 Indicators of solvency				
1.1	Absolute liquidity ratio	(Cash + short-term financial investments) / Short-term liabilities	0.2	The value of the indicator must be at least the threshold
1.2	Current liquidity ratio	(Total coverage ratio) Current assets / Short-term liabilities	> 1	The value of the indicator must be at least the threshold
1.3	Ratio of borrowing capacity	Equity / Long-term borrowed capital	1.4	The value of the indicator must be at least the threshold
2 Indicators of financial stability				
2.1	Coefficient of autonomy	Equity / Balance sheet	>= 0.5	The value of the indicator must be at least the threshold
2.2	Leverage of financial leverage	Debt capital / Equity capital	1	The value of the indicator should not exceed the threshold
2.3	Coefficient of provision with own funds	(Equity + Long-term liabilities - Non-current assets) / Current assets	0.1	The value of the indicator must be at least the threshold
2.4	The coefficient of maneuverability of own working capital	(Equity + Long-term liabilities - Non-current assets) / Equity	0.3	The value of the indicator must be at least the threshold
3 Indicators of business activity				
3.1	Working capital turnover ratio	Revenue / Average annual working capital	^ max	Value of the indicator ^ max
3.2	Equity capital turnover ratio	Revenue / Average annual value of equity capital	^ max	Value of the indicator ^ max
3.3	Ratio of turnover of borrowed capital	Revenue / Average annual value of borrowed capital	^ max	Value of the indicator ^ max
3.4	Accounts receivable turnover ratio	Revenue / Average annual accounts receivable	^ max	Value of the indicator ^ max
3.5	Accounts payable turnover ratio	Revenue / Average annual value of accounts payable	^ max	Value of the indicator ^ max
4 Indicators of profitability				
4.1	Return on assets	Net profit / Balance currency	^ max	Value of the indicator ^ max
4.2	Return on equity	Net profit / Average annual equity capital	^ max	Value of the indicator ^ max
4.3	Profitability of products	Net profit / Cost of products	^ max	Value of the indicator ^ max
4.4	Profitability of sales	Profit from sales / Revenue	^ max	Value of the indicator ^ max
5 Indicators of enterprise development				
5.1	Weighted average cost of capital	(Share of equity x Cost of equity) + (Share of borrowed capital x Cost of borrowed capital)	^ max	Value of the indicator ^ max
5.2	Investment level of	Gross investment / Depreciation	1	The value of the indicator

	depreciation	deductions		must be at least a threshold
5.3	Net profit growth rate	Net profit for the reporting period / Net profit for the previous period	> 1	The value of the indicator should be higher than the revenue growth rate
5.4	Revenue growth rate	Revenue for the reporting period / Revenue for the previous period	> 1	The value of the indicator should be higher than the asset growth rate
5.5	Growth rate of assets	Balance sheet currency at the end of the reporting period / Balance sheet currency at the beginning of the reporting period	> 1	The value of the indicator must be at least the threshold

Source: Economic security (theory and practice) [10], Khrapkina [12], Papekhin [21], Zaporozhtseva [41].

The need to introduce the concept of "managed financial security" into scientific circulation is since managed financial security of an enterprise is a special form of financial security, which reflects the potential to increase its level, subject to the use of monitoring, diagnostics, preventive and control measures [19, 49].

5 Discussion

An enterprise's level of economic security is influenced by many components: production efficiency, management efficiency, information security, etc. [15, 18, 27, 28, 35, 46, 48]. The latter's importance in the modern world has sharply increased in connection with the development of information technologies [2, 3, 4, 5, 6, 9, 14, 21].

An assessment of a manufacturing enterprise's economic security can be carried out according to indicators, the sources of information for the calculation of which are readily available [31, 34, 38]. These are indicators of production efficiency: profitability of production, labor productivity, staff turnover, overall economic profitability, economic growth rate, the ratio of labor productivity growth rates to wage growth rates, etc.

Maintaining an enterprise's economic security requires constant monitoring of the factors of its formation and risk factors of activity [36, 37]. The need for a prompt response of the management to the deterioration of the financial and economic situation of the enterprise is obvious, for the purpose of which the assessment of the level of economic security of the enterprise for a certain date and the analysis of its dynamics will be the rationale for the developed and adopted appropriate management decisions [22, 29, 30].

The level of business activity of enterprises directly affects their financial and economic situation. Deterioration of enterprises' business activity, or, in other words, a slowdown in the turnover of investments, also reduces the level of financial and economic security [43, 44, 45]. A similar slowdown in the turnover of funds invested in enterprises' current assets may be evidenced by the presence and growth of overdue receivables.

The main indicators of the business activity of industrial manufacturing enterprises are:

- General demand for products (order book);
- Release of the main product in kind;
- Stocks of finished products [1, 33].

The following are noted as the main factors limiting the business activity of organizations:

- Insufficient demand in the domestic market;
- High level of taxation;
- High percentage of commercial loans;
- Lack of financial resources;

- Lack of skilled workers;
- Deterioration and lack of equipment [20].

The market economy determines any commercial enterprise's desire to make a profit and increase its competitiveness and efficiency [42, 53]. It determines the importance of using in the process of enterprise management indicators of business activity, the analysis of which allows you to identify reserves and opportunities for more efficient use of capital and assets. The validity and value of the results of the analysis of business activity are determined by a wide list of indicators that fully characterize the effectiveness of the use of material and financial resources and the work of the procurement and sales organization. This allows us to touch upon all the enterprise's systemic processes, which determine its competitiveness and efficiency, which makes the assessment of business activity an integral tool in making current and strategic management decisions [10, 12, 26].

The business activity of an organization is very sensitive to constant changes in various conditions and factors. Macroeconomic factors have a basic impact on the business activity of economic entities. Under the influence of these factors, either a favorable "business climate" can be developed, which activates the conditions for an economic entity's active behavior, or vice versa - prerequisites for the reduction and termination of the business activity of the enterprise. An analysis of an enterprise's business activity allows one to assess the financial position of the enterprise and its production and economic prospects, which gives the management the necessary information to formulate directions of development and develop strategies and investment programs [12, 16, 54].

The analysis of business activity is carried out based on financial statements from two positions: from the standpoint of qualitative and quantitative indicators. Qualitative indicators are presented by the image of the company, the main competitors, and customers [39, 41]. When assessing the quantitative indicators of an economic entity's business activity, we are talking about the intensity of the use of mobile assets - current assets. In economic practice, the assessment of the efficiency of using working capital is carried out through the indicators of its turnover. Since the criterion for assessing the efficiency of working capital management is the time factor, indicators are used that reflect the total turnover time or the duration of one turnover in days; secondly, the rate of turnover. The operational and financial cycles are also distinguished among the main indicators of current assets management's efficiency [8, 17]. Many large companies use EBITDA, which characterizes the profitability of the company's core business and is determined to assess efficiency regardless of the level and quality of its accounts payable, tax regime, and method of calculating depreciation charges [25, 29].

6 Conclusion

The study developed a model for managing the business activity of a manufacturing enterprise, which will allow, through the performance of management functions for each particular type of activity, to obtain the necessary information about the state of business activity and its management results. Besides, the model assumes the formation of tools and a concept of business management. Simultaneously, the basis for improving a production enterprise's financial and economic security is the management of its business activity [17, 33].

The directions of ensuring and maintaining the business activity of a manufacturing enterprise are proposed, including increasing the volume of sales of profitable products in accordance with market demand; implementation of the economy regime at the enterprise in the direction of reducing all types of costs; improvement of the price mechanism, taking into account the improvement in the quality and competitiveness of products; pursuing a policy of reinvesting net profit in production, thus minimizing the use of long-term borrowed resources; maximization of the autonomy ratio, i.e., the share of equity

capital in the balance sheet; use, if necessary, of borrowed money to maintain and develop economic growth, without violating, at the same time, the financial stability of the enterprise; ensuring the acceleration of asset turnover by optimizing the ratio of fixed and circulating assets (with an increase in the share of the latter), which will reduce the relative need for them.

The implementation of the proposed measures will ensure the production enterprise's financial and economic stability both in the short term and in the long term.

Literature:

1. Akimova, L., Osadcha, O., & Akimov, O. (2018). Improving accounting management via benchmarking technology. *Financial and Credit Activity-Problems of Theory and Practice*, 1(24), 64-70. DOI: 10.18371/FCAPTP.V1I24.128340.
2. Akimova, L.M., Akimov, O.O., Mihus, I.P., Koval, Ya.S., & Dmitrenko, V.I. (2020). Improvement of the methodological approach to assessing the impact of public governance on ensuring the economic security of the state. *Collection of scientific papers Financial and Credit Activity-Problems of Theory and Practice*, 4(35), 180-190. DOI: <https://doi.org/10.18371/fcaptop.v4i35.221969>.
3. Akimova, L.M., Levytska, S.O., Pavlov, K.V., Kupchak, V.R., & Karpa, M.I. (2019). The role of accounting in providing sustainable development and national safety of Ukraine. *Financial and credit activity: problems of theory and practice*, 30(3), 64-70. DOI: 10.18371/fcaptop.v3i30.179501.
4. Akimova, L.M., Osadcha, O.O., Bashtannyk, V.V., Kondratska, N.M., & Fedyna, K.M. (2020). Formation of the system of financial-information support of environmentally-oriented management of the enterprise. *Financial and credit activity: problems of theory and practice*, 32(1), 434-443. DOI: 10.18371/FCAPTP.V1I32.200606.
5. Akimova, L.M., Reinska, V.B., Akimov, O.O., & Karpa, M.I. (2018). Tax preferences and their influence on the investment in Ukraine. *Financial and Credit Activity: Problems of Theory and Practice*, 3(26), 91-101. DOI: 10.18371/FCAPTP.V3I26.144117.
6. Akimova, L.M., Akimov, O.O., & Liakhovich, O.O. (2017). State regulation of foreign economic activity. *Scientific Bulletin of Polissia*, 4(12), Part 1, 98-103. DOI: 10.25140/2410-9576-2017-1-4(12)-98-103.
7. Akimova, N. & Akimova, A.I. (2018). Text Understanding as a Special Kind of Understanding. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*, 24(1), 27-46. DOI: <https://doi.org/10.31470/2309-1797-2018-24-1-27-46>.
8. Andros, S., Akimova, L., & Butkevich, O. (2020). Innovations in management of banks deposit portfolio: structure of customer deposit. *Marketing and Management of Innovations*, 2, 206-220. DOI: 10.21272/mmi.2020.2-15.
9. Bril, M.S. (2015). Methodology of Strategic Alternatives for Managing the Economic Security of a Commercial Bank. *Business Inform*, 2, 196-203.
10. Business Expectations of Ukrainian Enterprises. (2019). Dated on March, 2019. Available at: <https://bank.gov.ua/doccenter/document?id=92021349>.
11. Cherevko, O.V. (2014). Strategic management of financial and economic security of the enterprise. *Effective economy*, 2.
12. Dotsenko, I.O. & Melnychuk, O.P. (2018). Strategic management of financial and economic security of the enterprise. *State and regions. Series: Economics and Business*, 3, 79-84.
13. Economic security (theory and practice). (1999). Textbook under E.A. Oleinikov eds. M.: Classic Plus, 356.
14. Furman, V.M. & Zachosova, N.V. (2015). Features of the management of economic security of modern insurance companies as one of the types of financial institutions. *Journal Agrosvit*, 15, 20-26.
15. Harafonova, O., Zhosan, G., & Akimova, L. (2017). The substantiation of the strategy of social responsibility of the enterprise with the aim of providing efficiency of its activities.

- Marketing and Management of Innovations*, 3, 267-279. DOI: 10.21272/MMI.2017.3-25.
16. Hreben, S., Mihus, I., Parashchenko, L., Laptiev, S., & Alkema, V. (2019). The mechanism of financial control over the allocation of budgetary funds depending on the results of scientific activity of a higher education institution. *Financial and credit activity: problems of theory and practice*, 4(31), 446-476. DOI: <https://doi.org/10.18371/fcaptop.v4i31.190998>.
17. Kalyayev, A., Efimov, G., Motornyy, V., Dzianyy, R. & Akimova, L. (2019). Global Security Governance: Conceptual Approaches and Practical Imperatives, *Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: Education Excellence and Innovation Management through Vision 2020, 10-11 April, 2019, Spain, Granada, 4484-4495*.
18. Khrapkina, V. (2011). Analysis of approaches and methods for determining the financial security of an enterprise. *Economic analysis*, 8, part 2.
19. Korystin, O., Mihus, I., Svyrydiuk, N., Likhovitsky, Y., & Mitina, O. (2020). Money laundering: macroeconomic assessment methods and current trend in Ukraine. *Financial and credit activity: problems of theory and practice*, 1 (32), 341-350. DOI: <http://dx.doi.org/10.18371/fcaptop.v1i32.200865>.
20. Kostiukevych, R., Mishchuk, H., Zhidebekyzy, A., Nakonieczny, J., & Akimov, O. (2020). The impact of European integration processes on the investment potential and institutional maturity of rural communities. *Economics and Sociology*, 13(3), 46-63. doi:10.14254/2071-789X.2020/13-3/3.
21. Kyrchenko, O. (2016). Theoretical Foundations of Strategic Management of the System of Economic Security of the Enterprise. *Scientific Bulletin of Odessa National Economic University*, 1, 70-83.
22. Levytska, S., Krynychay, I., Akimova, A., & Kuzmin, O. (2018). Analysis of business entities' financial and operational performance under sustainable development. *Financial and credit activity: problems of theory and practice*, 25(2), 122-127. DOI: 10.18371/FCAPTP.V2I25.136476.
23. Levytska, S.O., Akimova, L.M., Zaiachkivska, O.V., Karpa, M.I., & Gupta, S.K. (2020). Modern analytical instruments for controlling the enterprise financial performance. *Financial and Credit Activity: Problems of Theory and Practice*, 2(33), 314-323. DOI: 10.18371/Fcaptop.V2i33.206967.
24. Levytsky, V.V. & Sukhanova, I.Yu. (2014). Innovative development as an element of strategic provision of the system of financial and economic security management of the enterprise. *Scientific Bulletin of Bukovinsky State Financial-Economic University. Economic Sciences*, 26, 89-94.
25. Liubkina, O., Murovana, T., Magomedova, A., Siskos, E., & Akimova, L.M. (2019). Financial instruments of stimulating innovative activities of enterprises and its improvements. *Marketing and Management of Innovations*, 4, 336-352. DOI: 10.21272/MMI.2019.4-26.
26. Makarchuk, O.V. & Pechora, Yu.Yu. (2014). Strategic management of enterprise economic safety: theoretical aspects. *Scientific notes of Ukrainian Academy of Printing*, 4, 135-139.
27. Materials of the official site of the State Statistics Service of Ukraine. (2019). Dated on March 3, 2019. Available at: <http://www.ukrstat.gov.ua>.
28. Mihus, I., Andrienko, V., Molodets'ky, S., & Blikhar, M. (2018). The process of forecasting bankruptcy and raiding as a tool of public monitoring financial security state of Ukraine. *Financial and credit activity: problems of theory and practice*, 1(24), 267-274. DOI: <https://doi.org/10.18371/fcaptop.v1i24.128545>.
29. Mihus, I.P., Haman, P.I., Andriyenko, M.V., & Koval, Y.S. (2019) The state of economic security of Ukrainian banking institutions and the effect of economic reforms on formation of anti-crisis measures. *Financial and credit activity: problems of theory and practice*, 2(29), 32-43. DOI: <https://doi.org/10.18371/fcaptop.v2i29.171997>.
30. Mishchuk, H., Bilan, S., Yurchyk, H., Akimova, L., & Navickas, M. (2020). Impact of the shadow economy on social safety: The experience of Ukraine. *Economics and Sociology*, 13(2), 289-303. doi:10.14254/2071-789X.2020/13-2/19.
31. Novak-Kalyayeva, L., Rachynskiy, A., Bienkowska, D., Karpa, M., Makovey, J. (2018) Practical potential of theory and methodology of public administration on AHE basis of human rights. *Proceedings of the 32nd International Business Information Management Association Conference, IBIMA 2018 - Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth*, 2018, 2032-2039.
32. Osadcha, O.O., Akimova, A.O., Hbur, Z.V., & Krylova, I.I. (2018). Implementation of accounting processes as an alternative method for organizing accounting. *Financial and credit activity: problems of theory and practice*, 27(4), 193-200. DOI: 10.18371/fcaptop.v4i27.154194.
33. Papekhin, R.S. (2010). *Factors of financial stability and security of the enterprise*. Dissertation of PhD in Economics. Volgograd: Sciences, 21.
34. Shabinskyy, O.V. (2014). Problems of development of the strategy of economic security management of agricultural sector enterprises. *Bulletin of Kharkiv National Agrarian University named after V.V. Dokuchaev: Economics*, 5, 201-206.
35. Shamne, A., Dotsevych, N., & Akimova, A.I. (2019). Psychosemantic Peculiarities of Promotional Videos Perception. Psycholinguistic Projection. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*, 25(1), 384-408. DOI: 10.31470/2309-1797-2019-25-1-384-408.
36. Shemayeva, L., Mihus, I., Shemayev, V., Shemayev, V., & Melnyk, L. (2020). Application of the model of cross-optimization of financial and material flows in the mechanism of provision of financial security. *Financial and credit activity: problems of theory and practice*, 2(33), 400-410. DOI: <http://dx.doi.org/10.18371/fcaptop.v2i33.207078>.
37. Shytyk, Liudmyla., & Akimova, Alina. (2020) Ways of Transferring the Internal Speech of Characters: Psycholinguistic Projection. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*, 27 (2), 361-384. DOI: <https://doi.org/10.31470/2309-1797-2020-27-2-361-384>.
38. Skliarenko, Olesia., Akimova, Alina., & Svyrydenko, Oksana. (2019) Psycholinguistic Peculiarities of Contextual Realisation of Concept «MACHT» in Linguistic and Cultural Space of German's. *Psycholinguistics. Pereiaslav-Khmelnytskyi Hryhorii Skovoroda State Pedagogical University*. 26 (2). 321-340.
39. Stolyarenko, O.O. (2012). The analysis of stages of the process of strategic management of economic safety of the enterprise. *Scientific Bulletin of NLTU of Ukraine*, 22(8), 320-325.
40. Sudakova, O.I., Popova, V.V., & Orlova, M.K. (2014). Improvement of strategic management of economic safety of the enterprise. *Economical space*, 88, 239-246.
41. Survey on Systemic Risks of the Financial Sector. (2019). Dated on March, 2019. Available at: <https://bank.gov.ua/doc/catalog/document?id=95852313>.
42. Tulub, O.M. & Teslyuk, O.M. (2016). Management of the system of financial and economic safety of the manufacturing firm. *Investments: practice and experience*, 16, 29-32.
43. Ustenko, S.V. & Ivanchenko, N.O. (2014). Development of an imperative strategy for managing the economic security of an enterprise. *Scientific Bulletin of Kherson State University. Economics*, 8(1), 213-217.
44. Yakymchuk, A.Y., Valyukh, A.M., & Akimova, L.M. (2017). Regional innovation economy: aspects of economic development. *Scientific bulletin of Polissia*. 3(11), 170-178. DOI: 10.25140/2410-9576-2017-1-3(11)-170-178.
45. Yakymchuk, A.Y., Akimova, L.M., & Simchuk, T.O. (2017). Applied project approach in the national economy: practical aspects. *Scientific Bulletin of Polissia*, 2(10), 170-177. DOI: 10.25140/2410-9576-2017-2-2(10)-170-177.
46. Yakymchuk, A.Y., Akimov, O.O., & Semenova, Y.M. (2017). Investigating key trends of water resources attraction into economic turnover. *Scientific Bulletin of Polissia*, 1(9), 70-75. DOI: 10.25140/2410-9576-2017-2-1(9), 70-75.
47. Zachosova, N.V. (2016). Definition of strategic guidelines for strengthening the economic security of financial institutions as a necessary stage in the formation of the economic security strategy of Ukraine. *Business Inform*, 1, 272-276.
48. Zachosova, N.V. (2018) Theoretical and methodological principles of management of economic security in the process of management of modern financial institutions. *Bulletin of the Odessa National University. Series: Economics*, 2, 11-20.

49. Zachosova, N.V. (2019) Modeling of the mechanism for managing the provision of financial and economic security for professional participants in the financial market, taking into account the state influence on this process. *Scientific notes of the National University "Ostroh Academy", Series: Economics*, 12 (40), 101-105. DOI: 10.25264/2311-5149-2019-12(40)-101-105.
50. Zahorskyi, V.S., Lipentsev, A.V., Mazii, N.H., Bashtannyk, V.V., & Akimov, O.O. (2020). Strategic directions of state assistance to enterprises development in Ukraine: managerial and financial aspects. *Financial and Credit Activity: Problems of Theory and Practice*, 2(33), 452-462. DOI: <https://doi.org/10.18371/fcaptp.v2i33.207230>.
51. Zahorskyi, V.S., Lipentsev, A.V., Yurystovska, N.Ya., Mazii, N.H., & Akimov, O.O. (2019). Financial and administrative aspects of small business development in Ukraine. *Financial and Credit Activity-Problems of Theory and Practice*, 3(30), 351-360. DOI: <https://doi.org/10.18371/fcaptp.v3i30.179717>.
52. Zanora, V. O. & Silchenko, B. I. (2017). Management of the enterprise's economic security system based on the project approach. *Economic Bulletin of the Zaporizhzhya State Engineering Academy*, 5(1), 130-133.
53. Zanora, V.O. & Sklyar, A.V. (2016). Management of economic safety of subjects of management: theoretical and methodical aspects of organization of the system. *Scientific Bulletin of the International Humanitarian University. Series: Economics and Management*, 22, 74-77.
54. Zaporozhtseva, L.A. (2011). Financial security of the enterprise during the transition to IFRS. *International accounting*, 36.

Primary Paper Section: A

Secondary Paper Section: AH

METHODOLOGICAL APPROACHES TO THE STUDY OF INNOVATIVE FORMS OF EDUCATION

^aNADIA LUTSAN, ^bANNA STRUK, ^cSVITLANA BARYLO,
^dGALYNA BORYN, ^eSVITLANA VERBESHCHUK

^{a-e}Vasyl Stefanyk Precarpathian National University, 57,
Shevchenko Str., 76018, Ivano-Frankivsk, Ukraine
email: ^alutsan.nadia@gmail.com, ^bannastruk2311@gmail.com,
^csvitlana_bb@ukr.net, ^dhalyna.boryn@pnu.if.ua,
^esvitlanka_13V@ukr.net

Abstract: Transformations in modern society's life, affirming the people's attitude as the highest value of social life, have become conditions for identifying and developing his creative potential and his functioning as a person and a citizen. This situation has actualized the problem of humanization, expanding the issues of the innovation space. All this could not but affect the pedagogical and theoretical views, including methodological knowledge. Recently, innovative processes have entered the field of education and raised the need to update research in methodological tools, defining the intensive development of methodological approaches. The work proves the ambiguity of methodological approaches to the study of innovative forms of education. Their characteristics and grouping are given. Based on this, the author's approach to analyzing innovative forms of education is presented.

Keywords: Education development, Innovative forms of education, Innovative space, Methodological approaches, Pedagogy.

1 Introduction

The need to study the methodology of innovative forms of education is due, firstly, to our society's need to bring education in line with the development of the nature of the economy [1]. Secondly, the analysis of scientific literature on this issue showed no common view on it. A generalization and classification of approaches to its study are required to develop evidence-based recommendations in the field of innovative forms of education [3].

In the twentieth century, there have been many different changes in the methodology of cognition. The realization came that the subject structure of knowledge does not allow developing a unified approach to solving complex problems related to systems of the highest level of organization [2].

In education as a whole, a paradoxical situation is developing when a general crisis is combined with new shoots, an awareness of a paradigmatic lag with an abundance of new ideas and concepts, anxiety for the level and quality of education with a sense of the new coming, thereby actualizing the philosophical understanding of the present and future education [10]. The possibilities of any modern civilizations based on the desire to rule over nature have been exhausted. They have brought humanity to the brink of catastrophe. It means that a new ecological crisis on a planetary scale is inevitable and that humanity is facing an inevitable civilizational restructuring of all the usual beginnings. And the existing element of development should be opposed by some reasonable strategy common to humanity [5].

At the present stage, the most intensive study is the methodological issues of pedagogical education, pedagogical research, and other scientific fields. The term "methodology" itself is defined differently in scientific research. The concept of "methodology" (from the Greek *"methodos"* – research, tracking) means a set of methods, techniques, and operations of practical or theoretical mastering of reality, that is, the path of cognition. Tracing the content of the concept of "methodology," you can identify different interpretations of this term and its derivatives. Recently, questions of methodology in pedagogical research have undergone significant changes, and the same is happening in other sciences and scientific fields [4].

2 Literature Review

Analysis of scientific sources allows us to identify the following groups of approaches to studying innovations in education. The first group of approaches connects innovation with scientific ideas and forms of their implementation in education. Several

authors focus on the fact that a search, research nature distinguishes innovative activity [6, 8]. Search activity involves the formation of students' experience of independent search for new knowledge, their use in new conditions; that is, it activates students' activity to build their knowledge. In turn, the driving factor of the innovation process, according to these authors, is a research activity. The latter is a kind of search activity. It is characterized by the activation of the students' comprehension of knowledge in the course of the stage-by-stage formulation of the problem, the advancement, and testing of hypotheses, the formulation of ideas, the conduct of an experiment, etc. [12]. Consequently, innovative activity in education within the "search" framework is characterized as research, accompanied by qualitative changes, development, transformation, and obtaining new subjective experience at the end. Such an "innovation-research" activity is new knowledge, new ways of its transmission and assimilation; subjects – teachers and students [28].

Consideration of innovations in education from the standpoint of pedagogical innovations can be considered similar to the "search" approach [24]. Expanding the concept of "pedagogical innovation", the authors define it as such a content of possible changes in pedagogical activity, which leads to a previously unknown, not encountered result. Accordingly, when introducing pedagogical innovations, the theory and practice of innovative teaching and upbringing develop [11]. At the same time, pedagogical innovations can relate to both pedagogical activity as a whole and its individual components.

In the French-language literature, two types of education innovations are characterized as spontaneous ones (innovation occurs regardless of official initiatives and is carried out by the teachers themselves) and controlled innovations (innovative activity is carried out under the supervision and management of scientists) [9]. In turn, controlled innovations in education are subdivided into classical (first, a new one is developed and studied based on several educational institutions, then it is refined and distributed en masse) and autonomous, when the initiative comes from below, from teachers, and the governing bodies carry out only coordination functions experiment in a large number of schools or universities [7].

3 Materials and Methods

The first – "technological" – group of approaches to the study of educational innovations focuses on its authors' attention on the search and research nature of teachers and students' activities [19, 22]. However, this overlooks the new forms of activity of the subjects of the pedagogical process in the university (teachers and students), the formation of which is considered within the framework of the second group of approaches [13].

The second group of approaches is based on the study of innovative activities from the standpoint of comparing innovative and traditional approaches in education [23, 34]. The traditional approach is characterized by a "knowledge" paradigm of education, an orientation towards the formation of a stable body of knowledge, skills, and abilities, strict regulation of the educational process, and the reproductive nature of education. Accordingly, the subject of the teacher and students' joint activities within the framework of the traditional approach is the educational material, knowledge, skills, and abilities of the trainees, which are mastered mainly through verbal explanations and reproduction [20]. On the contrary, an innovative (as opposed to the traditional) approach means implementing the scientific foundations for the inclusion of personality development mechanisms, the acquisition of knowledge by the subject himself instead of passive perception [18]. Innovative teaching means methods that stimulate the teacher and students' productive, creative activity related to the production of a socially useful product at all stages of the educational process [25].

The third group of approaches to the study of innovations in education focuses on the personality of students [21, 24]. The interaction of philosophical methodology, social, cultural, and psychological-pedagogical components of innovative educational activities can contribute to the formation of the student's personality. Therefore, such a person-centered approach is based on the following provisions:

- The need to take into account, during the implementation of educational innovations, the age and psychological characteristics of students, their mental strengths and cognitive capabilities, the pace of development of their consciousness and self-awareness as individuals with a certain creative potential [26];
- The orientation of education to the current and future needs of society in personnel, for which it is necessary to train specialists adapted to real life, in particular, to the conditions of the emergence of a market economy;
- Increasing the intellectualization of students, their awareness, developing their own spiritual experience;
- Implementation of a holistic approach to teaching, which allows students to be included in broad social ties, using the university's capabilities as an open system, in which, with the help of teachers, the didactic principle of connecting learning with life is implemented.

The fourth group of approaches – "practice-oriented" – should be considered that innovative pedagogical processes that allow effectively solving the assigned tasks are due to progressive trends in society's development [32]. An innovative approach to training a specialist in higher education is determined by the idea of a scientifically controlled process. Such an innovative process is associated with democratization, humanization, and differentiation of higher education. It is organized based on theoretical modeling of educational and professional programs' content and structure aimed at achieving a high level of readiness of a university graduate for their professional activities [37, 40]. In this regard, there is currently a surge of so-called "innovative practices" in educational institutions. It is due to the following objective prerequisites:

- Awareness of the need for radical changes at all levels of the educational system (regional, municipal, separate educational institution);
- Updating new characteristics of education, such as variability, multilevel, training specialists within the educational order of business structures, the development of the educational services market and increased competition in it;
- The growth of requirements for the level of higher education on the part of employers and the students themselves, along with the inertia of educational programs in determining the value quality priorities of the development of higher education;
- The simultaneous implementation of several reforms – political, economic, social, and education – is not a priority. Against this background, some authors rightly note the rather "free" normative base of education that regulates innovative activity, as a result of which "true" innovations are lost in a large number of their imitations.

In the fifth group of approaches, the authors included studies devoted to developing meaningful criteria for the classification of innovations in education [41]. It is expedient to divide these studies into two directions. The first area includes the classification of innovations, in which the object of analysis and order is the management of innovation. The second area includes those classifications that consider innovative approaches to learning.

The sixth group of approaches to the study of innovations in education includes developing methods for analyzing foreign experience in this area [43]. One of the ailments of domestic pedagogy is the separation from world experience, both in the scientific and applied spheres. As a result, according to this author, the innovative didactic findings of world pedagogy

remain little known even for specialists, and teachers, experiencing a huge need for fresh ideas, have the opportunity to get acquainted only with fragments of foreign innovative educational technologies [26].

4 Results

Innovative teaching is designed to remove the fundamental shortcomings of the traditional: first, underestimation of the leading role of subjects of learning, second, the lack of targeted management of the achievement of the predicted result, and third, the lack of continuity of learning [17].

These shortcomings of traditional education lead to its failure to fulfill its primary function – the development of trainees' abilities, which allow them to navigate in changing life and work situations freely [22]. Therefore, one cannot ignore the fact that the existing educational system aggravates social contradictions. In particular, professional incompetence, low legal culture, inability to conduct political dialogue, social irresponsibility, economic and environmental illiteracy, ignorance of the experience of domestic and world history and culture make it difficult for many members of society to choose a life position [25]. Within the framework of the "comparative" group of approaches, the lagging behind the new realities of life, the devaluation of its social significance, and, ultimately, the exhaustion of the traditional educational system's capabilities were investigated. Therefore, it will be appropriate to give an opinion that it is necessary to refer to the main innovations in the field of education as changes in the following areas: in the financing and management of education, in the context of education (in curricula and programs in all or individual subjects), in the organization of teaching, in relationships teachers with trainees, in educational technologies [30].

In this regard, it should be noted that, within the framework of the second group of approaches, the implementation of innovative learning does not mean a refusal to acquire solid knowledge [36]. However, this emphasizes the problem of the development of the personality of trainees, which is emphasized from the content of the third group of approaches [31].

Following the methodology of the personality-oriented approach to the disclosure of innovations, it is noted that one of the important characteristics of innovative activity in education is the reflexive position of its subjects. Reflection as a way of rethinking by the subjects of the educational process of their own thinking and activity includes the stages of self-awareness, self-determination, self-expression, self-realization, and self-regulation. Accordingly, it contributes to the awareness of the need to make changes in the previous nature of activities and encourages the search for new ways of it, thus being realized in innovations [39].

Thus, the inclusion of reflection in the content of training contributes to the stimulation of critical comprehension of students' activities, an active search for a solution to the problem posed. Consequently, the fundamental aspect of understanding innovations in education through students' reflection is that innovation in the educational process is accompanied by reflection, and reflection is accompanied by innovation. However, without diminishing the importance of highlighting the personal aspect of educational innovations, one cannot fail to note researchers' weak attention within the third group of approaches to an environment favorable for the development of the innovative activity [29]. An attempt to solve the problem of defining an innovatively favorable educational environment was made within the framework of the fourth group of approaches to the study of the content of innovations in education.

Based on the fourth group of approaches, innovation is seen as a complex process of creating, disseminating, and using new practical experience. In this regard, one cannot ignore the opinion that educational innovations are substantively manifested in various activity aspects of improving the education system [27, 29]. These aspects include:

- Development of concepts for the development and self-development of an educational institution;
- Updating the content of education [15];
- Change or development of new methods, techniques, pedagogical technology of teaching, upbringing, personal and collective development [14];
- Improvement of organizational forms of education, upbringing, personal and collective development [16];
- Changing the management and self-government of an educational institution, etc.

However, it should be borne in mind the position that "adjusting" a significant part of practical activity in education for innovation levels the meaning of the latter, reducing it to zero. A number of authors typologize educational innovations link this process with meaningful features.

The following can be said regarding the first direction. In the pedagogical literature, some authors use their examination and implementation path as a criterion for classifying innovations. In this regard, they distinguish three types of innovations in education: political-administrative, normative-reductive, and empirical-rational [12].

5 Discussion

From the point of view of management, the controlled and autonomous (initiated) types of innovations are divided into four subtypes: scientific (scientific organizations perform control functions), scientific and administrative (they carry out control with the support of educational authorities), administrative and scientific (control and management are carried out by bodies management, based on science), administrative (the authorities assume control functions) [31].

Depending on the existing constraints, such types of innovations in education are investigated as deterministic, based on certain norms and rules, and natural, when innovation develops naturally [38].

Within the framework of the second classification approach to educational innovations, there are two types of them:

- Innovations – modernization, transforming the educational process, aimed at achieving guaranteed results within its traditional reproductive orientation framework [33]. The underlying technological approach to learning is aimed, first of all, at communicating knowledge to learners and forming methods of action according to the model, that is, at reproductive learning;
- Innovations – transformations that transform the traditional educational process, ensure its research nature, the organization of search educational and cognitive activities [39].

Also, innovations are associated with a new educational product (new educational services, new specialties), with new levels of education, and in this regard highlights the following criteria for their classification:

- Temporary – the criterion for the innovativeness of educational services is the time of their development and implementation [21];
- Differentiation of educational services from their analogs and prototypes;
- A multi-purpose focus, characterizing various aspects of the novelty of educational services and products (for example, multi-level distance training of specialists with higher education, masters and graduate students, etc.) [19].

Since there are no limits to learning, there can be many types of mastering knowledge [24]. On this basis, he distinguishes between normative learning, the acquisition of knowledge based on the so-called "Shock" experience under the influence of crisis situations, fundamental and innovative training [24]. The latter's main difference is the focus on the development of the trainees' ability to act jointly in new, possibly unprecedented situations.

Thus, in the study of innovations in education, the emphasis is placed on the anticipation of problems in learning and the mandatory active participation of all educational process subjects in this.

When analyzing pedagogical innovations, one can base not only on the novelty of the educational ideas and technologies themselves but also on the novelty of the conditions in which they are implemented [40]. In this regard, there are three substantive aspects of the analysis of educational innovations:

- Research of innovations in education involves the identification of the absolute novelty of educational ideas.
- It is necessary to study adapted, expanded, and redesigned pedagogical ideas and actions, which become relevant in a particular environment and a specific period.
- It is necessary to consider pedagogical innovations in a new situation, in changed conditions, when they guarantee positive ideas.

Analysis of methodological approaches to the study of innovative forms of education allows us to highlight the following provisions:

- In scientific research, as the main qualitative characteristics of the innovative educational process, most authors emphasize activity, search, creativity. Most authors agree that innovative activities in the educational sphere affect the nature of the interaction between the teacher and the students. This character is distinguished by a democratic teaching style, encouraging a proactive position, an orientation toward joint, partner assistance, and various forms of intergroup interaction [25].
- On this basis, most authors see pedagogical innovations (new forms and methods of teaching), which are associated with new pedagogical technologies as the main form of implementing innovative activities in education. However, this emphasizes the importance of transforming the organizational aspect of higher education, introducing new forms of management of educational activities of universities, and the integration of university science and education [27].
- In the course of the development of innovative activity in education, the nature of the educational process's management inevitably changes. In particular, the simple assimilation of knowledge, routine memorization develops into searching mental activity, where research and discussion forms are brought to the fore [35]. In this process, the character of the trainees' motivational and semantic knowledge is enhanced; the sphere of manifestation of the individual's creativity expands.

As understood by many authors, educational innovations are closely interconnected with changes in the mechanisms for assessing the knowledge, skills, and abilities of students. It is manifested in the departure from the overwhelming role of assessment, fixed mainly by the method of conformity to a given pattern, in the development of self-control [4, 41].

In the approaches discussed above, there is no consensus regarding the semantic content of innovations in education, their internal conditioning [11, 42]. Some authors borrow the concept of innovation, especially without going into its conceptual meaning and the essence of the social mechanism of their action in education [34]. Simultaneously, innovations are interpreted as an analog of the concepts of "innovation" and "innovation," which automatically transfers them to the educational sphere's phenomena – mainly in that part of it that describes the pedagogical process itself.

On the contrary, other authors try to initially determine in relation to the meaning of the used concept of innovation and analyze its place and role in the transformation of the educational process as a means of changing it [27]. Another group of authors, faced with the theoretical limitations of the possibilities of the first two approaches, are looking for ways to

conceptualize innovation in the educational sphere as a self-development way. It forces them to penetrate more deeply into the essence of the very phenomenon of innovation in education. However, this part of the research is quite small and, at the same time, allows you to optimally combine the possibilities of innovation as a special sphere of theoretical knowledge with the specifics of the organization of the education sector in general and the educational process in particular [29, 39]. It would be correct to talk about educational and pedagogical innovations, but about innovations in pedagogy, pedagogical technologies, education, and training.

6 Conclusion

The proposed approach to innovation in higher education is based on their main characteristic – a higher level of organization of the educational process, new consumer qualities of the object of educational innovation in comparison with the previous analog. Therefore, in relation to higher education, where innovative educational forms are any university changes [40], leading to improvements in the educational, organizational, financial, scientific, and other areas of its activities, systemically interconnected and interdependent [1].

As the main goal of innovation in higher education, we see such changes in the educational system that lead to improvements in certain characteristics or to the removal of an unsolved educational problem. In addition to achieving the main goal, educational innovations are designed to solve problems:

- To improve the efficiency of higher education institutions;
- To bring the results of the educational activities of the university under the educational needs;
- To improve the quality of educational services and increase their availability;
- To develop the trainee's personality and adapt knowledge, skills, and abilities to the new realities of life.

The goals and objectives we have identified for innovation in higher education allow us to determine the number of functions of innovation that they perform in the university and society's development as a whole. These functions include the following:

- Increasing the scientific character of educational activities, taking into account the growing intellectualization and informatization of society;
- Expanding the range and improving the quality of educational services and products;
- Accelerating the satisfaction of the educational needs of individuals and society as a whole;
- Activation of the use of new teaching technologies, development of new educational services with less labor, financial resources, time;
- Bringing the structure of the reproduction of highly qualified personnel into conformity with the structure of changing needs in the labor market.

The end result of the implementation of innovations in higher education is qualitative changes in the results of the activities of the subjects of the educational process (for example, the development of creative, communicative abilities of students, the elimination of gaps between the requirements of the labor market and the knowledge, skills, and abilities transmitted during university training, etc.)

The above gives grounds to single out the elements of innovation in higher education as a process objectively conditioned by profound changes in its course's socio-economic environment. We include the following among such elements:

- Forecasting innovative activities in higher education, which includes the activities of the subjects of the educational process (teachers) are to select effective educational innovations, determine the potential demand for innovative educational services, form their market,

design the organizational structure of a higher educational institution [37];

- Innovative design as the selection of the most promising innovative objects in higher education, preparation of an investment proposal, development of business plans;
- Innovative investment in higher education. It implies the definition of goals and sources of investment in educational innovations;
- Innovation management in higher education, an important element of which we see the stimulation of innovation in universities [41];
- Pedagogical technologies – the formation of an educational and methodological complex containing pedagogical innovations;
- Development of new teaching technologies, including computer technologies, the introduction of world quality standards in education [42];
- Monitoring and analysis of the pedagogical results of the implementation of educational innovations, etc.

There are two directions for developing the management of innovative activity in the higher education system should be distinguished. The first direction is the activation of state regulation of innovative activity at the regional, municipal, and interstate levels. The second direction is to manage the university's development and implementation of innovative projects and programs.

Literature:

1. Andrushchenko, V.P. (2000). Priorities of the education development of XXI century. *Current philosophical and culturological problems of the present*, 3–11. Znannya Ukrainy, Kyiv.
2. Arydin, V.M. & Atanov, G.A. (2000). *Educational activity of students: Reference book*. Donetsk, 270.
3. Ashley, M. (2005). *Can one teacher know enough to teach Year Six everything? Lessons from Steiner-Waldorf Pedagogy*. A paper presented at the British Educational Research Association Annual Conference, University of Glamorgan, 14th – 17th September.
4. Babina, N.O. (2018). *Organization of innovative activity of higher educational establishments*. Available at: www.stationline.org.ua.
5. Blotz, U. (2001). *Basics of a simulation game - didactics. Simulation games in vocational training. Conception and application of simulation games*. Bielefeld.
6. Chamberlain, T.C. (1965) The method of multiple working hypotheses. *Science*, 148, 754-759.
7. Conference presentation at Creative Development of Personality. (2009). *The Key to Success of an Individual in the Context of Internationalization of Education*, Kharkiv, May 21, 2009. Kharkiv: Kharkiv Humanitarian-Pedagogical Institute, 171–175.
8. Coyne, R. (1988). *Logic Models of Design*. London: Pitman
9. Dychkivska, I.M. (2004). *Innovative pedagogical technologies: textbook*. Academ. Pub.
10. Evans, T.D. & Nation, D. (2000). *Changing University Teaching: Reflections on Creating Educational Technologies*. London: Kogan Page.
11. Faludi, A. (1986). *Critical Rationalism and Planning Methodology*. Pion.
12. Gunn, E. (2014). Using clickers to collect formative feedback on teaching: a tool for faculty development. *International Journal for the Scholarship of Teaching and Learning*, 8(1), art.11.
13. Heyets, V.M., Semynozhenko, V.P., & Kvasnyuk, B.Ye. (2001). *Strategic challenges of the 21st century for the society and economy of Ukraine*. Feniks, Kyiv, 2007.
14. Imashev, G., Kuanbaeva, B., Rakhmetova, M., Salykbayeva, Zh., Turkmenbayev, A., Issatayeva, Zh., Murynov, B., & Gainieva, A. (2019). Development of modern polytechnic education at physics classes. *Ad Alta-Journal of Interdisciplinary Research*, 25-30.
15. Imashev, G., Kuanbayeva, B.U., Barsay, B.T., Uteshkaliyeva, A.M., Rakhmetova, M.T., Tumysheva, A.A.,

- Kassymova, A.A., & Turkmenbayev, A.B. (2019). Innovative approaches in polytechnic education. *Revista Dilemas Contemporáneos: Educación, Política y Valores*, 6, Edición Especial, Artículo No 5, August, 2019.
16. Imashev, G., Kuanbayeva, B.U., Yelezhanova, S.K., Myrzasheva, A.N., Medeshova, A.B., Kochshanova, G., Zharylgapova, D.M., & Sultangaliyeva, L.S. (2020). Innovative approaches to the development of environmental education in high school. *Ad Alta-Journal of Interdisciplinary Research*, 22-26.
17. Izotova, L.I. (2001). Socio-psychological training as a means of teaching students. *Postmethodology*, 5-6, 85-88.
18. Khairnar, C.M. (2015). Advance Pedagogy: Innovative Methods of Teaching and Learning. *International Journal of Information and Education Technology*, 5(11), 869-872.
19. Khmelevska, L.P., Kuzmina, S.A., & Muzychenko, O.A. (2012). Creation of the concept of innovational education as the basis for further economic development of the state. *Visnyk KNUVD*, 4(66), 102-107.
20. Khutorskoy, A.V. (2002). *Key competences as a component of personal-oriented paradigm of education. Student in secondary school*. M.: IOSO RAO, 135-157.
21. King, S.B. (2014). Graduate student perceptions of the use of online course tools to support engagement. *International Journal for the Scholarship of Teaching and Learning*, 8(1), 130-132.
22. Koch, J. & Selka, R. (1991). *Leading texts – a way to learn independently*. Participant documents. Federal Institute for Vocational Training. The Secretary General. Berlin Edition.
23. Levinson, P. (1982). *What technology can teach philosophy: ruminations along Kantian/Popperian lines?* In Pursuit of the Truth: Essays on the Philosophy of Karl Popper (Ed.). Atlantic Highlands, NJ: Humanities, 157-175.
24. Lutsan, N., Mykhaylyshyn, G., & Kondur, O. (2015). Modern educational technologies in Ukrainian high school. *Edukacja-Technika-Informatyka: Kwartalnik naukowy*, 4(14), 74-79.
25. Malafii, I.V. (2006). *Didactics: Textbook*. K.: Condor, 398.
26. Medawar, P. (1991). *The Threat and the Glory: Reflections on Science and Scientists*. Oxford University Press.
27. Mohsen, F. (2002). *Internet-based teaching. Learning Methods for Higher Economics Education. Conception and prototypical implementation using the example of a business game*. Dissertation to obtain the economics doctorate of the economics faculty of the University of Gottingen, Gottingen.
28. Natroshvili, S.H. (2014). Organization of innovative activity of institutions of higher education. *Ekonomika i upravlinnya*, 1, 21-25.
29. Osova, O.O. (2012). Implementation of project method in organization of students' self-work in the foreign language lessons in pedagogical higher educational establishment. *Problems of Modern Pedagogical Education*, 35, Part I, 121-126.
30. Osova, O.O. (2009). *Role-play as a method of efficient organization of educational-cognitive activity of students in the foreign language lessons*. Materials of inter-universities science-practical.
31. Pometun, O. (2005). *Development of civil competence of students' youth*. Proceedings from the Scientific-Practical Conference, Opening of the European year of Civil Education in Kharkiv, Ukraine, February, 8-9, 2005.
32. Popper, K.R. (1991). *Objective Knowledge: an evolutionary approach*. Oxford: Clarendon Press.
33. Raven, J. (2002). *Competence in modern society: Identification, development and implementation*. Translated from English under the editorship of V.I. Belopolsky. M.: Cognito Center, 396.
34. Rubin, Y. (2005). *Globalization of education: Competence and credit system* (Ed.). M.: Market DS Corporation, 490.
35. Safonova, V.Ye. (2014). Innovation and innovative capacity of the education system: the economic and theoretical aspect. *Universytets'ki naukovy zapysky Khmel'nyts'koho universytetu upravlinnya ta prava*, 4, 230-239.
36. Sarfo, J.O. & Adusei, H. (2015). Is "one-teacher-to-all-subjects" enough? Ghana's publicprimary school system on a slippery slope. *Journal of Advocacy, Research and Education*, 3(2), 146-155.
37. Sharipov, F.V. (2010). Professional competence of a university teacher. *Higher Education Today*, 1, 72-77.
38. Shevchenko L.S. (2013). Typologization of innovation activity and innovation in the educational sphere. *Pravo ta innovatsiyi*, 4, 78-91.
39. Shishov, S.E. (1999). Concept of competence in the context of quality of education. *Standards and Monitoring in Education*, 2, 30-34.
40. Swann, J. & Pratt, J. (1999). *Improving Education: Realist Approaches to Method and Research*. London: Cassell.
41. Trebyk, O. (2013). Forms of organization of education: from past to future. *Mathematics in the Modern School*, 1, 34-39.
42. Vashchenko, V.P. (2018). *Innovative education: conditionality and essence*. Available at: <http://www.riep.ru>.
43. Zhernovnykova, O.A. (2012). Use of project method in the study of elementary mathematics by students of pedagogical higher educational establishments. In I. F. Prokopenko and V.I. Lozovaya (Ed.). *Pedagogy and psychology: the collection of scientific works*. Kharkiv: Digital publish house, 1, 81-87.

Primary Paper Section: A

Secondary Paper Section: AM

DEVELOPMENT OF CORPORATE SOCIAL RESPONSIBILITY AND FINANCING OF SOCIAL PROGRAMS: REGIONAL ASPECT

^aLIUBOV LYSIAK, ^bSVITLANA KACHULA, ^cOKSANA HRABCHUK, ^dVITALII ZIUZIN

^{a,d}University of Customs and Finance, 2/4, Volodymyra Vernadskoho Str., 49028, Dnipro, Ukraine

^bDnipro State University of Agriculture and Economics, 25, Serhiia Yefremova Str., 49000, Dnipro, Ukraine

^cNational Metallurgical Academy of Ukraine, 36/7, Orlovskaya Str., 49052, Dnipro, Ukraine

email: ^aL_Lubov@ua.fm, ^bs.kachula@ukr.net, ^cOGrabchuk@i.ua, ^dziuzin.vitalii@gmail.com

Abstract: The article aims to summarize the theoretical foundations of corporate social responsibility and identify current trends and prospects for socially responsible business in the financing of social programs at the regional level. Scientific research methods as analysis and synthesis, generalizations, analogies, induction, and deduction to formulate theoretical generalizations and results were used. Based on the article results, the development of the theoretical foundations of corporate social responsibility and the forms of its practical implementation in the context of European and Ukrainian trends is studied. The growing role of a socially responsible business in financing social programs implemented in the territory of its presence is shown. The need to develop partnerships at the regional/local level between local governments and socially responsible business on the financing of social projects and programs, the implementation of socially responsible investment is justified. The best practices of realization of corporate social responsibility of TOP20 companies in the territory of presence - in regions of Ukraine are generalized. Recommendations on the strategic development of corporate social responsibility and implementation of social programs at the regional level are offered. The conclusions reveal the need to use financial mechanisms/instruments in modern conditions to involve business in addressing regional/local importance issues, paying special attention to creating institutional conditions for intensifying partnerships between business and government to implement priority social programs based on public-private partnership EU countries.

Keywords: Corporate social responsibility, EU, Financing, Investments, Public-private partnership, Social programs, Ukraine.

1 Introduction

In recent centuries, social responsibility has been exercised to varying degrees by corporations, medium and small businesses in a country. Its role is growing significantly in the context of global and national financial and economic crises, slowing economic growth, increasing disparities in income and expenditure, deepening social inequality and tensions, exacerbating threats and challenges to the functioning of life support systems. At the present stage, social responsibility, embodied in the state's social responsibility, business, society, each person, is a necessary element of the Sustainable Development Goals (SDG) until 2030, which countries adapt to their national characteristics and conditions [63]. Essential aspects of the implementation of the concept of sustainable development are the definition of national priorities and mobilization of stakeholders, as well as financial and other resources to address common (state) and local (regional, local) tasks, the formation of mechanisms for effective implementation of corporate social responsibility.

The combination of financial potentials of the public and private sectors in the implementation of socially useful social programs to improve the welfare of the population, promote a fairer distribution of public goods, improve the environment and address other important issues is an urgent issue in the context of acute financial resources and increasing debt of the world for a society of social tasks.

2 Literature Review

2.1 Development of Theoretical Foundations of Corporate Social Responsibility (CSR)

Issues of social responsibility development and the role of the state and business in this process began to be actively discussed by scientists and practitioners in the last century [6] and subsequently concentrated in varying degrees in the "umbrella" concept of corporate social responsibility. Scientists' approaches to defining the essence and principles of social responsibility, its

role in financing the sustainable development of social/local communities have changed in growing awareness of its need, importance in stabilizing social processes, and the ability to address acute social and other problems quickly, strengthening of various factors influencing the scale of practical involvement of business in meeting the demands/needs of civil society and population.

CSR is generally interpreted as an independent/voluntary commitment of business to maintain sustainable economic, social, and environmental development to improve the quality of life of the population through actions that are beneficial for both the business and society's development as a whole. The European Commission defines CSR as "a concept by which companies combine social and environmental issues in their activities and in interaction with key partners on a voluntary basis" [24]. According to the World Business Council, corporate social responsibility is a long-term commitment of companies to behave ethically and promote economic development while improving employees' quality of life and the environment.

The concept/model of social responsibility presented by Carroll in the form of a pyramid of realization of corporate social responsibility [10] became debatable, but at the same time often used among researchers. Each subsequent level of the pyramid (in the sequence of levels: economic responsibility (the foundation of the pyramid), legal obligation, ethical responsibility, philanthropic responsibility) is based on all previous ones, and the top of this pyramid is charitable activities of the organization, including voluntary business participation in social programs. Examining CSR problems in Africa, W. Visser showed that in developing countries, the priorities of responsibilities/responsibilities in the Carroll's pyramid are different from those for developed countries [61].

Given the subsequent pace and trends of CSR in developing countries, A. Carroll and M. Schwartz presented an improved model of corporate social responsibility as the intersection of many economic, legal, and ethical areas of responsibility [58]. Modern researchers note that the disadvantage of this model is the lack of attention to the social component of business responsibility, as a reflection of the interests of "various social groups whose lives are considered by business as a social condition for the expanded reproduction of all types of capital" [43].

Based on a systematic approach to social responsibility, scientists consider the social responsibility of business and the state, society, and the possible consequences of their irresponsible actions [38, 42, 67]. Examining the phenomenon of social responsibility of society and institutions at all levels (personal, corporate, institutional, and state), the contradictory practice of its development at the turn of the millennium is noted [39, 42]. The need to implement the national idea of social responsibility in the general social development system is substantiated [31]. There is "basic" and "broader" social responsibility, focusing on the state's leading role in its development. The primary task of the state is to streamline the actions of all actors in society to perform "basic social responsibility" based on strict compliance with the law (e.g., timely and full payment of taxes, payment of fair and official wages, quality assurance, reduction of harmful emissions) [32]. This approach develops the conclusion of the famous scientist Friedman (1970), according to which in the conditions of formation, strengthening of market institutions, development of institutional structure/environment of society (as it happens in countries with transformational economies), corporate social responsibility cannot be based only on owners' initiative business – it is a forced step, which is due to the influence of the state, including the influence of regional/local authorities and the local community [22].

Thus, the existing contradiction between the private interests of business related to making a profit and society's interests in terms of maintaining social stability requires the formation of appropriate motivational mechanisms for the implementation of social projects and programs. Scientists consider social partnership to be the most effective, efficient, and at the same time motivational mechanism for the formation of corporate social responsibility [31, 35, 55].

Examining CSR's financial aspects, B. Scholtens believes that the driving force of its development changes in socially responsible corporate policy and increasing the sustainability of the corporation's performance finance. The scholar, focusing on the indirect impact of the credit channel and private capital on the firm's non-financial policies and performance, sees them as powerful tools for expanding funding opportunities to promote socially and environmentally responsible activities and prevent irresponsible activities [57].

Researchers attribute an important role in CSR implementation to socially responsible and sustainable investment [7, 8, 9], and socially responsible investments are attributed to a higher level of corporate social responsibility [3].

Camilleri (2020) examined the evolution of socially responsible investment (SRI), the development of its various forms in the financial market, and the increase in the number of stakeholders interested in enterprises' environmental, social, and managerial behavior. An indicator of social responsibility (as well as irresponsibility) of business is the target direction of financial flows, and their size, timeliness, a certain intensity over time and other characteristics are important, which is important to consider in the process of socially responsible investment [51]. Researchers consider the provision of health and social protection of present and future generations to be the priority areas for investing in socially responsible businesses [50].

A feature of CSR is the voluntary nature of business initiatives. Still, its implementation is essential for all economic entities because they interact with internal and external stakeholder groups [44].

Deepening the decentralization processes in Ukraine and turning the regions into full-fledged subjects of financial relations requires the authorities and local governments to create favorable conditions for sustainable development of territories, effective use of existing potential [66]. The role of a socially responsible business in the region of its presence significantly increases. Studying the regional aspects of CSR in different countries, scientists focus on possible contradictions, conflicts of interest [19]. The need to use in modern market conditions flexible mechanisms to attract business to local issues, which can consolidate the efforts of business and government [23].

An important issue, the study of which will contribute to the solution of social problems at the regional level, is the search for ways to develop CSR in terms of partner financing of social projects/programs by businesses in their territory.

2.2 Current European Trends in the Practical Development of CSR and Funding of Social Programs

The origins of CSR formation are associated primarily with the progressive development of large businesses in the European Union (EU). The functioning of corporations as economic entities interested in maximizing profits, under the influence of various factors, has changed over time towards a social orientation, combining traditional business guidelines and social values. Reflecting this trend, researchers have summarized the socially responsible behavior of business concerning the subjects of the social environment within three concepts – "corporate egoism", "corporate altruism," and "reasonable egoism" [39].

In the EU, CSR is developing at the national and supranational levels. Therefore, a socially responsible business is guided by international or national CSR standards based on them. They are based on guidelines enshrined in international instruments,

among which are fundamental: the European Commission's Green Paper "Support to the European Corporate Social Responsibility Framework" [24], the UN Global Compact, the OECD Guidelines for Transnational Corporations (OECD Guidelines for Multinational Enterprises) and some others. A significant role in CSR's functioning is assigned to the international standard ISO 26000 "Guide to Social Responsibility" [27, 28]. The publication of the EU Green Paper (2001) is considered the beginning of developing the European CSR system at the supranational level. Public and state interest in it is only growing. It is important to note that the provisions set out in the Green Paper are in line with the directions of large-scale global goals – the Sustainable Development Goals (SDG). CSR in the context of sustainable development of society assumes that business integrates its goals and society's goals and directs its resources to the overall economic, social, and environmental development [20].

Even though from time to time there are violations of business ethics of behavior, human rights, standard working conditions, safety, use of child labor, environmental standards, and other socially significant issues, in today's world, there is a strong trend. In practical terms, the development of CSR in EU countries has ranged from one-time charities to understand the importance of social programs in the long run and ultimately to a fundamental awareness of CSR as an integral part of modern business [46].

Directive 2014/95/EU required all EU Member States to implement laws, regulations, and administrative provisions requiring companies to include environmental, human rights and anti-corruption, and anti-bribery activities in their annual reports. Since 2017, these requirements have become mandatory for large companies with more than 500 employees [20]. One of the main forms of implementation and realization of CSR principles is corporate social responsibility and realization of separate projects.

A variety of mechanisms/tools are widely used to implement CSR in the EU to achieve socially responsible business practices. Such common mechanisms/tools include social brand, social business technologies, social marketing, social assistance, social investment, public-private partnership [33]. Implementation of social projects and programs is carried out in all forms of CSR implementation: in the process of charitable activities, sponsorship, socially responsible investment, social marketing, corporate volunteering (delegation), public-private partnership.

The system of social responsibility in general and CSR of business in developed foreign countries in its modern form which was formed as a result of constant development and expansion of the range of business relations with the state and civil society [25, 26].

In recent years, there has been a shift in CSR models in the EU, with a shift to business models that incorporate CSR and sustainable development concepts and are based on interaction and inclusion of diverse stakeholders in the value creation process. The main participants in the modern market of socially responsible investment in the EU are investment funds and financial institutions, providing investors with the opportunity to invest according to their personal beliefs and principles on socially important issues [56]. Approaches to the implementation of social projects and programs are increasingly focused on the development of partnerships.

Socially responsible business in European countries operates in an active government policy towards CSR. In the EU, each country has its own national CSR plan, which allows forming a common understanding of CSR and the priority areas. Of the emerging (transforming) economies – new EU members – such plans have been developed in Bulgaria, the Czech Republic, and many other countries. CSR in the new EU member states is on its way. Significant differences in the development of CSR between post-socialist and developed countries are determined by cultural and mental characteristics, which determine the

attitude of stakeholders (society, consumers, employees, management, government, and communities) to the concept of CSR [2].

The initiative to create and develop CSR in European countries comes from individual countries or individual companies, and the choice of forms and methods of CSR depends primarily on society's expectations [62]. European countries pay considerable attention to social programs and interaction in the social sphere between government agencies, employers, and workers.

In general, being an important tool for implementing social and other projects and programs, CSR in each country has certain features that have identified common models of social responsibility used in world practice. In the EU, the most common are four CSR models: continental (Germany), Anglo-Saxon (UK, Ireland), Scandinavian (Denmark, Sweden, Finland) and Southern European (Italy, Spain, Greece, Portugal) [16, 34, 37]. These models reflect the cultural, economic, and social conditions of the regions and differ in the degree of participation of the state and business in developing social responsibility, the implementation of the principle of social justice, and social protection. The state's most active participation in the development of CSR is carried out within the Anglo-Saxon model. In the United Kingdom, for example, a post of CSR minister has been created. The establishment of public-private partnerships in the education sector is also widespread; co-financing projects, preferential taxation, and promotion of initiatives to comply with international standards. The model is based on the social protection system's universality - its distribution to all those in need.

Within the European models, despite country differences, CSR development is regulated by law or carried out independently under the influence of benefits and incentives. In the first case, the conditions for interaction between business and society are determined by the state. In the second, the state creates mechanisms to stimulate business for the implementation of certain areas or programs. In any case, active government regulation of the basic principles of business social responsibility and their systemic legal regulation is carried out [62], companies develop strategies that are an integral part of their overall development strategy, and non-financial reports are generated with a certain frequency [18]. CSR is characterized by the influence of voluntary initiatives on developing the economy, employment of the population, working conditions and wages, and environmental protection. Business responsibility extends to solving social problems through joint activities with local governments funded by grants [64].

Regional/local authorities play a leading role in developing strategies for the economic development of regions, cities, involving other groups of stakeholders. According to a study by the International City/County Management Association, local chambers of commerce, local businesses, local community councils, government agencies, and private economic development funds develop economic development strategies [60]. Municipal economic development strategies are implemented in cooperation with local business companies, universities, and a public-private partnership mechanism. Among the most common local strategies are the development of local infrastructure and separate zones within the city, training programs by the needs of local businesses or sectors of the local economy, the creation of municipal business lending funds, the development of municipal development corporations, the development of micro-entrepreneurship, and others. Financing of measures for the implementation of municipal strategies is usually carried out through an effective combination of funds from the central and local budgets and by attracting credit and investment resources for the implementation of individual projects within the framework of such programs [65].

Large corporations in Europe are planning strategic investments, investing in non-profit organizations that serve vulnerable groups, and focusing investments on social programs. The main social investment areas are related to vital human needs and

disaster relief, access to education, and economic empowerment. Companies are also investing in technologies that help people in crises, from delivering humanitarian aid to post-disaster relief [14, 15, 16]. According to the 2018 Global CR RepTrak® survey conducted by the Reputation Institute, the leading CSR positions in 2018 were taken by Walt Disney Company, The LEGO Group, Natura, Novo Nordisk, Microsoft, Bosch, Canon, Michelin, and IKEA [53].

Some economists refer to the European version of CSR as the "corporate social responsiveness" (European Industrial Relations Observatory). Crane and Matten (2004) distinguish the following differences between the European CSR model (in particular, from the American one) [16]:

- In addition to the profitability of the business and its responsibility to shareholders, the economic component of the CSR pyramid includes the responsibility to its personnel and the local community in the territory of presence;
- Legal responsibility is the basis for any form of social responsibility in the EU countries. At the same time, business regards the state as an institution that enforces the accepted rules of conduct;
- European companies consider various social problems to be ethical responsibility while not trusting their solution to the private sector.

Additionally, the researchers also highlight the existence of legally binding mechanisms for EU companies' participation in charity events [5].

Socially responsible companies modify their production and commercial activities in stakeholders' interests (choice of development strategies, employment policies, technologies, products, resources, trading partners, etc.) and make social investments to support various public projects, regional and urban development, charitable beginnings. An important aspect of CSR is the achievement of commercial goals with the need to implement social, ethical or environmental and other projects and programs [49]

Modern trends and transformations of management practices in the EU indicate the use of social partnership technology in solving the problems of socio-economic development of territories [23]. For developed countries, the formation and development of partnerships between the authorities and society in choosing priority strategic areas of social development are quite acute.

The EU countries' experience shows that social partnership is an important factor in increasing social policy efficiency, the implementation of social programs following the priority areas of regional development. This approach contributes to establishing a new discourse in management, the formation of responsible, self-disciplined partners [36].

2.3 Development of Corporate Social Responsibility (CSR) and Financing of Regional Social Programs in Ukraine

CSR in Ukraine was born in the formation of private property, strengthening of market relations, increasing openness of the economy, European integration aspirations, and the establishment of institutional foundations for the operation of foreign companies on the country's territory.

The implementation of CSR in the country is a set of targeted measures to solve economic, social, and environmental problems of both the enterprises themselves and the region of their activity/presence by investing in various directions and programs that can bring benefits to all participants in the process in the long term [30].

A company can be considered socially responsible if it acts in accordance with the principles of social responsibility and implements a set of social projects and programs in priority areas for it [40, 45]. At the same time, the return of funds in the

traditional sense is not a prerequisite for social investment. Indirect qualitative indicators can also assess the result in the form of social effect (improving the quality of reproduction of labor resources) or benefits for business (image growth, reputation enhancement) [29]. Socially responsible business activities in the territory of presence have a positive effect on the development of the economy and social sphere. An important aspect is the formation of common values among the authorities and the business community, a change in their behavioral attitudes, which will contribute to social partnership and increase the level of social responsibility of business in the territory of presence [69].

It is necessary to form and use financial mechanisms to attract businesses to address issues of regional/local importance based on developing partnerships between business and government for the implementation of social projects and programs. It is worth agreeing that such mechanisms should have certain flexibility [23].

An important aspect is the consolidation of efforts of the state, local government, business, and civil society. In countries with a transformational economy, civil society is at the stage of formation and is characterized by weakness; therefore, some authors consider developing the mechanism of social partnership a priority for the formation of the institution of civic responsibility [41].

Business responsibility extends to solving social problems at the territorial level through joint activities with local governments, funded by grants.

Today in Ukraine, there are many existing grant programs in the field of education, science, medicine, and social security. The allocation of charitable funds to public organizations' social projects can be viewed as social investments that make it possible to develop human resources, create new services, open additional jobs, and improve living conditions for the population.

The impetus for the furthermore active development of CSR in Ukraine should be the Concept for the Implementation of State Policy to Promote the Development of Social Responsible Business until 2030 (hereinafter – the Concept) [1]. It is about the official recognition of social responsibility, the state's understanding of its importance, and society's need. According to the definition of the Concept, the implementation of state policy in the field of promoting the development of socially responsible business and the implementation of measures will be aimed at implementing the Concept. It will provide the majority of domestic business entities with the opportunity to improve their business reputation in international markets by introducing a responsible attitude towards their employees and partners. And in the long term will improve the reputation and image of the state.

An important aspect of implementing the Concept is its real implementation into the practice of the outlined Action Plan, responsibility for their implementation. It is necessary to specify the reporting. The results should not be vague unsubscriptions, such as "the results of the survey are published", "the review is prepared and presented," but clearly and understandably for stakeholders to indicate an active link where you can view the report on the completed task. An important aspect is the planned promotion of recommendations to business entities to improve their strategies for taking into account the principles and standards of socially responsible business, the implementation of the State Standard of Ukraine ISO 26000: 2019 (ISO 26000: 2010, IDT) "Recommendations on social responsibility".

3 Materials and Methods

CSR, as defined in the Concept, is the responsible behavior of companies for the impact of their decisions and actions on society, the environment, and other objects, which takes into account the expectations of companies and society; complies with legislation and international standards of conduct; integrated into the company's activities. The signs of classifying

an enterprise as one that demonstrates a high level of CSR is its involvement in:

- Implementation of social projects in the field of human rights protection (construction of housing for internally displaced persons, social housing); creating conditions for organizing treatment and adaptation of service members; provision of healthcare institutions with medical equipment; construction and arrangement of schools and orphanages; implementation of social projects;
- Participation in the creation of new jobs (employment of youth, internally displaced persons, persons with disabilities, participation in the improvement of labor legislation);
- Participation in the organization and support of the environmental protection system; search for new opportunities to improve environmental performance; ensuring that appropriate training for workers is carried out on environmental, health, and safety issues, including the correct handling of hazardous materials and the prevention of accidents with environmental consequences.

In fact, these are areas that reflect the priority areas of social policy of the state and administrative-territorial entities.

The Concept outlines the main advantages for companies implementing CSR principles: the opportunity to improve business reputation in international markets and, in the long term, improve the reputation and image of the country. The experts say that this Concept's bottleneck is the absence of fixed principles and financing sources for the action plan for the implementation of the Concept.

The need to intensify businesses' participation in financing social programs at the regional/local level in Ukraine is due to the weakness of the budgetary potential caused by the action of exogenous and endogenous factors. In addition, the situation is complicated by the fact that the country is implementing reforms in many social spheres (education, healthcare, housing, and communal services, etc.), as well as budget and tax reforms are being carried out with varying degrees of intensity, and the processes of decentralization are deepening.

Despite the economic, social, and political instability, an increasing number of both Ukrainian and international companies have been implementing CSR in Ukraine in recent years.

Analysis of the official websites of companies that are included in the TOP-20 employers of Ukraine (Rating of employers, 2020) showed that today when preparing reports, Ukrainian companies are guided by international standards are guided by their own experience. As a result, non-financial reports of Ukrainian companies (for which they were compiled) contain unsystematic and incomparable information. Each company determines a social reporting format following its own needs, the desire to highlight certain aspects. The most common aspects of non-financial reporting include social (working conditions and human capital development; charity; cooperation with local communities) and environmental (conservation and reproduction of the environment, water purification, etc.).

The most common practices of CSR implementation in companies in Ukraine are implemented in the following areas:

- Labor relations (raising wages, paying bonuses, providing employees with flexible working hours, implementing a program to improve professional growth, creating new jobs) [68];
- Environmental responsibility (introduction of energy-saving technologies and programs for sorting and recycling of waste);
- Relations with consumers (maintaining the quality of the company's product, providing truthful information and advertising, training for personnel on customer service issues, developing a complaints management system, and organizing a "hotline" (contact center) for consumers) [70];

- Development of regions (allocation of funds for charity, assistance in landscaping);
- Anti-corruption practices (refusal of bribes for solving business problems).

The most common CSR practices in Ukraine in 2018 were distributed as follows: 76% – the policy of development and improvement of personnel working conditions; 51% - charitable assistance (although businesses no longer perceive CSR as a charity); 30% – assistance to migrants. However, in some companies that implement CSR, only slightly more than half (52%) have developed a social responsibility policy/strategy; 24% of companies make up the budget to implement programs/activities. And only 13% of companies prepare non-financial reports (Center "CSR Ukraine"). A survey of business representatives revealed that the key areas of CSR development in Ukraine are: personnel development and improvement of their working conditions, investments in the development of the region, and consumer protection and support.

4 Results

In 2019, the TOP-20 socially responsible companies ("companies that care") included representatives of different spheres of activity (Table 1).

Table 1: TOP-20 of the best socially responsible companies in Ukraine in 2019

№	Company name (industry)	Region of presence	CSR projects / programs, funding
1	Astarta (agro-industrial complex)	Seven regions of Ukraine	IT education in rural areas (in partnership with the BrainBasket Foundation and the Miratech company).
2	LLC "VOG Retail" ("WOG") (Sale of fuel and related products)	Ukraine	"Road to the Heart" (Pediatric Heart Surgery) - 10 years old.
3	DTEK (Energy)	Ukraine	Programs "Training and advanced training of employees of state bodies".
4	Eve (Trade)	Ukraine	Support programs for mothers and children, social charity project Orange Days in EVA (medical equipment worth UAH 1.2 million).
5	Epochs "EPAM Systems" Information technology	Kharkiv, Lviv, Vinnytsia, Kiev, Dnipro	Investments in education, work of the "Programming World" station, environmental responsibility (rejection of plastic cups).
6	IDS ("IDS BORJOMI") Food products	Morshin, Truskavets, Mirgorod, Kiev	Cultural and musical project.
7	KERNEL Agriculture	12 regions of Ukraine	Projects within the framework of the "Together with Kernel" charitable foundation: to improve the levels of education, medicine, culture, sports, infrastructure in the regions of the company's presence, targeted assistance to the population.
8	Kyivstar Telecommunications	Ukraine	Social projects: safety, education development, support for health and a healthy lifestyle, charity, volunteering (UAH 23 million for 2016-2018). "Knowledge Without Borders" Project.
9	Credit Agricool Bank (CREDIT AGROCOLE) Banking services	Ukraine	Charity, volunteering, sponsorship, care for employees: the program "Policy of kindness", "We Care!" (support for environmental projects), green initiatives, the "French Spring" festival.
10	Metinvest Metallurgy	Mariupol, Zaporozhye, Kryvyi Rih	Long-term strategy for the city's infrastructure development: interaction with local communities (Mariupol Development Fund-PRM). Joint programs: "Smart City", "New Municipality", "Mariupol: Strategy 2021", "New Cultural Platform", Sports Development Strategy, "Cozy Courtyard"s and others.
11	M.S.L. State lots Issue and	Ukraine	Sustainable development of sports, culture and infrastructure

	sale of lots		(construction and development of the winter sports center "Liudohrai").
12	Nestle Food	Lviv, Kiev, Kharkiv, Volyn	Educational programs for youth.
13	OKKO Sale of fuel and related products	Lviv, Kiev, Kharkiv, Volyn	Educational programs for young people, security projects, helping the poor.
14	PepsiCo Food Products	Kiev	Improving the quality of drinking water "Clean Water" (within the framework of PepsiCo's global strategy "Winning Responsibly"), helping orphanages in cooperation with the Blagomai charity foundation.
15	FUIB finance	Ukraine	Educational programs, including improving financial literacy (projects "Club of Money Lovers", "People's Banker"), development of the business environment.
16	Syngenta Agriculture	Kiev	Financing career guidance programs and educational projects (internship program "Students", internal project for children of employees "Syngenta Teen Camp").
17	Group of companies "Smart Energy" Energy	Poltava, Kharkiv region	Local community support projects.
18	Group of companies "Ukrlandfarmin g" Agriculture	Ukraine	(in 2018 - UAH 3 million); In the Poltava region, projects have been implemented: repair of a hospital, a water supply system, a rural house of culture, schools, kindergartens (1.65 million hryvnias), in the Kharkiv region: repairs are expensive, schools, installation of street lighting, the development of culture and sports (1.26 million hryvnias) and etc.
19	Henkel , Henkel (Chemical)	Kiev, Vyshgorod	Support for local communities, financing of educational programs. Projects on vocational guidance "World of agricultural professions", "Day of a small farmer ULF".
20	AVON Cosmetics	Schastlivoe village, Kiev region	Environmental, educational ("Feel the Book" project) and other sustainable development projects ("Sustainable Development Ambassadors" project).

Source: Saprykina, M. (ed.). (2019). CSR Practices in Ukraine 2019, CSR Development Center, Kyiv, 152.

As follows from Table 1, in Ukraine, an increasing number of large companies are implementing various social and charitable programs and events, but they are rarely systemic, more often episodic. Their effectiveness for business and the territory of presence is blurred.

Since 2011, the CSR Ukraine center has been assessing the level of disclosure of information on corporate governance, relationships with employees, environmental protection, and other CSR issues on Ukrainian companies' websites (Transparency Index). In 2019, 86 websites of companies included in the TOP-100 largest taxpayers in Ukraine were analyzed (of which 14 companies do not have websites), among which 63 are private companies and 23 were state-owned. The assessment refers to companies' activities in 2019, that is, before the epidemic caused by COVID-19. The analysis results showed a low level of transparency of TOP-100 companies' websites - 25.5%. Among the TOP-10 companies, according to the Transparency index, the level is 52.3%. Only six companies posted non-financial reports for 2019 on their websites. Seven companies have marked the Sustainable Development Goals on their corporate website pages. In 2019, only 24% of Ukrainian companies had formed budgets for next year to implement CSR projects. Basically, these are internal investments, which are developing their personnel (human capital), saving resources, and meeting employees' requirements. A significant proportion of these is programs of the "basic" level of social investment, which cover the payment of contributions to compulsory social and non-state health insurance programs, the cost of ensuring

adequate working conditions, advanced training, and educational programs for workers.

In 2018-2019, companies in Ukraine have invested over UAH 411 million on social projects. Among 56 surveyed companies (33 – international with an office in Ukraine and 23 national), 89% implemented educational projects and improved working conditions for personnel, and 71% – projects for personnel development; 62.5% – implemented environmental initiatives, 91% cooperated with public organizations and charitable foundations.

Information from the CSR Development Center for 2019 indicates that, in general, the most common areas in which CSR of enterprises is implemented are the policy of development and improvement of personnel conditions, constant consumption, quality education, and partnerships for sustainable development. The annual budget allocated by companies for CSR is UAH 2,221,429. The amounts of financing are different: 19% are financed within the range of UAH 0-100 thousand, 39% – UAH 101 thousand – 1 million, 29% – UAH 1-10 million, and 3% – over UAH 200 million [56].

Based on CSR UKRAINE data, which has been implementing CSR and sustainable development for systemic and qualitative changes in Ukraine for ten years, in 2020, already 83% of companies are implementing CSR in Ukraine. At the same time, an analysis of the official websites of large taxpayers in Ukraine indicates the problems associated with the formulation of CSR development strategies. Taking this into account, it can be argued that in Ukraine, most companies (both large and medium-sized) do not have a specific strategy of social responsibility and are at the stage of compliance with the legislation and implementation of "targeted" charitable projects and programs.

In connection with the emergence of the COVID 19 pandemic in the world and the associated decline in economic activity, socially responsible companies are changing priorities and looking for new tools, mechanisms, and goals to implement social programs. The most relevant directions in the territory of business presence today are social programs in health care, support for low-income, socially vulnerable segments of the population, and the adaptation/reorientation of business activities under quarantine restrictions. Interaction with government agencies and regional authorities through non-profit organizations has intensified. The traditional ways of communicating with consumers and other stakeholders during the pandemic have lost their relevance. The only available tool that strengthens the brand's reputation is enterprises' actions to fight the coronavirus.

In 2020, amid a pandemic, socially responsible companies in Ukraine support local communities, hospitals, and authorities (TOP 25 best projects of CSR 2020). The analysis shows that almost all companies operating in Ukraine, which are included in the TOP 20 socially responsible robot producers in 2019/2020, implement social programs in the presence regions. A generalized analysis by areas of business presence is presented in Table 2.

Table 2: Implementation of events and social programs by socially responsible companies in Ukraine in the territory of presence in the context of the COVID 19 pandemic (2020)

Company, industry	Social programs in 2020, funding **
Regions of presence: Northern region (Zhytomyr, Kiev, Sumy, Chernihiv regions), South Region* (Zaporozhye, Nikolaev, Odessa, Kherson regions) Eastern region (Donetsk, Lugansk, Kharkiv regions), Central region (Vinnytsia, Dnepropetrovsk, Kirovograd, Poltava, Khmelnytsky, Cherkasy regions)	
ATB market	Purchased 12 modern CFX96 systems (for the diagnosis of infectious diseases for the amount of about UAH 10 million).
Northern region Southern region * Central region, City of Kiev	
Monobank	To fight the coronavirus, more than UAH 7,556,054 have been raised, assistance has been provided to 459 doctors.
Southern region * Eastern region, Central region, City of Kiev	
WOG	Provides fuel for 20,000 medical visits to the

Volyn region.	
South region * West region (Volyn, Transcarpathian, Lviv, Rivne, Ternopil, Chernivtsi regions)	
Silpo	Allocated 100 million hryvnia for the purchase of equipment for hospitals and medical protection means. Of these, 13 million hryvnia was used to buy 12 HAMILTON (Switzerland) artificial lung ventilation devices for hospitals.
West Region, East Region, North Region	
Darnitsa	The Zagoriy Foundation charitable foundation purchased three Vela ventilators (USA, Viasys), an express analyzer, rapid coronavirus tests and diagnostic kits for emergency hospitals (in the amount of UAH 155,000).
North Region	
Coca-cola NVS Ukraine	Drinking water and drinks for the needs of medical staff and patients (7,300 bottles) were transferred to hospitals.
West Region, North Region	
Auchan Ukraine	"Feed the doctor" action. Implementation of a program to help children and people with Down syndrome (collection of social packages). Auchan Foundation: implementation of social projects for youth (provision of grants in the amount of 50,000 euros for the implementation of extremely important projects during the COVID-2019 period: purchase of 2 artificial lung ventilation devices, protective equipment, communications, food sets, etc.).
West region	
OKKO network	Financed 20,000 flights of doctors via Uber, 10,000 - Bolt and 20,000 - Uklon. 20 artificial lung ventilation devices were purchased.
Softserv	10 million UAH were sent to the corporate charitable foundation "Open Eyes" to help hospitals, more than 3,600,000 UAH were donated by the company's employees; additionally, the Fund announced a fundraising on its website, having accumulated about UAH 850,000 (aimed at purchasing equipment for artificial ventilation of the lungs and personal protective equipment for hospitals in 7 cities of Ukraine; more than 4 tons of personal protective equipment, 2 ventilators, express tests for mass testing of the population). The company has implemented two initiatives in partnership with the Lviv Regional Council - the "StopCovid-19" resource and the "FightCovid19" website.
East region	
Vodafone Ukraine	Allocated UAH 33 million (purchased 5 ventilators for hospitals, testing and protection systems for doctors). The NEQSOL Holding group of companies, which owns Vodafone Ukraine, has allocated USD 1,000,000 to fight the coronavirus in Ukraine and provided a number of free services. From April 1, Vodafone began charging medical workers 10 GB of mobile Internet and 1000 minutes for calls to numbers of all operators in Ukraine, including city networks.
PrivatBank	EUR 1 000 000 were allocated for the supply of 28 artificial ventilation devices and other necessary equipment to Ukrainian hospitals.
Philip Morris Ukraine	Donated UAH 10 million to fight coronavirus.
Kiev city, East region	
DTEK	In partnership with the Luhansk Regional State Administration, we created and launched the STOP Covid-19 website. The site is the third platform created with the support of DTEK in the regional headquarters. DTEK (as well as Metinvest and the Shakhtar football club) has become a partner of regional anti-crisis headquarters in the fight against the COVID-19 epidemic in Donetsk, Lugansk, Lvov and Ivano-Frankovsk regions. The Rinat Akhmetov Foundation purchased 300,000 express tests for the Stabilization Fund under the President of Ukraine, 200 artificial lung ventilation devices and other equipment.
All over Ukraine	
Kyivstar	"Charitable assistance of UAH 30 million for the purchase of medical equipment and protective equipment for doctors (10 Savina 300 Select ventilators and 20 Vista 120 patient monitors (Germany, Drager). Earlier UAH 30,000,000 were invested to implement supportive initiatives during the quarantine period. The company supports a national project "All-Ukrainian school online".
McDonald's Ukraine	Donated UAH 1,000,000 to the Ronald

	McDonald House Foundation for the needs of hospitals where children with COVID-19 are located. A fundraising was organized on the Foundation's website (rmhc.org.ua/donate) for the purchase of protective equipment for doctors.
Nova Poshta	UAH 25 million were allocated for equipment and materials for hospitals. The project included sewing and delivery of 2,000 protective suits for doctors in Chernivtsi. In coordination with the Office of the President, 6,500,000 units of medical supplies, 6 million pairs of protective gloves, 7.5 thousand hats, 14 thousand pairs of shoe covers, 19.5 thousand thermometers, more than 3.6 thousand pulse oximetric sensors for children and adults, about 5 thousand virus-bacterial filters, etc. In March, "Nova Poshta" announced the expansion of the social project "Humanitarian Mail of Ukraine" (free delivery of personal protective equipment to medical institutions, orphanages, military personnel, representatives of vulnerable groups of the population).

*The study was not carried out on the territory of the Autonomous Republic of Crimea.

Source: compiled by the authors using the data: Employment rating 2019/2020 Personnel portal of Ukraine. URL: <https://hhcdn.ru/file/16886619.pdf>; Catalog of companies' actions to combat COVID-19. URL: <https://csr-ukraine.org/covid-19/>

Analysis of the data summarized in the table reveals socially responsible companies (their size, industry). All companies from the rating are large, with a predominantly ramified network of branches, by industry, with rare exceptions, these are service sector enterprises (communications, postal, financial, trade).

5 Discussion

According to surveys of company executives, they are planning forced budget cuts for CSR programs, especially in those industries that experienced a decline during the pandemic (65% of respondents said this). Simultaneously, budget cuts can affect other non-production business processes of companies: HR, PR, GR, marketing, etc.

Social investments can be carried out directly, implementing the company's social project, and participating in the implementation of social projects of state target programs for the social development of a certain territory (region, district, city). Obviously, in modern conditions, the implementation of social programs, including the development of social infrastructure, is vitally necessary and possible by consolidating the business's potential, the state, and local authorities [48].

In the last decade, in the process of formation and implementation of social projects within the framework of state target programs, both in developed countries and in countries with a transformational economy, an innovative/progressive approach is the use of program budgeting. Programs are developed in line with the formed strategies for the development of the country and regions, taking into account the problems, national characteristics, and resource (primarily human and financial) capabilities [52].

The need to improve the financing of social development in Ukraine presupposes an increase in the effectiveness of fiscal policy's strategic tools in the context of budgetary reform [13]. Deepening the processes of financial decentralization in the country transfers the problem of implementing targeted programs to administrative-territorial entities. Social programs, a feature of their focus on solving some social issues/tasks, have a clearly defined result.

The main problematic aspects of the formation and implementation of targeted programs in Ukraine are changes in their financing conditions, insufficient risk assessment, and underfunding. The limited budgetary resources require optimization of expenditures of state and local budgets, the actual use of program-targeted budgeting, the introduction of effective control over targeted and efficient spending of

budgetary funds, an increase in the responsibility of local governments for the results of decisions, and the involvement of socially responsible business in the implementation of social programs.

For the effective implementation of social programs, they need to be supported by all stakeholders (stakeholders), the use of new methods and technologies based on the practical experience of countries that successfully solve emerging challenges and problems. In this aspect, an important form of CSR implementation is assistance in solving social problems of the territories of presence, participation in the implementation of regional targeted social programs.

One of the elements of the implementation of state target programs can be investment programs (projects) that are implemented in individual cities within the framework of state and regional target programs at the expense of the state budget and other sources. Local authorities can initiate the implementation of social partnership projects, subject to the expansion of their powers and maneuver in the management of budget funds. In Ukraine, the necessary conditions continue to form for the development of partnerships between local authorities and businesses. These include:

- Expanding the financial autonomy of local budgets in the context of budget reform;
- Increasing the role of local taxes and fees in the budgetary provision of local authorities' exercise of powers;
- Deepening decentralization;
- The formation of united territorial communities (communities);
- Some others.

In this regard, local authorities must solve some important tasks: develop high-quality social projects necessary for the development of the social sphere and at the same time encourage the creation of initiative, social projects by the business. Projects proposed by the business for implementation within the framework of a public-private partnership must be assessed as soon as possible, taking into account their social effect, impact on the quality of life of the population, and compliance with the strategic priorities of the region's development. Justifying the need for such projects in infrastructure development, I. Zapatrina focuses on the fact that it will be difficult to overcome the crisis without the participation of private business, and in some countries, it will be impossible [71]. Taking into account the possibility of corruption risks, it should be taken into account that the success of the assessment and implementation of such projects will depend on the qualifications of civil servants (responsible for this area) and the strengthening of control over their activities.

It should be borne in mind that companies that include principles of socially responsible behavior in their strategy, first of all, pursue their interests [4, 11, 12]. In general, they can count on an increase in competitive advantages, investment attractiveness, brand recognition, and popularity, an increase in trust from foreign partners, the population, authorities, and local governments in the results of their current activities, strategic development goals. The need to diversify sources of financial support for the implementation of regional social programs increases the need for government incentives and support for CSR as a source and driving force of changes in social programs' financing [54]. The need for such changes is growing in a crisis. In the process of developing tools to provide incentives for business to social responsibility, it should be borne in mind that the basis for sustainable development of companies in the relevant region is the creation of a solid system of interaction with local authorities/local community. The emergence of a disparity in business and local communities' interests leads to an increase in the level of social tension and limited opportunities for business development in the regions. [19]

Therefore, an effective and efficient system is needed for the implementation of the process of harmonizing the interests of the

state, business, society and ensuring at all levels mutually beneficial cooperation of state (regional, municipal) authorities, business owners (employers), representatives of employees (trade union organizations), which will provide prevention or mitigation contradictions arising in the process of forming the institution of social partnership. This kind of interaction is based on mutually beneficial social partnership and includes reciprocal initiatives of business and community in the aspect of implementing local programs and achieving social results [47, 59]. Accordingly, local communities should be required to acquire the position of an "active recipient" who, firstly, actively defends their interests. Secondly, it can offer the business a high-quality workforce, favorable business conditions, and the accumulation of financial flows in the region.

In the realities of Ukraine, a significant number of enterprises are not interested in the transition to a new business model, since, for the most part, they are implementing the strategy of "survival" in the conditions of the crisis in the social, political, and economic sphere of Ukraine. Despite the difficulties, over the past ten years, many Ukrainian enterprises have made a kind of "socially responsible" breakthrough, developing and demonstrating formats of work in the field of CSR adapted to local realities. In Ukraine, the number of socially responsible enterprises is continually increasing, which have opened their charitable foundations and implement strategic charitable initiatives, participate in charitable programs,

The practice of publishing the company's annual open social report on the results of their activities is actively borrowed from foreign experience. However, the formation of social responsibility of domestic business is lagging behind in comparison with developed EU countries. Socially active in Ukraine are mainly branches and representative offices of large international corporations. In fact, there are no representatives of small and medium-sized businesses in the country.

6 Conclusion

Modern global challenges determine the strengthening of regionalization processes. In such conditions, a business that understands CSR's importance and prospects and implements its principles is an essential component of sustainable development of each country's territories. In the context of limited financial resources in the context of a pandemic and economic crisis, a key aspect is a partnership in forming and implementing social programs, as the embodiment of social responsibility of the state, business, and society.

Territorial authorities and local self-government, taking into account the prospects of cooperation with business, should also show social responsibility and be interested in partnerships with the company to implement regional/local social programs. The content and volume of funding for CSR projects and programs that are implemented by businesses in the territory of their presence should work to implement the strategic and tactical goals and objectives of sustainable development of the region, be consistent with them, supplement/strengthen the potential (human, financial, material) of territorial communities, contribute to enhancing their sustainability.

Necessary conditions contributing to the development of CSR in Ukraine at the regional level, following from our research, are:

- Consistent implementation into the practice of the provisions of the Concept for the performance of state policy in the field of promoting the development of socially responsible business in Ukraine for the period up to 2030;
- Active use of business initiatives to form and implement socially significant programs in the region based on the development of social partnership;
- Harmonization and balance of interests of all stakeholders, not just local authorities and business;
- Non-admission of the practice of imposing social responsibility on business by regional authorities (coercion

to participate in the implementation of social, cultural, environmental regional/local programs);

- Use of financial mechanisms/tools to attract business to the implementation of social projects of regional/local importance;
- Creation of institutional conditions for enhancing partnership relations between business and government to implement priority regional social programs based on public-private partnerships.
- For the dynamic development of CSR at the regional level, taking into account the experience and trends of its development in the EU countries, it is necessary:
- The formation of a strategic vision by companies and the development of CSR strategies, harmoniously combining the achievement of strategic social, economic, and environmental goals;
- Standardization of the practice of presenting social reports, increasing their transparency and accessibility to interested parties (stakeholders);
- Fight against corruption, shadow economy;
- Setting terms for consideration of business investment proposals related to the initiation of social programs, strengthening control over this process;
- Development of incentives for businesses implementing social programs at the regional level;
- Further popularization of CSR in society using various means of communication.

The COVID-19 pandemic is making adjustments to CSR development; the priorities of social programs are changing. Territorial authorities and local governments, taking into account the prospects of cooperation with business, should be interested in long-term partnerships for the implementation of regional/local social projects and programs by supporting and stimulating/encouraging interaction, enhancing the integration of financial mechanisms and tools of socially responsible business (not only large, and medium and small) for the implementation of social programs based on the development of public-private partnerships. The introduction of European practices in Ukraine in implementing regional social programs based on public-private partnerships provides for the implementation of CSR programs agreed with the community, public control over their effectiveness and efficiency.

The content and amount of funding for projects and CSR programs that are implemented by businesses in the territory of their presence should work to implement the strategic and tactical goals and objectives of sustainable development of the administrative-territorial unit, be consistent with them, supplement/strengthen the potential (human, financial, material) of local communities, help to enhance their sustainability.

Literature:

1. About the concept of realizing state policy in the sphere of developing socially relevant business in Ukraine for the period up to 2030. (2020). *Order of the Cabinet of the Ministry of Finance of Ukraine*, Issued on 24 June, 2020.
2. Alas, R., Tafel, K. (2008). Corporate governance in Estonia. *Corporate Ownership and Control*, 5(1), 296-302.
3. Bayura, D.O. (2017). Developing corporate social responsibility in stakeholder support organizations. *Economic Journal of Lesya Ukrainka Eastern European National University*, 4(12), 39-44.
4. Belgium: CS EUROPE. (2020). *European Corporate Social Responsibility Business Network*. Available at: <http://www.csreurope.org/pages/en/enterprise2020.html>
5. Bikeeva, M.V. (2017). The experience of companies in the European Union in the implementation of corporate social responsibility. *Economic Development Research Journal*, 6.
6. Bowen, H.R. (1953). *Social responsibilities of the businessman*. New York: Harper & Brothers, 276.
7. Camilleri, M.A. (2017). *Corporate Sustainability, Social Responsibility and Environmental Management: An Introduction to Theory and Practice with Case Studies*. Cham, Switzerland:

- Springer Nature, 61-77. https://doi.org/10.1007/978-3-319-46849-5_4.
8. Camilleri, M.A. (2020). Strategic Corporate Communication in the Digital Age. Bingley, UK: Emerald
 9. Camilleri, M.A. (2020). The market for socially responsible investing: A review of the developments. *Social Responsibility Journal*. Available at: <https://ssrn.com/abstract=3552548>. DOI: 10.1108/SRJ-06-2019-0194.
 10. Carroll, A. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39-48.
 11. Catalog of companies' actions to combat COVID-19. (2020). Available at: <https://csr-ukraine.org/covid-19/>.
 12. Center "CSR Ukraine". (2018). Available at: csr-ukraine.org/wp-content/uploads/2018/10/CSR_2017_research-1.pdf.
 13. Chugunov, I.Ya. (2014). Long-term budgetary strategy in the system of economic cycling. *Visnyk KNTEU*, 5, 64-77.
 14. Corporate Social Responsibility 2016 Report. (2016). Available at: <http://www.cisco.com/assets/csr/pdf/CSR-Report-2016.pdf>. Access date: May 25, 2020.
 15. Corporate Social Responsibility 2019 Report. (2019). Available at: https://www.cisco.com/c/dam/m/enus/about/csr/csr-report/2019/_pdf/csr-report-2019.pdf. Access date: May 25, 2020.
 16. Crane, A. & Matten, D. (2004). *Business Ethics – a European Perspective*. Oxford University Press, 427-451.
 17. CWS Practices in Ukraine. (2019). Saprikinoji, M.K. (ed.). Center "Development of KSV", 152.
 18. Danshina, V.V. (2017). Foreign experience in implementing social responsibility of business. *Bulletin of Tomsk State University. Economy*, 40.
 19. Ermoshkina, O.V. (2015). Social responsibility of business and financial security of development of regions: what is the conflict of interest? *Economics Bulletin*, 1, 19-26.
 20. European Commission. (2018). Green Paper "Promoting a European Framework for Corporate Social Responsibility", Brussels. Available at: europa.eu/rapid/press-release_DOC-01-9_en.pdf.
 21. European Parliament. (2014). Directive 2014/95/EU of the European Parliament and of the Council. *Official Journal of the European Union*, November 15. Available at: <http://eurlex.europa.eu/eli/dir/2014/95>.
 22. Friedman, M. (1970). The Social Responsibility of Business is to Increase its Profits. *New York Times Magazine*, Paris, 356.
 23. Frolova, E.V. & Rogach, O.V. (2017). Municipal-private partnership in education: an infrastructural aspect. *Economic and social changes: facts, trends, forecast*, 10(1), 145-160.
 24. Green is the book of the European Commission about corporate social awareness. (2001). Brussels, Dated on July 15, 2001. Available at: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001-0366:FIN:EN:PDF,366>.
 25. Idowu, S.O. & Vertigans, S. (2017). *Corporate Social Responsibility: Academic Insights and Impacts*. Springer International Publishing. Available at: <https://ua-bok.lat/book/2868029/6d69d2>.
 26. Idowu, S.O. & Vertigans, S. (2017). *Stages of Corporate Social Responsibility: From Ideas to Impacts*. Available at: <https://rd.springer.com/book/10.1007/978-3-319-43536-7>.
 27. ISO 26000 Guidance standard on social responsibility. (2020). Available at: <http://www.iso.org/iso/news.htm?Refid=Ref1366>.
 28. ISO 26000:2010 Guidance on social responsibility. (2020). Available at: <https://www.iso.org/ru/standard/42546.html>.
 29. Izmailov, M. (2020). *The trend of corporate social responsibility: the mask first on the employee, the business is actively changing its strategy*. Available at: <https://news.ru/business/trend-korporativnoj-socialnoj-otvetstvennosti-masku-snachala-na-sotrudnika/>.
 30. Karpova, T.S. (2017). Social partnership is the basis for mutual spirit of business of the country. *Modern Economics*, 3, 69-77. Available at: <https://modecon.mnau.edu.ua/issue/3-2017/UKR/karpova.pdf>.
 31. Kolot, A.M. (2012) *Social responsibility: theory and practice of development*, (ed.). Monograph. Kyiv: KNEU, 501.
 32. Kolot, A.M. (2013). Corporate Social Responsibility: Evolution and development of theoretical views. *Economic Theory*, 4, 5-26.
 33. Kosinsky, P.D. & Yurzina, T.A. (2020). Formation of the mechanism of social responsibility of business in the context of the development of rural areas of the region. *Basic research*, 6, 65-69.
 34. Kravchenko, O. (2019). Public-private partnership as a mechanism for financing infrastructure modernization. *Baltic Journal of Economic Studies*, 5(1), 112-117.
 35. Krivous, V. (2016). Corporate social responsibility in the context of the form of partnership relations between the state, business and support. *Journal of the European Economy*, 15(2), 172-182.
 36. Kunz, R. (2013). Governing International Migration through Partnership. *Third World Quarterly*, 34(7), 1227-1246.
 37. Lazorenko, O. & Kolishko, R. (2008). *Collection of CWS*. Basic information about corporate social awareness. K.: Energia. Available at: <http://lpw.org.ua/files/content/CSRGuideprint12.05.08.pdf>.
 38. Levytska, S., Krynychnay, I., Akimova, A., & Kuzmin, O. (2018). Analysis of business entities' financial and operational performance under sustainable development. *Financial and credit activity: problems of theory and practice*, 25(2), 122-127. DOI: 10.18371/FCAPTP.V2I25.136476.
 39. Levytska, S.O., Akimova, L.M., Zaiachkivska, O.V., Karpa, M.I., & Gupta, S.K. (2020). Modern analytical instruments for controlling the enterprise financial performance. *Collection of scientific papers: Financial and Credit Activity-Problems of Theory and Practice*, 2(33), 314-323. DOI: 10.18371/FCAPTP.V2I33.206967.
 40. Liubkina, O., Murovana, T., Magomedova, A., Siskos, E., & Akimova, L.M. (2019). Financial instruments of stimulating innovative activities of enterprises and its improvements. *Marketing and Management of Innovations*, 4, 336-352. DOI: 10.21272/MMI.2019.4-26.
 41. Medvedeva, N.V. (2018). Participation of business in the social development of the territory: limitations and opportunities. *Economic Issues*, 6, 126-132. DOI: 10.32609/0042-8736-2018-6-126-132.
 42. Mishchuk, H., Bilan, S., Yurchyk, H., Akimova, L., & Navickas, M. (2020). Impact of the shadow economy on social safety: The experience of Ukraine. *Economics and Sociology*, 13(2), 289-303. DOI: 10.14254/2071-789X.2020/13-2/19.
 43. Nikiforova, O.A. & Mitrofanova, D.O. (2017). Business social responsibility concepts: initial concepts and classifications. *Saint Petersburg State University Bulletin. Sociology*, 10(2), 214-228. DOI: 10.21638/11701/spbu12.2017.206.
 44. Orlova, N.S. & Kharlamova, A.O. (2014). *Conceptual principles of corporate social responsibility in Ukraine*. Monograph. Donetsk.
 45. Osadcha, O.O., Akimova, A.O., Hbur, Z.V., & Krylova, I.I. (2018). Implementation of accounting processes as an alternative method for organizing accounting. *Financial and credit activity: problems of theory and practice*, 27 (4), 193-200. DOI: 10.18371/FCAPTP.V4I27.154194.
 46. Pakhomova, N.V. & Richter K.K. (2013). Corporate social responsibility and sustainable development: EU experience, specificity of Germany Bulletin of St. Petersburg University. *Economy*, 2, 30-48.
 47. Personnel portal of Ukraine. (2020). Employment rating 2019/2020. Available at: <https://hhcdn.ru/file/16886619.pdf>.
 48. Plášková, A. (2015). Společenská odpovědnost (PROČ - CO - JAK?). *Vědeckotechnický sborník ČD*, 391. Available at: <https://vts.cd.cz/documents/168518/195432/3905.pdf/514f65fe-7e57-463e-aa68-53afabeb89d8>.
 49. Poischuk, L. (2009). Corporate social responsibility or government regulation: an analysis of institutional choice. *Economic Issues*, 10, 4-22.
 50. Portna, O. & Iershova, N. (2020). Eco-management of organizations within the green economy system. *Acta Innovations*, 35, 81-94.
 51. Portna, O., Kachula, S., & Lysiak, L. (2019). *Social responsibility development in the conditions of globalization:*

financial flows focus. SHS Web of Conferences, 67, 06042. DOI: <https://doi.org/10.1051/shsconf/20196706042>.

52. Pritulyak, N.M. (2018). Social investment is a form of implementation of corporate visibility. *Finance of Ukraine*, 3, 63-74.

53. Reputation Capital Group. (2018). Global CSR Leaders 2018. Available at: <https://reputationcapital.blog/2018/10/naz-vany-globalnye-lidery-v-oblasti-kso-2018->

54. Rogach, O.V., Medvedeva, N.V., & Frolova, E.V. (2018). Restrictions on the development of social partnership between the authorities and the local community in modern Russian conditions. *Historical and socio-educational thought*, 10(3-2), 136-143. DOI: 10.17748/2075-9908-2018-10-3/2-136-143.

55. Ryabova, T.M. & Medvedeva, N.V. (2017). Foreign practices of organizing partnership between government and society: trends and problems. *Sociodynamics*, 4, 114-125. DOI: 10.7256/2409-7144.2017.4.22502.

56. Saprikina, M. (2019). *CWS Practices in Ukraine 2019*. Center "Development of CWS". K., 152.

57. Scholtens, B. (2006). Finance as a Driver of Corporate Social Responsibility. *Journal of Business Ethics*, 68, 19-33.

58. Schwartz, M. & Carroll, A. (2003). Corporate social responsibility: a three-domain approach. *Business Ethics Quarterly*, 13(4), 503-530. Available at: https://www.researchgate.net/profile/Archie_Carroll/publication/261827186_Corporate_Social_Responsibility_A_Three-Domain_Approach/links/54a17ab80cf267bdb902c00f/Corporate-Social-Responsibility-A-Three-Do.

59. Stakeholder Forum Research Report. (2015). Available at: www.stakeholderforum.org. Date accessed: July 20, 2020.

60. TOP 25 best CSR projects 2020. (2020). Available at: dsnews.ua/ukr/vlast_deneg/top-25-luchshih-kso-27072020-393543.

61. Troshin, A.V. & Morozova, I.A. (2012). From charity to social investment: foreign experience and Russian reality. *Modern trends in economics and management: a new look*, 17, 304-310.

62. Tsutsui, K. & Lim, A. (2016). Corporate Social Responsibility in a Globalizing World. *Business and Public Policy*. Cambridge: Cambridge University Press, 512.

63. UN Global Contract. (2015). OECD Guidelines for Multinational Enterprises United Nations Transforming our world: the 2030 Agenda for Sustainable Development. Available at: <https://sustainabledevelopment.un.org/post2015/>.

64. Visser, W. (2005). Revisiting Carroll's CSR Pyramid. *African Perspective*. Available at: <http://www.waynevisser.ru/articles/revisiting-carrolls-csr-pyramid>.

65. World Business Council for Sustainable Development. (2020). Available at: <http://www.wbcd.org/home.aspx>.

66. Yakymchuk, A.Y., Valyukh, A.M., & Akimova, L.M. (2017). Regional innovation economy: aspects of economic development. *Scientific bulletin of Polissia*, 3(11), Part 1, 170-178. DOI: 10.25140/2410-9576-2017-1-3(11)-170-178.

67. Yakymchuk, A.Y., Akimova, L.M., & Simchuk, T.O. (2017). Applied project approach in the national economy: practical aspects. *Scientific Bulletin of Polissia*. 2(10), Part 2, 170-177. DOI: 10.25140/2410-9576-2017-2-2(10)-170-177.

68. Yakymchuk, A.Y., Akimov, O.O., & Semenova, Y.M. (2017). Investigating key trends of water resources attraction into economic turnover. *Scientific Bulletin of Polissia*, 1(9), Part 2, 70-75. DOI: 10.25140/2410-9576-2017-2-1(9)-70-75.

69. Zahorskyi, V.S., Lipentsev, A.V., Mazii, N.H., Bashtannyk, V.V., & Akimov, O.O. (2020). Strategic directions of state assistance to enterprises development in Ukraine: managerial and financial aspects. *Collection of scientific papers Financial and Credit Activity-Problems of Theory and Practice*, 2(33), 452-462. DOI: <https://doi.org/10.18371/fcaptop.v2i33.207230>.

70. Zahorskyi, V.S., Lipentsev, A.V., Yurystovska, N.Ya., Mazii, N.H., & Akimov, O.O. (2019). Financial and administrative aspects of small business development in Ukraine. *Financial and Credit Activity-Problems of Theory and Practice*, 3(30), 351-360. DOI: <https://doi.org/10.18371/fcaptop.v3i30.179717>.

71. Zapatrina, I. (2019). Unsolicited Proposals for PPPs in Developing Economies? *EPPPL*, 15(2), 118-128.

72. Zavyalova, E.B. (2018). Corporate social responsibility in Europe. *Economics and Management: Problems and Solutions*. 3(2), 18-22. Available at: <https://mgimo.ru/upload/iblock/277/korporativnaya-socialnaya-otvetstvennost-v-stranah-evropy.pdf>.

Primary Paper Section: A

Secondary Paper Section: AH

THE SEMIOSPHERE OF THE ART OF THE ARTISTIC WORD IN UKRAINIAN STAGE CULTURE IN THE SECOND HALF OF THE 20TH – BEGINNING OF THE 21ST CENTURIES

^aNADIYA KUKURUZA, ^bNATALIYA MARUSYK, ^cOKSANA FEDORKIV, ^dSVITLANA VASIRUK, ^eHALYNA OLEKSIUK

^{a-c}Vasyl Stefanyk Precarpathian National University, 57, Shevchenko Str., 76018, Ivano-Frankivsk, Ukraine
 email: ^akukuruza.nv@gmail.com, ^bnatalia_marusyk@ukr.net,
^coksigen76@gmail.com, ^dsvitlanavasiruk@gmail.com,
^eoleksiuk.galina21@gmail.com

Abstract: The article deals with the semiosphere of artistic expression in the Ukrainian culture in the second half of the 20th – beginning of the 21st centuries. The author presents a semantic-semiotic analysis of its genre varieties and forms, traditional for this period's performance. Considering the two directions of the stage embodiment of non-dramaturgical material – that of a reader and an actor – the theatrical sign systems related to the artistic word are separated and systematized, their role and correlation with the text in the stage embodiment are determined. Theater and literature related to the latest technology in the arts have led to the search for innovative formats of the text's stage embodiment. It contributes to creating a radically new semiosphere of the art of artistic word, which has been increasingly asserting itself since the beginning of the 21st century.

Keywords: Actor-reader, Artistic word, Non-dramaturgical material, Theatrical sign, Tradition, Ukrainian stage culture.

1 Introduction

There is symmetry between the iconic systems of the artistic word's art (mainly on the literary stage) and the theater. Since the word is the main one for the specifics of performing (reading, reading-acting) non-dramatic text, the most important part of the creative process, including the stage embodiment, is carried out in the area of semiospheres of literary criticism and linguistics. At the same time, other iconic theatrical systems (gesture, stage movement (plastic), make-up, hairstyle, costume, props, scenography, light, music) are assigned the role of "sketchiness" [19].

The purpose of the research is to analyze the basic semiotic sign models of the art of the artistic word, which characterize the stage performance in the twentieth century's Ukrainian culture.

The review of scientific works gives grounds to assert that the problem of stage embodiment of non-dramatic text, its interpretation by the actor-reader should be analyzed and systematized through the prism of scientific works devoted to the issues of a theatrical sign.

2 Literature Review

Important for the study are the works of the literary critic, culturologist, and semiotician J. Lotman. He considered the problem of the significance of the text, which reveals it in the process of moving to the audience (viewer), "The relationship between text and audience is characterized by mutual activity: the text seeks to liken the audience to itself, impose its code system, the audience responds the same. The text seems to include the image of "his" ideal audience, the audience – "his" text" [11, p. 87].

German scholar K. Balme analyzes the dramatic text and its stage embodiment, pointing out that three textual levels should be distinguished: theatrical text (text original), the text of the play, the text of the play. Each text level creates a specific volume of values" [2, p. 120].

Thus, starting from the origins of the creative process and taking as a basis the text, the performer as an interpreter of the stage version of the literary basis goes through certain stages while changing its system of signs. It can be systematized in stages:

- 1) Internal visualization with a triple intention (actor-reader, actor-author, actor-performer) in traditional artistic performance without the use of extralingual and stage means of expression;
- 2) External (in combination with internal) – when used.

P. Pavi considers theatrical semiology as a method of text analysis or performance in the field of formal organization, dynamics and creation of meaning in the process of interaction between theatrical artists and the public [13, p. 451]. He believes that it is enough to understand "syncretism" as the use of various manifestations of its language with other semiologies (space, text, gesture, music) [13, p. 452].

The nature of the theatrical sign was studied by the Russian art critic I. Gubanova. She analyzed the works of leading French, Italian, English semiologists, thus updating the issues and expanding the methodological basis of domestic theater studies [4].

Polish historian of theater and literature T. Kovzan classifies the main sign systems used on stage and considered in the context of the study: word, intonation, facial expressions, gesture, stage movement (plastic), makeup, hairstyle, costume, props, scenography, light, music, the sound effect [9, p. 126].

Readers' performance remained popular until the 1980s and the second half of the twentieth century, which is confirmed by the multi-stage system of readers' competitions, which gradually collapsed at the same time as the Union's collapse.

Suppose we distinguish the sign systems inherent only in the reader's performance (voice, intonation, facial expressions, gestures, plastics). In that case, there are some studies by theorists and practitioners of the art of the artistic word, based on European and Russian scholars' previous experience. Among the Ukrainian authors of the twentieth century are D. Revutsky [15], M. Bazhenov [3], R. Cherkashin [5].

Polish historian and theorist of drama and theater, S. Swiontek, believes, "The theatrical sign is a consequence of mutual functionalization of heterogeneous semantic categories, and the most important role in the theater in its formation is played by the addressee, who is given an executive function. It consists in giving specific meaning to the signs transmitted through the theatrical message. Outside of this function, the theater as a cultural phenomenon does not exist" [17].

Among the latest theoretical studies in the field of semiotics, "Architectonics of theatricality" theater director, actor, theater theorist, semiotician I. Alexandrov believes that theater is a privileged semiotic object, even compared with language, it has absorbed many more components than any other art form [1, p. 4].

Researcher of Ukrainian drama, author of works on comparative literature L. Zaleska-Onyshkevych writes about the second life of literary texts on stage. Theoretically, the analysis of the literary text and its intertextuality deserves attention. The author also analyzes the interpretation of poetry and prose through the actor's embodiment [20].

Semantic-semiotic analysis of the tradition of the main paths of the genre of the art of the artistic word is partially analyzed in the dissertation of N. Kukuruza [10]. There is still no work devoted to the holistic study of the history of the formation and development of the art of the artistic word, in particular, its semiotic space both on the concert stage and on the scene.

3 Materials and Methods

The artistic word's performance in Ukrainian culture is traditionally divided into two types of stage embodiment: reading and acting, the beginning of the twentieth century were represented by artists of these different directions Alexander Zakushnyak and Vladimir Yakhontov. The experience of their performance was reconsidered and continued by Russian and Ukrainian actors-readers over the following decades. In addition to performing specific prose and poetic works, various genres

and art forms of the artistic word began: "evening of stories", "evenings of monologues", "evenings of actors", "theater of historical portrait", "literary evenings", "poetic theater", etc.

4 Results

The semiosphere of the reader's performance, first of all, includes the creation of a stage version of the text. The word and its implementation (mainly static communication with the viewer) has expressive means: facial expressions, gestures, costume, plastic, mise-en-scène, sometimes special hairstyle and makeup.

The author of the stage version of the word must be often the performer himself, and therefore he is assigned the role of interpreter of the text, the changer of the author's sign system. Zakushnyak notes, "I was the first to make literature on the stage a profession. I managed to find a completely complete form, constant, able to solve the style of a particular author through a combination of intonations and composition of the text, a form that has a special technique, which includes a long list of special techniques" [5, p. 37]. As for the text, T. Kovzan details such a process, noting that the word "varies depending on the dramatic genre, literary or theatrical fashion, the style of the play" [17, p. 132], which have a direct impact on the art of performance. In contrast to the dramatic, we should add that the art of the artistic word has signs of mobility. This is also its significance: the ability to respond quickly to various socio-political or cultural-artistic events.

V. Yakhontov had a slightly different approach to the embodiment of a literary text on the stage, different from the reader's performance. He synthesized the artistic word with other types and genres of art: primarily with theater and music. V. Yakhontov called for "thinking in the theater", sought to cultivate a sense of theater in the narrative form of a literary text. He substantiated and widely used the principle of contrasting construction of the program: alternation of poems and prose, poems and documents.

In the stage interpretation of the text, the performer puts a semantic sign as an expression of a certain thought.

5 Discussion

Here are some examples of working with the textbase of famous Ukrainian actors-readers.

Art critic, author, and performer of literary compositions Bohdan Kozak notes, "I have never read 'The Cherry Orchard Around the House' or 'I was thirteen'. But during the creation of the composition, I missed this topic. And it turned out that this is perhaps one of the best moments of poetic and musical composition. In the school textbook, which my peers and I studied, the poem 'My thirteenth past' ends with the lines:

"And we, jokingly, took other people's lambs to the water."

We take the academic publication, and there:

*"Nasty!... But still, as I recall,
That heart cries and aches,
Why the Lord did not let him live
Young age in that paradise.
He would die plowing in the field,
I would know nothing in the world.
I wouldn't be a fool in the world,
He did not curse people and God!"*

These lines have never been in a textbook. This is how I always find things that need to be understood" [6].

The iconic Ukrainian reader Anatoliy Palamarenko is also in a constant search for Kobzar's texts' meanings. Only recently, according to the great actor-reader, he found the right, logical emphasis in the "Testament", "Earlier, without delving, he intuitively emphasized the word 'blood'. And now I think, why

"blood" and not "enemy"? I always try to find the main word, and only then add emotional nuances" [8].

Thus, the final stage interpretation of the word is formed at different levels of the system of signs (the field of linguistics and literary studies), starting from material choice to its embodiment.

Following the systematization of T. Kovzan, we turn to the intonation – melody, rhythm, tempo, emphasis, which are born in the subtexts of the performer, creating a variety of signs.

Thus, O. Vyshny's "Fair", a cult work in A. Palamarenko's repertoire, is full of various vocal modulations, tempo changes, and texts reduced to pater. The length of vowels acts as a sign of the breadth of the soul of the Ukrainian people.

The system of signs includes dialect. In particular, the actor Yuriy Brylynsky performs works by V. Stefanyk, written using Pokut dialectal features (performance-dedication "Ancient Melody").

Actress-reader Oleksandra Lesnikova gave weight to tempo-rhythm speech.

Here is an example of how Lesnikova changed the structure of language in the composition of V. Kataev's novel "The Grass of Oblivion", which is about the funeral of V. Mayakovsky.

Prose lines from the original source, "The Guard changed silently near the agreement. I don't remember if there was any music. Apparently, it was. But she could not silence the silence. One by one, his readers climbed the steps from the courtyard. They walked in a chain one after another – weeping, dead – past narrow vases with long, pale greenhouse roses..." – performed by O. Lesnikova. This text sounded like a poem, evoking associations of grief and rhythms of mourning music:

*"Near the agreement, he changed Guard silently.
I don't remember if there was any music.
But she could not silence the silence.
We climbed the stairs from the courtyard.
One by one, his readers...
They walked in a chain - crying, dead.
Past narrow flowerpots with long,
Pale greenhouse roses..." [16, p. 75–76].*

Such an original version in the stage version also has semiological significance. These options may acquire a purely aesthetic value or, as in the above examples, have a semiological significance.

Let us move on to other means of expression of the artistic word's art, which have an auxiliary function. O. Zakushnyak writes about the gesture on the literary stage separately, "The gesture of a pop narrator is sharply different from the gesture of an actor... The common thing between an actor and a pop singer is only the alphabet of expressive movement" [5, p. 34].

So the principle of gesture in the classical embodiment of the artistic word is primarily because the narrator works without accessories. Sometimes, there are many characters in his story, and there are few means to describe them. Therefore, O. Zakushnyak equated the gesture to a "silhouette image", emphasized its fleetingness, sketchiness, argued that the performer's gesture should be "strict and stingy". Also, the gesture on the stage should be most closely related to the style of the author whose work is performed, and the nature of this work: "Americanized" in the performance of Twain, "tailcoat salon" – in the work of France, wide, allowing the use of dance rhythms, – in Gogol's "Taras Bulba". He claims the same about facial expressions [5, p. 35].

The famous Ukrainian actor-reader R. Iytsky followed these rules in the composition "A Word about the Kobzar", "He very sparingly reproduces the poet's external features. Semi-gesture, but expressive, an element of movement, but characteristic, complete, inherent in this character" [16, p. 35].

Actress-reader Lyudmila Dzhigul professed the reader's performance, "Only an expressive voice, various facial expressions and sometimes stinky, barely noticeable, supporting the main idea gesture" (for example, Aisha and Mohammed) [16, p. 138].

An essential component of the art of the artistic word is also the *mise-en-scène*. Most often, its change means a change in the opinion of the author of the work. It is good when the author prompts, sometimes simplifying the task when the *mise-en-scène* specified in the content is concretized in mind [18, p. 156].

S. Klitin notes that in "Theater of One Actor", the performer is free from the need to reproduce some (predominantly domestic) external actions, but he has to perform them by force of imagination. In his imagination, he often has to do a chain of physical actions missed due to lack of stage site of the necessary objects and things. The actor's imagination carries an auxiliary load – imaginary moments of life alternate with real physical action moments on stage. Therefore, the *mise-en-scène* and signs of external character in the reader's theater can be used only very carefully, in a reasonable dose. The *mise-en-scène* and gesture become here the means of expression much brighter and more powerful than in the ordinary theater. In the reader's theater, every step, every turn of the head, every wave of the actor's hand acquires a special, more significant meaning [7, p. 60].

V. Yakhontov defines the static position as a *mise-en-scène*, "Of course, it is not easy to "live in a pause". For an actor, the static position is always difficult; inviolability as a *mise-en-scène* is a very subtle acting state that requires, I would say, virtuosity. In the inviolability, the viewer does not see the *mise-en-scène*. It isn't easy to convince him of this. This requires a great inner life of the actor, a precise task, a clear vision, i.e., perfect mastery of the technique of stage behavior" [18, p. 399].

Thus, the *mise-en-scène* in literary reading is the most stinky but also the most expressive and accurate sign. Its main components are word and movement, although it is considered in the context of "language of feelings".

Consider the costume sign in the art of the artistic word. Here, as a sketch in a gesture, you should also avoid busting. For example, a detail of an actor-reader's costume is a "bow, tie, vest, unbuttoned or buttoned jacket. All these details "work" on the image. Autumn – raised collar..." [7, p. 40].

Let us take into account the broader aspect of performance. Ukrainian authors' works, especially T. Shevchenko, I. Franko, L. Ukrainka, readers traditionally perform in costumes with elements of costume that contain authentic features of the Ukrainian people. Actress-reader Neonila Kryukova, whose almost repertoire consisted of works by Ukrainian authors, also always performed in Ukrainian costumes.

Actress Raisa Nedashkivska performs the reader's monologue "Forest Song" in Mavka's costumes created for her by famous artists Lyudmila Semikina and Lyudmila Nagorna.

Props in the art of the artistic word are used as little as possible. It can be a book, letters, a cane, a fan, a shawl, etc. Props in the composition do not acquire the meaning of everyday things, as in a dramatic performance. It carries a deep image, a certain meaning, generalization, symbol, sign. The props serve as a reinforcement and a kind of illustration to a particular moment of the story. In the monoplay, each emerging object acquires hypertrophied symbolism.

V. Yakhontov's use of various objects of props is indicative, "Create a number of additional representations. It was necessary to assure the spectator that I was not raising a stick, but a pistol of Dantes, who killed Pushkin, that the suitcase was a coffin in which the poet's body was taken to the village of Mikhailovskoye. And even my leather gloves fall on the suitcase with thud like lumps of earth in the grave. The audience was convinced by my faith in these transformations" [18, p. 164–165].

The idea of one of V. Yakhontov's performances included to pick up a real object, to extract an image from it, and not one, but a number. The umbrella could be a carriage wheel or a shield. The blanket is an old overcoat, a sled slide, a cloth from which the hero cuts a new overcoat, and so on. In this "game with a thing", he used a generally simple associative principle, which corresponded to the poetics of the play [18, p. 178–224].

Ukrainian actors-readers R. Ivitsky, B. Chernov, and S. Maksymchuk combined similar performance methods on the stage in literary compositions. As V. Rusanov notes, "*Literaturnaya Gazeta* wrote about the subtle and multifaceted play of one of them in the literary composition. A "Word about a Kobzar", "Sometimes Ivitsky's reincarnations seem like a miracle. We have just seen Shevchenko – old, tired, sick, but unbreakable, ready to fight. And here, the artist is reincarnated. No, he doesn't change his clothes; he doesn't even hide his face under a mask. He just slowly pulls on his gloves – the timbre of the voice and intonation change. And we can see in front of us a gendarmier officer, a soulless careerist, a "servant of the fatherland"" [16, p. 36].

In the early 70's of the twentieth century, actor-reader S. Maksymchuk, together with the director M. Merzlykin prepared a dramatic poem by Lesya Ukrainka "In the Field of Blood", which became a notable phenomenon on the Ukrainian literary and concert stage. "The text is read simply, without any theatrical aids. Only a perch stuck in the low trunk of a felled tree in the middle of the stage was associated with Judas's hoe to work his field. He threatened his former mentor, the Messiah, menacingly and angrily with a hoe. Remembering Him, he angrily attacks the old pilgrim. He dug the ground with a hoe, and he used it to work in his own field, "without stretching, without wiping sweat..." Leaning on the hoe, he is thinking sometimes" [16, p. 163].

A small sham thing, a detail, became a real creative discovery. It was also etched in the visual memory: a helpless pilgrim contrasted with the strong Judas' image with a stick in his hand.

Semiology in the field of music is also an auxiliary means of expression. A striking example of the word combined with music was the protest speech of 1981 when the actress-reader Neonila Kryukova and the bandura player Halyna Menkush performed a solo performance, "Marusya Churai", which was banned by the Soviet authorities.

Actress R. Nedashkivska performs Lesya Ukrainka's "Forest Song" (directed by M. Merzlykin) against the background of M. Skorulsky's ballet of the same name.

5.1 Ukraine's Contribution to the Art

Modern realities also dictate a change in the format of the readers' competitions themselves. Thus, in 2011 in Ivano-Frankivsk, the Institute of Arts of Vasyl Stefanyk Precarpathian National University and the family of Honored Artist of Ukraine, Oksana Zatvarska launched and every two years held a "Competition of young actors of Oksana Zatvarska" (later - "named after Oksana Zatvarska").

In 2019, the All-Ukrainian competition of professional readers named after Ivan Franko (existed in this format in 2006-2019), the renewed team of NSTDU transformed the format of "readers" into a competition of "young actors". The idea for the changes arose to expand the performing horizons, which allows participants to present a micro-performance in the competition.

Among the most eloquent speeches in the context of the study should be noted the performance of V. Symonenko's short story "Kryvda" by the actor of the Kyiv theater "Actor" Peter Rusayenko (rollerblading), which modernized and "refreshed" the content of poetry, because the theme of Ivas – unfortunately, has not lost relevance [11]. Similarly, the artist of the conversational genre of the Ivano-Frankivsk Regional Philharmonic named after Ira Malanyuk, Olga Kozhushok in "Hutsul Wedding" M. Vlad combined auditory (voice

modulations reproduced the voices of guests, hosts, young men, sang kolomyyki, also shameful) and visual (plastic, dance elements) Hutsulka", "Arkan", a stage costume stylized in Hutsul costume) components, thus giving the performance of the recognizable traditional Hutsul color. To modernize the ancient mountain traditions, the singer performed kolomyyki in the rhythms of rap and replaced the carbatinae with sneakers.

Changing the format of competitions from reading to acting, the predominance of acting incarnation of non-dramatic material proves that "the art of reading art is undergoing a stage of transformation: the technique of reading skills and language skills of the actor converge" [16].

Competitive auditions (All-Ukrainian competitions of professional readers named after R.O. Cherkashin, named after Ivan Franko, named after Lesya Ukrainka) convince: the predominance of "acting" approaches is confirmed in work on literary material. At the IV All-Ukrainian competition of readers named after R.O. Cherkashin (Kharkiv, 2010), actress of the Kharkiv State Academic Theater named after T. Shevchenko Oksana Cherkashina won the Grand Prix. Her speech was difficult to build. To visualize the word in an effort to reveal the fate of Mexican artist Frida Callo, she was helped by theatrical means: props, plastic, elements of dance. In essence, it was a small one-act play, completely completed in its form. It testifies to the palm of supremacy in the direction of theatricalization of the artistic word as a natural transformation of performance in the modern art space.

Combining the components of theatrical sign systems in the interpretation of poetic texts, actress Oksana Cherkashina actively uses specific plasticity of Latin American dance, which visibly determines the text's figurative structure, visually expressing its code. It is not about the usual text code as a key that unlocks the viewer's imagination, and the viewer "sees" the picture, not a linear formula for the manifestation of the word – indirect visualization: understanding it by different visible and invisible streams – sensory, fantasy – thanks to the light, music design, applied costume details (hat, jacket) and, most importantly, plastic drawing role. This play, having a concise stage life, nevertheless revealed the postmodern search for the embodiment of the genre and influenced its further development among the artists involved in it.

6 Conclusion

The art semiosphere of the artistic word in the Ukrainian culture in the second half of the 20th – beginning of the 21st centuries, which is considered on the example of professional actors-readers' work, was based on the theoretical work of Russian actors O. Zakushnyak and V. Yakhontov, and thus followed their methodology as a tradition.

In the genre of the art of the artistic word, two directions remain the academic style of performance used by the actor-reader and the theatrical performance of literary material, where the word is a carrier not of information but action.

The prospect of further study of the art semiosphere of the artistic word is seen in the following:

- 1) The art of the artistic word in the collective practices of the twentieth century;
- 2) The latest technologies in the field of arts and clip thinking, as a sign of a different worldview, contribute to the creation of a new semiosphere in the area of art of the artistic word, which also needs to be understood and systematized.

Literature:

1. Alexandrov, I. (2019). *Architectonics of theatricality. Semiotics of theatrical performance*. Translated from English by E.A. Pomelyaiko. Kh.: Publishing House "Humanitarian Center", 212.

2. Balme, K. (2008). *Introduction to theater studies*. Lviv: VNTL-Classic, 270.
3. Bazhenov, M.M. (1940). *Expressive word*. Kyiv: Soviet School, 162.
4. Gubanova, I. (1993). *About the nature of the theatrical sign (semiotic concepts): the author's abstract of the dissertation of the candidate of art history*. Moscow: Russian Academy of Theater Arts (GITIS), 26.
5. Cherkashin, R.O. (1989). *Art word on stage*. Kyiv: High School, 327.
6. Khudytsky, V. (2008). *Actor Bohdan Kozak, "Secretary of the Central Committee once deleted from Shevchenko "lyakhi" and wrote "ladies""*. Available at: <http://www.zankovetska.com.ua/interview/725.htm>.
7. Klitin, S.S. (1968). *Director and reader: from the director's work experience*. Leningrad: Art, 98.
8. Konstantinova, K. (2009). One in the "Word" is a warrior. Anatoliy Palamarenko: "And what is it with our Ukraine?" *Mirror of the week*, 24. Available at: https://dt.ua/SOCIETY/odin_u_slovi_voyin_anatoliy_palamarenko_i_scho_zh_to_take_z_nashoyu_ukrayinoyu.html.
9. Kovzan, T. (2013). *Sign, text and listener in the theater. Theater. Theater: history, theory, practice*. Collection of articles, (Vol.1, Dramat. Vol. 2, Theater). Selected and processed by Janusz Degler. Translated from Polish. Wrocław – Lviv, 121–155, 204.
10. Kukuruz, N.V. (2016). *Embodiment of literary composition in Ukrainian stage art: genre and formative specifics, historical dynamics*. Abstract of the dissertation of the candidate of art history: 17.00.02. Kyiv: National Academy of Sciences of Ukraine, Institute of Art History, Folklore and Ethnology named after M.T. Rylsky, 20.
11. Lotman, Yu.M. (1999). *Inside the thinking worlds. Human - text - semiosphere – history*. M.: Languages of Russian culture, 464.
12. National Union of Theater Actors of Ukraine. (2019). *14 pages of the All-Ukrainian competition of young actors named after Ivan Franko*. Available at: <https://nstdu.com.ua/publication/14-storinka-vseukrayinskogo-konkursu-molodih-aktoriv-ivana-franka/>.
13. Pavi, P. (2006). *Dictionary of theater*. Lviv: Ivan Franko Lviv National University Publishing Center, 640.
14. Prokopova, N.L. (2008). The value aspect of the stratification of stage speech culture. *Bulletin of Tomsk State University*, 310, 41–48.
15. Revutsky, D. (2001). *The living word. Theory of expressive reading for school*. 2nd reprint. Lviv: Ivan Franko National University of Lviv, 200.
16. Rusanov, V. (1974). *Masters of the living word*. Kyiv: Art, 176.
17. Sviontek, S. (2013). *Sign, text and listener in the theater. Theater. Theater: history, theory, practice*. Collection of articles (Vol.1, Dramat. Vol. 2, Theater). Selected and processed by Janusz Degler. Translated from Polish. Wrocław – Lviv, 156–163, 204.
18. Yakhontov, V.N. (1958). *Theater of one actor*. Literary editing by E.E. Popova, introductory speech by I.L. Andronikov. M.: Art, 455.
19. Zakushnyak, A.Ya. (1984). *Evenings of the story*. M.: Art, 343.
20. Zaleska-Onyshkevych, L. (2009). *Text and game. Modern Ukrainian drama*. L.: Chronicle, 472.

Primary Paper Section: A

Secondary Paper Section: AL

WORLD MODELS OF DUAL EDUCATION AND FEATURES OF THEIR FUNCTIONING

^aOLHA KRAVCHENKO, ^bTETIANA STAROVA, ^cRADION NYKYFOROV

^{a,b} Kryvyi Rih Pedagogical University, 54, Gagarin Ave., 50086, Kryvyi Rih, Ukraine

^c Mykhailo Tuhan-Baranovskyi Donetsk National University of Economics and Trade, 16, Tramvaina Str., 50005, Kryvyi Rih, Ukraine

email: ^agluschenkoo@ukr.net, ^bk_chemistry@kdpu.edu.ua, ^cnykyforov@donnuet.edu.ua

Abstract: One of the modern education tasks is to provide the production sector with qualified personnel that is competitive in the labor market. Despite the high level of theoretical knowledge of the graduates of higher educational institutions, most of them have an insufficient level of formation of practical skills and abilities. Due to the lack of an effective system of interaction between "state-educational institution-enterprise", graduates' level of training does not always meet employers' requirements. This is one of the reasons for the low employment rate of graduates. In this regard, there is a need to introduce such innovative forms and approaches to organizing the educational process that would increase students' level of activity, create the conditions for their self-organization, professional orientation, self-development, and integrate theoretical knowledge with practical skills and abilities. The article reveals the essence of modern models of dual education and justifies introducing a dual form of education or its elements in higher education. The analysis of each of the indicated models was carried out.

Keywords: Dual education, Education development, Innovative forms of education, Pedagogy, Training system.

1 Introduction

There is a particular interest in the dual training system [8]. Vocational education has never been conceived without a connection with the production sphere, without a certain way of organized practice [19].

A clear distribution of responsibilities characterizes the organization of the dual system of vocational education. The main role in the field of vocational education within the dual system belongs to enterprises, that concludes an agreement with each student separately, specifically allocate the funds for the training of instructors, the mentors who provide the educational process at the enterprise, draw up an individual training plan for each student for the entire duration of the educational program, providing the practical training at the enterprise and theoretical training at a vocational school. The enterprise bears general responsibility for the student [25]. It controls the student's attendance at the school, successes under the program, and organizes the final certification (certification of qualifications) in the chamber of commerce, industry, or crafts.

Vocational schools perform a supporting function – theoretical training is carried out in them [10]. As a rule, in the dual education system, students attend an evening vocational school once or twice a week, where they receive mainly theoretical and practical knowledge related to their profession; also, they attend classes in general subjects, such as economics, social studies, and foreign languages. Systematic training in a vocational school is a necessary addition to technology-oriented training in the enterprise.

There are also professional schools with full-time education. In this case, they provide students with an internship at the enterprise or practical training in the Centers of Competence, and sometimes the practical training is carried out at the workshops of the professional schools themselves. As a rule, these are those students who, for some reason, could not conclude a contract with a particular enterprise; often, they are the so-called "difficult" teenagers from disadvantaged families [21]. At the same time, a full-time vocational school may be attended by pupils who have not completed a full secondary education (it is compulsory in the dual system of education) and/or whose profession requires reaching the age of majority [23]. In this case, the enterprises are interested in students receiving full secondary education during the year and then have been studying at the enterprise. As already noted, professional

schools carry a socializing, cultural and educational function. Pupils (students), while visiting a professional school, have an opportunity to participate in amateur performances, sports competitions, excursions, and foreign trips.

The third possible participant in the training process is the Competence Center [9]. This is a fairly common case when a student receives the program's theoretical part in a professional school, initial professional skills in the Competence Center, and basic practical training in the enterprise. In this case, the number of weeks spent in the Competence Center decreases every year of training in favor of the enterprise.

2 Literature Review

Socio-economic changes in modern society require such transformations in the higher education system that able to improve specialist training quality [13, 14, 15]. It is worth agreeing with the opinion of academician N. Nichkalo, who believes that "each stage of society's development has its socio-economic problems. Their solution requires new approaches that take into account the dynamics of changes in the life of various social systems" [22, p. 136]. One of the conditions for the modernization of higher education in Ukraine is the strengthening of cooperation between educational institutions and the production sector (enterprises, organizations). That is, there is a need to create a modern pedagogical model for training specialists in accordance with the requirements of employers, that is, with real production conditions. One such model is the dual form of education.

The professional skills and abilities should be formed in the conditions of a real production process [20]. We believe that the introduction of the elements of the dual form of education is the pedagogical innovation that allows us to combine the theoretical and practical, audience and distance components of the educational process.

According to the UNESCO International Standard Qualification, dual education is "an organized educational process combining part-time employment of a student at work and part-time education in the university system" [29].

The dual learning system is the most common and popular in society, among young people, and professional education trajectory in Germany. In no country in the world has it been possible to repeat the German dual system itself [25].

The German dual system, its popularity, stability, and efficiency are based on centuries-old traditions and deep philosophical roots. In the very distant past, impoverished Germany, which was exhausted by the thirty-year war, had to find an instrument of competitiveness with England and France in order to survive. And the tool began to be built on the basis of studying the best ideas of neighboring European countries and their own traditions.

The idea of an "industrial school" as an association of adults where children can learn based on the principle of combining mental and physical productive labor [22].

The idea for high-quality familiarization of children with crafts is that there is a need for full days of practice several times a week [24]. Now, this is one of the main elements of the German dual system – two days of theoretical training in a vocational school and four days of practice at the workplace at the enterprise [25].

The idea about the self-sufficiency of the manual labor of children for the scientist himself ended in collapse – the children were too small by age and the school organized by Pestalozzi fell into decay. However, in modern Germany, the balance between a scholarship to students at the enterprise and the quality of their

work from the second year of study of three, allows enterprises to recoup their tuition costs.

The dual system has grown from the consistent development of the best ideas in pedagogy and economics, aimed at solving the problem of training qualified personnel as the basis for the competitiveness of a country [27]. The quality and well self-sustaining labor force become the key to the prosperity of the State [1]. This goal forced the search for new methods of education, combined with the efforts of enterprises, schools, and state authorities.

The acquisition of knowledge through personal observations, personal experiments in the process of their work is something that is completely not taught during education or, at best, what they look at as something secondary [18]. This is because they still stand on the point of view of school science and "see the main task of education in teaching", wrote the German scientist Hoisinger back in 1798. As I.G. Fichte considered, not the knowledge itself, but behavior following the knowledge and the activity determines the value of a person. These ideas are seen in the modern principles of the German dual system "learning through action", "learning through the process".

For example, Siemens's modern training center uses the project method as its main activity. Students from the second semester of the first year have already completed projects in subgroups. They are given certain funds for the independent purchase of materials, and these expenses need to be calculated, justified. They can independently complicate the task and find ways to solve it while using computer programs (for example, drawing – CAD), programming since the work requires operations on software-controlled machines. Students receive advice in physics, mathematics, and chemistry if it is needed. They are highly motivated to learn, as they need effective mastering of theory to solve a general practical problem. They themselves prepare all the project documentation, including drawings, calculations, performance reports, and presentations.

Meaningful action is important, which leads to a qualitative result due to the conduct of a high-quality process of the activity [17]. In German traditions – craft guilds, associations of people of the profession, transferring their skills from generation to generation, people of entrepreneurial, they are able to conduct their business from the purchase of raw materials and tools to the sale of finished products; people who jointly solve the problems of developing the profession, preparing their own shift. The craftsmen in Germany were considered the foundation on which all classes hold, hence the special respect for them in society, the pride of artisans for belonging to the profession. The concern about the collapse of this foundation due to the development of manufacturing, where the worker performed only one recurring function, was expressed in the works by K. Marks and F. Engels. Despite the fact that they have never written any works on pedagogy, their idea of a harmoniously developed person was picked up not only in Germany but also in many other countries. It was one of the leading ideas of Soviet pedagogy.

3 Materials and Methods

We analyze the features of the functioning of various models of the dual form of education:

1. Duty pattern. Students are trained according to the scheme: the theoretical cycle of training, the acquisition of theoretical knowledge, elementary skills and abilities takes place in an educational institution, and the formation of complex skills and abilities – at the workplace. University (theoretical) education periods alternate with practical training periods at the enterprises. This dual education model strengthens the practical training of university graduates.

2. Dual consortium model. This model includes a theoretical (remote) part of the training, based on Internet technologies and a practical component, implemented in production. Theoretical training takes place in the evening, obtaining practical skills and abilities in the workplace during the day. The implementation of

such a dual education model allows a significant reduction in the length of study.

3. Higher education is integrated with professional activities. The indicated model of dual education allows specialists with professional education, who have been working at the enterprise for many years in any specialty, to receive higher education in a certain direction. Training, according to this model, provides for the retraining of specialists in related specialties, ensures the continuity of the educational process.

4. Sandwich education – provides for the alternation of periods of theoretical and educational-industrial (production) training. The theoretical part of such training takes place in an educational institution, while the educational-production or production part takes place in dual enterprises, institutions or organizations. Sandwich education is an innovative form of study, mainly at the undergraduate level, "the educational process is carried out for four years. Of these, a student has been studying at a higher educational institution for three years, one year at a university in another country, or interns at an enterprise or firm" [10].

Alternation of study periods is practiced in educational institutions around the world [28]. In particular, in the UK and France, there are "sandwich courses." Two years of study at the university alternate with a year of professional practical training at work, then a year again of theoretical study at the university, which alternates with industrial practice.

5. Co-operative learning, which is widely practiced in educational institutions in the USA and Canada. The training of specialists in this dual education model determines the cooperation of an educational institution and a company or enterprise where the practical component of the training takes place. The number of companies or enterprises that are dual partners of an educational institution can reach several thousand. This model of dual education has gained wide recognition in the USA, Canada, and France [9].

Co-operative education was introduced in Germany as a model of learning, integrated with work. The goal of *Berufsakademie* was to consider the implementation of the traditional German system of dual education in higher education [6].

4 Results

The objectives of each of the indicated models of dual education are to eliminate the shortcomings of traditional education, to bridge the gap between the theoretical and practical training of future specialists, to improve the quality of training of student youth, taking into account the requirements of employers and leading trends in the labor market [28].

Among the expected results of the implementation of the indicated models of the dual form of higher education can be noted:

- Development of a system for forecasting the needs of the labor market for skilled personnel [7];
- Co-financing of education by the State and enterprises [16];
- Development of a system of independent assessment of the quality of training of graduates;
- A significant increase in the quality of the educational process;
- Development of new forms of education.

Now, in Ukraine, events are being held to introduce dual models of obtaining education in a bachelor's degree at a higher school (sandwich education, duty model). The effectiveness of the implementation of these dual education models depends on forecasting the needs of the labor market in specialists of certain specialties, ensuring the training and retraining of teachers of a higher school, and developing the system of professional self-determination of students.

5 Discussion

We believe that the main task of introducing the dual form of education or its elements is the integration of the theoretical and practical components of the educational process to increase the competitiveness and quality of training of future specialists.

The need to introduce a dual form of higher education or its elements in higher education is due to several factors:

- Lack of motivation in the modern education system to develop practical skills in the labor market [1, 3];
- Limited possibilities of the practical component of the educational process [12];
- Lack of uniform requirements for the competence of graduates by higher education institutions and employers;
- Separation of educational institutions from the production process;
- Lack of effective mechanisms for integrating educational institutions into relations with enterprises, organizations, and firms.

That is, the dual form of obtaining an education is interconnected with the trends in the development of society and the needs of the labor market in highly qualified personnel [5, p. 284].

The combination of theoretical training with the practical activity of students in the workplace is not an innovation. Institutions of higher education for many countries of the world (Germany, Austria, France, the Netherlands, the USA, Poland, Kazakhstan, and Canada) dominate the practical component of the educational process.

By analyzing the features of dual educational models in different countries of the world and the positive experience of their functioning, it is possible to form the theoretical foundations for increasing the competitiveness of the higher education system:

1. Integration of the theoretical (formal) component of the educational process in the institution of higher education and the practical (non-formal), which is happening at the enterprise. Improving the innovation activities of higher education institutions through the introduction of elements of duality;
2. Optimization of the structure and activities of higher educational institutions by the requirements of the labor market and its dynamic changes;
3. Assessment of competencies of graduates according to the requirements of potential employers;
4. Improvement of financial and economic mechanisms in higher education institutions;
5. Ensuring continuous professional self-development and self-improvement of enterprise specialists through interdisciplinary knowledge acquisition during advanced training.

Today, it is necessary to form a wide range of mechanisms for cooperation between business and educational institutions so that future specialists can obtain the necessary skills directly at enterprises, and those who are already working can improve their qualifications, change their profession, and the sphere of activity if necessary. We need to think about how to revive the institution of mentoring. Many of those who work successfully in production today have already passed this school, and today we need the modern forms of the experience transfer at the enterprises.

It is not someone's corporate or private task to make training for highly skilled workers, for example, the engineering personnel for the real economy [11]. It is a national necessity, one of the main conditions for a significant increase in labor productivity, and this is one of the key development tasks. The dual education system involves the co-financing of job-specific training programs by commercial enterprises, which are interested in skilled personnel and regional authorities, which are interested in economic development and improving the living standards in the region.

6 Conclusion

To conclude, it should be emphasized that the main elements that together give a dual system are difficult to separate from each other and require balanced, thoughtful decisions from top to bottom [4]. The system is based on the philosophical relationship of goals and the tools for their achievement, where, it would seem, the obvious pragmatism turns into a concern for a person.

The strategic goal is the competitiveness of the economy, diversification, and high quality of products is supported by the historically established idea of developing the middle class [6], skilled and entrepreneurial workers, as the basis of statehood and stability. To achieve the goal, the necessary tools are built. At the management level, there is collegial decision-making and the division of functionality. It needs to ensure the quality of training results between the authorities, enterprise, and center of competence, professional school, chamber of commerce, and industry. Also, a well-designed and developed system of vocational guidance and professional self-determination is needed, as well as the following points:

- Ensuring scientific and methodological support of the educational process at all its stages;
- The formation of general didactic principles of training through action and process, based on the meaningful performance of work tasks, which provides a qualitative result of professional activity;
- Attention to the aesthetics of labor, its conditions (from the workplace to the appearance of the worker);
- Observance of principles of independent assessment of the learning results of both students and teachers.

Special attention to the institution of mentoring: on the one hand, high requirements for competencies enshrined in official documents at the federal level, on the other hand - ensuring a sustainable positive image, prestige in society, and career growth.

The study of international experience in dual education models' functioning makes it possible to determine the most promising ways to integrate the domestic education system, the labor market, and production.

The introduction of the dual form of higher education forms and improves society's productive forces, ensure the development of the education system, exports of educational services, and update the accumulation of knowledge and skills of students [2].

Literature:

1. Aasebo, T.S., Midtsundstad, J., & Willbergh, I. (2015). Teaching in the age of accountability: Restrained by school culture? *Journal of Curriculum Studies*, 49(3), 273-290. DOI: <https://doi.org/10.1080/00220272.2015.1072249>.
2. Abashkina, N.V. (1998). *Principles of development of vocational education in Germany*. A monograph. Kyiv: Higher School, 207.
3. Aini, N.A., Sunardi, S., & Sunardi, H. (2017). Student's Mathematics Creative Thinking Skills in Terms of Logical Mathematical Intelligence. *International Journal of Science Research and Management (IJSRM)*, 5, 6930-34. DOI: <https://doi.org/10.18535/ijrm/v5i9.01>.
4. Apergis, N. (2018). Education and democracy: New evidence from 161 countries. *Journal of Economic Modelling*, 71, 59-67. DOI: <https://doi.org/10.1016/j.jeconmod.2017.12.001>.
5. Astakhova, V.I. (2006). *Continuing education in the context of educational reforms in Ukraine*. A monograph. Kharkiv: Publishing house of NUA, 299.
6. Darbi, W. (2012). Of mission and vision statements and their potential impact on employee behaviour and attitudes: The case of a public but profit-oriented tertiary institution. *International Journal of Business and Social Science*, 14(3), 95-109.
7. Denig, S. (2004). Multiple intelligences and learning styles: Two complementary dimensions. *The Teachers College Record*.

- 106(1), 96-111. DOI: <https://doi.org/10.1111/j.1467-9620.2004.00322.x>.
8. Fatimah, M. & Utama, A. (2020). Religious culture development in community school: A Case Study of Boyolali Middle School. *Central Java, Indonesia*, 8(2), 381-388. DOI: <https://doi.org/10.18510/hssr.2020.8243>.
9. Göhringer, A. (2002). University of Cooperative Education. Karlsruhe: The Dual System of Higher Education in Germany. *Asia Pacific Journal of Cooperative Education*, 3(2), 53-58.
10. Grigorieva, N.V. & Shvets, N.A. (2016). A model for training specialists in a dual learning environment. *Modern problems of science and education*. Available at: <https://science-education.ru/ru/article/view?id=25763>.
11. Grow, G. (1995). *Writing and the Seven Intelligences*. Dated on 14 November, 2015. Available at: www.bookzz.com.
12. Gul, R., Kanwal, S., & Khan, S.S. (2020). Preferences of the Teachers in Employing Revised Blooms Taxonomy in their Instructions. *SJESR*, 3(2), 258-266. DOI: [https://doi.org/10.36902/sjesr-vol3-iss2-2020\(258-266\)](https://doi.org/10.36902/sjesr-vol3-iss2-2020(258-266)).
13. Imashev G., Kuanbayeva, B., Rakhmetova, M., Uteshkaliyeva, A., Tumysheva, A., Mardanova, L., Turkmenbayev, A., & Abdykerimova, E. (2020). The implementation of the specialized-education model at the present stage. *Ad Alta-Journal of Interdisciplinary Research*, 10-13.
14. Imashev, G., Kuanbayeva, B., Rakhmetova, M., Uteshkaliyeva, A., Karimova, A., Turkmenbayev, A., Zhanuzakova, Z., Shyganakova, A. (2020). Socio-economic basics of schoolchildren's polytechnic training in the modern industrial environment. *Ad Alta-Journal of Interdisciplinary Research*, 14-17.
15. Imashev, G., Kuanbayeva, B., Rakhmetova, M., Salykbayeva, Zh., Tulegenova, A., Turkmenbayev, A., Abdykerimova, E., & Mardanova, L. (2020). Specialized Education as a New Stage in the Improvement of Modern Education. *Ad Alta-Journal of Interdisciplinary Research*, 6-9.
16. Indrawati, N. (2014). Management by inspiration: Implementation of transformational leadership on business at Pondok Pesantren) Sunan Drajat. *Procedia – Social and Behavioral Sciences*, 115, 79-90. DOI: <https://doi.org/10.1016/j.sbspro.2014.02.417>.
17. Isaacs, A.C. & Carroll, W.M. (1999). Strategies for basic-facts instruction. *Teaching Children Mathematics*, 5(9), 508.
18. Jordan, A., Lindsay, L., & Stanovich, P.J. (1997). Classroom teachers' instructional interactions with students who are exceptional, at risk, and typically achieving. *Remedial and special education*, 18(2), 82-93.
19. Kornhaber, M.L., Fierros, E.G., & Veenema, S.A. (2004). *Multiple intelligences: Best ideas from research and practice*. Allyn & Bacon.
20. McCafferty, M. (2018). Kokomo: The history and meaning of a remarkable and elusive. *Journal of Onomastics*, 66(2), 75-84. DOI: <https://doi.org/10.1080/00277738.2017.1415535>.
21. Mulyasa, H.E & Aryani, W.D. (2017). Developing religious culture in school. *The International Journal of Scientific & Chnology Research*, 6(7), 263-267.
22. Nychkalo, N. (2007). Vocational education and training: problems of the relationship with the labor market. Formation of a broad qualification of workers. The contribution of the Planning and technical department to the development of labor potential of the XXI century. *Collection of training materials prepared as part of the implementation of the Ukrainian-German project "Support to the reform of vocational education in Ukraine"*. Nizhyn: LLC Aspect-Polygraph, 134-148.
23. Patriadi, H.B., Bakar, M.Z., & Hamat, Z. (2015). Human security in local wisdom perspective: Pesantren and its responsibility to protect people. *Procedia Environmental Sciences*, 28, 100-105. DOI: <https://doi.org/10.1016/j.proenv.2015.07.015>.
24. Quay, J. (2016). Not “democratic education” but “democracy and education”: Reconsidering Dewey’s of misunderstood introduction to the philosophy of education. *Educational Philosophy and Theory*, 48(10), 1-17. DOI: <https://doi.org/10.1080/00131857.2016.1174098>.
25. Schipper, T.M., De Vries, S., Goei, S.L., & Van Veen, K. (2019). Promoting a professional school culture through lesson study? An examination of school culture, school conditions, and teacher self-efficacy. *Professional Development in Education*, 1-18. DOI: <https://doi.org/10.1080/19415257.2019.1634627>.
26. Sharma, S. (2019). Democratic values, freedom, control, and life satisfaction. *Economic Affairs*, 64(1), 217-231. DOI: <https://doi.org/10.30954/0424-2513.1.2019.26>.
27. Stegman, H. (1986). The dual system in focus: structures, developments and future problems in in-company vocational training in materials from the labor market and occupational research. *Nurnberg*, 9.
28. Tereshchenkova, E.V. (2014). Dual education system as the basis for training specialists. *Concept*, 4, 41-45.
29. UNESCO. (2012). *Lack of education contributes to the crisis*. Available at: <https://www.dw.com/ru/unesco-education-facilitates-crisis/a-16307327>.

Primary Paper Section: A

Secondary Paper Section: AM

MIGRATION POLICY OF UKRAINE AND MEASUREMENT OF ITS EFFECTIVENESS

^aHANNA DOROSHENKO, ^bNADIYA DOROSHENKO,
^cIRYNA PIENSKA, ^dHANNA SUKRUSHEVA, ^eLARYSA
TIESHEVA

^{a-e}V. N. Karazin Kharkiv National University, 4, Svobody Sq.,
61022, Kharkiv, Ukraine

email: ^{a-c}ekomanagement@karazin.ua,

^dannasukrusheva@gmail.com, ^elarisakhneu@gmail.com

Abstract: The migration situation that has developed over the past ten years focuses on society's most acute and painful problem, the working population's unregulated outflow. Therefore this topic is relevant for various scientific formats: economic (the study of the impact of the outflow population, for economic policy (formation of state building), sociological mechanism (the study of demographic processes, effective legal migration legislation), for the formation of social forecasts), and so forth. It has been proved that in the minds of the newly integrated processes, the rate of acceleration which rises every year, the migration is one of the most complicated things. For approximate tributes, there are 2-3% of the population which are drowning in the different kinds of migration.

Keywords: Legal norms, Migration level, Migration policy, Protection of immigrants, Social guaranties.

1 Introduction

Migration and migration policy issues have often influenced essential issues in economic research [1]. Over the past 20 years, new or "updated" migration policy issues have emerged related to changes in people's demographics [2], well-being, skills, origins, attitude towards the host country, and international governance [3, 5].

In today's conditions in Ukraine, there is an urgent need to determine the priority areas of development of the state's migration policy, based on performance indicators. It is necessary to say that, these days, the negative phenomena increase in society. There is political instability, the east military conflict, the deindustrialization of the economy, the country's demographic crises delve more profound. It is connected with the birthrate and increased mortality, and the increasing outflow of labor resources to the countries with a better economic situation.

The Ukrainian policy state needs to introduce a method for determining its effectiveness to form and implement measures to reduce the outflow of labor outside Ukraine.

The Ukrainian policy state has internal and external sides. The internal policy is connected with the distribution of migration flows by region, creating conditions for refugees' reception and massive prevention movements. The external side is connected with immigrants' involvement, ensuring state safety, the observance of immigration rights, and the development of international cooperation. There was an evaluation methodology of the country's immigrants' attractiveness by the international organization of migration. There is given Ukraine's analysis by this method in this work and provided conclusions on improving migration policy in Ukraine.

2 Materials and Methods

More recently, home country government agencies have been facilitating travel to and communication with countries of origin, as well as participation in civilian activities in the country of origin [12]. Remittances from migrants living in more geographically concentrated diasporas increase venture funding, the number of founders in countries of origin more than remittances from migrants living in more dispersed diasporas [9]. As the number of migrants increases, diaspora development elements can help identify and exploit new business opportunities [13].

A number of publications of scientists, including V. Vasiliev, O. Malinovska, O. Petroe, are devoted to the problems of formation of effective migration policy in Ukraine. However, the

assessment of the effectiveness of migration policy according to the methodology of the International Organization for Migration for Ukraine was not conducted, so the paper presents the calculation of the migration policy index.

3 Results and Discussion

The International Organization for Migration (IOM) in the second edition of the Glossary on Migration defines the following: "Migration policy is a system of institutions, legal norms, mechanisms and practices within the national system to regulate the level of migration and protection of migrants" [10]. Diaspora development often includes elements such as:

- Geographic concentration in communities [6];
- Creation of organizations with the characteristics of a public good [7];
- Public, private, and civil society institutions that provide governance of the local diaspora [8, 9].

The UN General Assembly defines migration management as migration policies and programs of individual countries, interstate discussions and agreements, international organizations' activities, and relevant laws and regulations [10]. The Migration Government Index was developed within the International Organization for Migration framework in 2016 [11]. The migration index estimate is based on indicators grouped into five groups, as shown in Table 1.

Table 1: Indicators of the migration policy index

Indicators of the migration policy index				
1 group	2 group	3 group	4 group	5 group
1. Institutional capacity	2. Migrants' rights	3. Safe and orderly migration	4. Labor migration management	5. Regional and international cooperation and other partnerships
1.1 Institutional base	2.1 Access to basic social services and social security	3.1 Border control and enforcement	4.1 Labor migration management	5.1 Signing and ratification of international conventions
1.2 Migration strategy	2.2 Family rights	3.2 Admission and suitability criteria	4.2 Skills and recognition schemes	5.2 Regional cooperation
1.3 Legal basis	2.3 The right to work	3.3 Reintegration policy	4.3 Regulation of student migration	5.3 Bilateral agreements
1.4 Institutional transparency and coherence	2.4 Long-term residence and the path to citizenship	3.4 Measures to combat trafficking in human beings and smuggling	4.4 Bilateral employment agreements	5.4 Global cooperation
1.5 Data collection and availability of information			4.5 Migrant remittances	5.5 Other partnerships

Each group of indicators is evaluated on a ten-point scale, and then, migration policy is evaluated according to such criteria as shown in Figure 1.

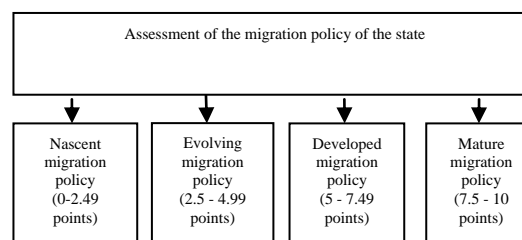


Figure 1 – Evaluation of migration policy

The calculation of the first dimension of the migration policy index of Ukraine is given in Table 2.

Table 2: Calculation of the first dimension of the index of migration policy of Ukraine

Subgroup	Question	Answer	Points	Type of migration policy
1	Is there a state body responsible for developing migration policy?	Yes	0,25	Developing migration policy
	Is there a special government agency responsible for issuing periodic reports on internal and external migration?	Yes	0,25	
	Is there a special state institution or agency responsible for internal migration policy?	No	0	
	Is there a separate government agency or agency responsible for adopting foreign migration policy?	In some measure	0,125	
	Are there operational structures to ensure an effective response in the event of a mass influx of migrants?	Yes, but they are not enough	0,125	
	Is there urban planning to prepare for migratory movements caused by climate-related natural disasters?	No	0	
2	Is there a national migration strategy defined in a policy document or manifesto?	Yes	0,66	
	Does this strategy correspond to national economic development strategies?	Yes	0,66	
	Does the country have a national strategy for interaction with its diaspora population?	Some	0,33	
3	Is there a national migration law that regulates internal migration?	No	0	
	Are there provisions governing groups of migrants according to the cause of migration or the characteristics of migrants, such as age and gender?	Some	0,66	
	Is there a specific policy on external migration?	Yes	0,33	
	Are there institutions to provide assistance to citizens living abroad?	In 100+ countries	0,33	
4	Is there a clear and transparent set of migration rules in the country?	Some	0,5	
	Is the country making efforts to strengthen policy coherence?	No	0	
5	Does the government regularly collect and publish data on the deaths of migrants?	No	0	
	Does the country regularly collect and publish data on the deaths of incoming migrants?	No	0	
Result			4,22	

Most powers in the field of migration belong to the State Migration Service of Ukraine. Their activities are directed and coordinated by the Cabinet of Ministers of Ukraine through the Minister of Internal Affairs. The Ministry of Internal Affairs remains responsible for shaping state policy in the field of migration (immigration, emigration), combating illegal migration, and human trafficking. Since 2014, the State Migration Service of Ukraine has provided statistical data on migration policy (number of arrivals and departures, registration of passports, issuance of permits, permanent residence permits, etc.) [20]. Internal migration in Ukraine, which could be an alternative to external migration, is carried out outside the regional development plans and programs. According to statistics from the State Migration Service of Ukraine and the

Office of the United Nations High Commissioner, as of January 1, 2019, there were 3,257 refugees living in Ukraine. A large number of refugees are concentrated in Kyiv and Odesa. There are three centers in Ukraine where refugees can be temporarily accommodated: in Zakarpattia, Odesa and Kyiv oblasts, the total number of places of which is up to 400. in accordance with the Constitution and laws of Ukraine, international obligations of the state, long-term programs of socio-economic development of the state. Therefore, the Strategy proposes some initiatives to involve the diaspora, namely: raising public awareness of migration opportunities can be used official websites, links with the Ukrainian diaspora, free social advertising on the Internet, etc. [18]. The Law of Ukraine "On External Labor Migration" [15, 18] has been implemented in Ukraine. As of January 2020, Ukraine has:

- 83 embassies, embassies in Libya and Syria temporarily moved to Tunisia and Lebanon due to the dangerous situation;
- 22 consulates general;
- 11 consulates;
- 112 honorary consulates;
- 8 permanent missions to international organizations.

The issue of access to information for migrants is continually improving between migration regulators (Table 3).

Table 3: Calculation of the second dimension of the migration policy index of Ukraine

Subgroup	Question	Answer	Points	Type of migration policy
1	Do all migrants have the same status as citizens when receiving health care services?	Yes	0,416	Mature migration policy
	Do all migrants have the same status as citizens in access to education?	Yes	0,83	
	What categories of third-country nationals have equal access to social security?	All of them	0,416	
	Can migrant workers have access to the benefits of social security contributions in other countries?	No	0	
2	Is family reunification possible?	Yes	2,5	
3	What categories of foreign residents have equal access to work as citizens?	All	0,5	
	Can foreign residents hold any position in the private sector on the same terms as citizens?	Yes	0,5	
	Can foreign residents hold any position in the public sector on the same terms as citizens?	Yes	0	
	What categories of foreign residents have equal access to self-employment as citizens?	All of them	0,5	
	Can foreign residents engage in self-employment under the same conditions as citizens?	Yes	0,5	
4	Do temporary legal residents have the right to apply for a residence permit indefinitely?	Yes	1,25	
	Can migrants become citizens?	Yes	1,25	
Result			8,662	

In Ukraine, everyone can use health and education services without exception, but stateless persons are often offered to pay for them.

In Ukraine, the right to family reunification is enshrined in law for all types of migrants. All categories of foreign residents have equal access to work. Migrants have the full right to work in the private sector. In the public sector, except for public authority exercise - for example, the police, defense, heads of units or

units, but not excluding civil servants and permanent staff. All categories of foreign residents have the right to self-employment. These findings are confirmed by employees of employment services during interviews, but point to a number of problems when working with migrants: a language barrier, inability to take into account the diploma of education, if the document has not passed the nostrification procedure in Ukraine, and lack of registration place of residence for migrants [20].

All legal residents have a permanent residence permit, 57.4% have applied for a stay in Ukraine for up to 2 months, in particular 42.7% for up to 1 month. However, 9.2% of respondents applied for a permit for more than a year, and individuals - for 6-7 years. The duration of the paperwork depends on what status the person receives. Thus, more than 40% of respondents who received refugee status applied for more than a year and another 27% - from six months to a year. The procedure for obtaining citizenship is regulated by the Law of Ukraine "On Citizenship" and is burdened with a lot of bureaucratic formalities. The legislation establishes the following grounds, in the presence of which it is possible to obtain citizenship of Ukraine: at birth; upon restoration of Ukrainian citizenship; when adopting or establishing guardianship; in the presence of other grounds regulated by law [4]. Table 4 presents the calculation of the migration policy index of the third group.

Table 4: Calculation of the third index of migration policy of Ukraine

Subgroup	Question	Answer	Points	Type of migration policy
1	Does the country have a visa oversight system?	Partly	0,416	Developed migration policy
	Is there a specialized body that has integrated border control and security?	Yes	0,83	
	Do border guards receive special and regular training?	Yes	0,83	
2	Does the government have a website that clearly outlines visa options?	Yes	1,25	
	Is there a formal system for applying for certain types of visas before arrival?	Yes, a mixed system	0,9375	
3	Is there a formal government program or special policy aimed at attracting citizens who have migrated from their country of origin?	No	0	
	Is there a formal government program that focuses on promoting the reintegration of migrants in their country?	Yes	1,25	
	Does the country have an anti-trafficking agency or strategy?	Yes	0,83	
4	How does the country participate in the US Department of State's annual report on human trafficking?	Some (periodically)	0,416	
	Result		6,7595	

The control over the observance of the term of visas in Ukraine is carried out selectively. The body that performs border control and security functions is the State Border Guard Service of Ukraine. The program "New Face of the Border" provides training in specialized areas, improves foreign language skills, and improves physical training. In Ukraine, a website clearly sets out the options for obtaining visas; in some cases, you can get a visa online [16].

The government has approved an action plan to ensure the reintegration into society of migrant workers and their families [17].

The Anti-Trafficking Program (IOM Office in Ukraine) began in 1998 to assist the Government of Ukraine and the public in its

efforts to combat trafficking in human beings and ensure that victims can access assistance and justice [19]. The Government of Ukraine does not fully comply with the minimum standards for eliminating trafficking in human beings but is making significant efforts to do so. Table 5 shows the calculation of the fourth index of migration policy of Ukraine.

Table 5: Calculation of the fourth index of migration policy of Ukraine

Subgroup	Question	Answer	Points	Type of migration policy
1	2	3	4	5
1	Is there a national assessment of labor market demand monitoring for internal migrants?	No	0	Evolving migration policy
	Does the country have a defined labor migration management program?	No	0	
	Are there different types of visas in the country to attract specific work skills?	No	0	
2	Does the country take into account the skills and capabilities of migrant workers when deciding whether to accept them?	Partly	0,33	
	Does the country have formalized criteria (accreditation) for the recognition of foreign qualifications?	For most professions	0,66	
3	Does the country participate in international schemes with a general professional qualifications framework?	Partly	0,33	
	Does the country give international students access to education?	Yes	0,5	
	Does the country allow equal access to education for foreign students?	Yes	0,25	
4	Does the country apply quotas to the number of foreign students it can accept based on the ability of the labor market to absorb them?	There are quotas that are not based on labor market demand	0,125	
	Is there a scheme in the country that allows foreign students to work in the country after graduation?	No	0	
5	Are there provisions that allow students to work while studying?	Yes	0,5	
	Are there formal bilateral employment agreements in the country?	Yes	1	
5	What is the average cost of transferring money to the country?	Between 3% and 7%	0,5	
	Result		4,19	

There is no assessment of labor market demand monitoring for migrants. The skills and capabilities of potential migrants are partially assessed. Legalizing the activities of a foreign non-governmental organization in Ukraine is carried out through the accreditation of a representative office in the Ministry of Justice. Ukraine fully gives international students access to education. There are quotas for enrollment of international students by state order. There is no practice of allowing international students to work in the country after graduation. The cost of remittances to Ukraine ranges from 3% and 7%. Table 6 presents the calculation of the fifth index of migration policy of Ukraine.

Table 6: Calculation of the fifth index of migration policy of Ukraine

Subgroup	Questions	Answer	Points	Type of migration policy
1	Is the country a signatory to the ICRMW?	No	0	Developing migration policy
	Is the country a signatory to the Convention relating to	Yes	0,166	

	the Status of Refugees?		
	Has the country ratified the Convention relating to the Status of Refugees?	No	0
	Is the country a signatory to the Convention on the Rights of the Child?	Yes	0,166
	Has the country ratified the Convention on the Rights of the Child?	Yes	0,166
	Is Ukraine a signatory to Convention No. 97 of the International Labor Organization "On Migrant Workers (revised in 1949)"?	No	0
	Has the country ratified the revised ILO Convention No. 97 concerning Migrant Workers (revised in 1949)?	No	0
	Has the country ratified additional provisions of the ILO Convention on Migrant Workers?	No	0
	Has the country ratified the statelessness conventions?	No	0
2	Is Ukraine part of official RCPs?	Yes	1
	Have cases of formal intra-regional mobility been registered?	Yes	1
3	Does Ukraine have formal bilateral agreements with other countries on readmission?	Yes	0,66
	Does the country have MOUs (Memoranda of Understanding) with other countries on readmission?	Yes	0,66
	Does the country participate in bilateral migration negotiations, discussions or consultations with relevant countries on the readmission of persons?	Yes	0,66
4	Is Ukraine officially involving civil society organizations in setting the agenda and implementing issues related to migration?	Some	0,33
4	Is Ukraine involved with the private sector in developing the agenda and implementing migration issues?	Some (separate initiatives)	0,33
5	Is the country part of a regional agreement to promote labor mobility (eg EU)?	Some	0,33
Result			3,468

Ukraine is not a party to or a signatory to the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Convention Relating to the Status of Refugees, ILO Convention No 97 on Migrant Workers (revised 1949), ILO Convention on Migrant Workers, without citizenship.

Ukraine signed the Convention Relating to the Status of Refugees on June 10, 2002, but did not ratify it. Ukraine is a signatory to the Convention on the Rights of the Child, signed on February 21, 1990, and approved on August 28, 1991 [14]. Regional Consultative Processes in Migration (RCP) are ongoing regional dialogues to exchange information and policies at the state level to discuss specific migration issues through cooperation between states in the agreed region, and maybe or formally linked to official regional institutions or be informal and optional.

Ukraine is somewhat formally involving civil society organizations in setting the agenda and implementing migration issues. The Representation of the International Organization for Migration in Ukraine in cooperation with the National Bank of Ukraine involved more than 20 representatives of the Government, Parliament, the private sector, and academics in a dialogue on the more effective use of migration potential for state development. In February 2019, the Verkhovna Rada legally enshrined in the Constitution of Ukraine a course for accession to NATO and the European Union. Table 7

summarizes the calculation of the migration policy index of Ukraine.

Table 7: Calculation of the migration policy index of Ukraine

Migration policy index					Sum	Result	Type of migration policy
1	2	3	4	5			
4,22	8,162	7,1755	4,695	7,218	27,2995/5	5,4599	Developed migration policy

4 Conclusion

Based on the study, it can be determined that Ukraine has a developed migration policy. To improve it, Ukraine needs to take measures in such activities as:

1. It is necessary to provide scientific substantiation of implementations in the field of migration processes;
2. Implement mechanisms to improve relations between bodies that regulate and control the level of migration in Ukraine;
3. Develop qualification profiles for migrants that will be useful for the economy of Ukraine;
4. Develop a support program for internally displaced persons;
5. Develop a program for the return of migrant workers, which is the state migration policy strategy's primary goal.

Literature:

1. Acs, Z. & Szerb, L. (2007). Entrepreneurship, economic growth and public policy. *Small Business Economics*, 28(2–3), 109–122.
2. Bartlett, C. & Ghoshal, S. (1989). *Managing across borders: The transnational solution*. Boston, MA: Harvard Business School.
3. Beine, M., Docquier, F., & Özden, Ç. (2011). Diasporas. *Journal of Development Economics*, 95(1), 30–41.
4. Bulletin of the Verkhovna Rada of Ukraine. (2001). On Citizenship of Ukraine: Law of Ukraine dated on January 18, 2001, № 13.6
5. Clemens, M., Lewis, E., & Postel, H. (2018). Immigration restrictions as active labor market policy: Evidence from the Mexican bracero exclusion. *American Economic Review*, 108(6), 1468–1487.
6. Cohen, R. (2008). *Global diasporas: An introduction* (2nd ed.). London: Routledge.
7. Cummings, M. & Gamlen, A. (2019). Diaspora engagement institutions and venture investment activity in developing countries. *Journal of International Business Policy*. <https://doi.org/10.1057/s42214-019-00035-8>.
8. Cummings, M., Deeds, D., & Vaaler, P. (2019). *Migrant tenure abroad and the differential impact of remittances for entrepreneurship in developing countries*. Working paper, University of Minnesota: Minneapolis, MN. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3460442.
9. Gamlen, A. (2019). *Human geopolitics: States, emigrants, and the rise of diaspora institutions*. Oxford: Oxford University Press.
10. Handbook on Migration Terminology. (2011). Available at: https://publications.iom.int/system/files/pdf/handbook_on_migration_terminology.pdf.
11. International Organization for Migration. (2019). United Nations Migration Agency. Available at: <http://iom.org.ua/ua>.
12. Kautto, D. (2019). Social influences in cross-border entrepreneurial migration policy. *Journal of International Business Policy*. <https://doi.org/10.1057/s42214-019-00040-x>.
13. Kunczer, V., Lindner, T., & Puck, J. (2019). Benefitting from immigration: The value of immigrants' country knowledge for firm internationalization. *Journal of International Business Policy*. <https://doi.org/10.1057/s42214-019-00034-9>.
14. Legislation of Ukraine. (1995). Convention on the Rights of the Child of the United Nations General Assembly dated on December 21, 1995. The Convention was ratified by the Resolution of the Verkhovna Rada, № 789-XII, February 27, 1991. Available at: zakon.rada.gov.ua/laws/show/995_021#Text.

15. Legislation of Ukraine. (2015). On external labor migration: Law of Ukraine dated on November 5, 2015. Available at: <https://zakon.rada.gov.ua/laws/show/761-viii>.
16. Legislation of Ukraine. (2016). On approval of the action plan for implementing the Concept of integrated border management: Order of the Cabinet of Ministers of Ukraine dated on August 31, 2016, №626-r. Available at: <http://zakon2.rada.gov.ua/laws/show/626-2016-r>.
17. Legislation of Ukraine. (2017). On approval of the action plan to ensure the reintegration into society of migrant workers and members of their families. Order of the Cabinet of Ministers dated on April 12, 2017, №257-r. Available at: <https://zakon.rada.gov.ua/laws/show/257-2017-%D1%80#Text>.
18. Legislation of Ukraine. (2017). Strategy of the state migration policy of Ukraine for the period up to 2025: Approved by order of the Cabinet of Ministers of Ukraine dated on July 12, 2017, No 482-r. Available at: <https://zakon.rada.gov.ua/laws/show/482-2017-%D1%80>.
19. Official web portal of the Parliament of Ukraine. (2020). Council of Europe Convention on Action against Trafficking in Human Beings. Available at: http://zakon3.rada.gov.ua/laws/show/994_858.
20. State Migration Service of Ukraine. (2019). Available at: <https://dmsu.gov.ua/diyalnist/monitoring-migracziijnix-proczesiv/zvit-z-monitoringu-migracziijnix-proczesiv.html>.

Primary Paper Section: A

Secondary Paper Section: AG, AO

EXPERIENCE OF SOCIAL ADAPTATION OF FORMER PRISONERS IN SOCIAL ENTERPRISES' CONDITIONS OF ACTIVITY

^aOLEG LISOVETS, ^bSVITLANA BORYSIUK, ^cHALINA BEJGER, ^dHANNA BIANCA, ^eNINA OSTANINA, ^fMARHARYTA HORODETSKA

^{a,b,d,e,f}Nizhyn Mykola Gogol State University, 2, Grafka Str., 16600, Nizhyn, Ukraine

^cState Higher Vocational School in Chelm, 54/22-100, Pocztowa Str., PL0124, Chelm, Poland

email: ^alisooleg@gmail.com, ^bsvitlanaborysiuk@gmail.com,

^chbejger@wp.pl, ^dbondarenko_mk@online.ua,

^e3777nina@gmail.com, ^fmargograd842@gmail.com

Abstract: The article aims to investigate the impact of the entrepreneurial approach on the social and professional rehabilitation of former prisoners in the context of social enterprises. At the present stage of the socio-economic development of the Ukrainian state, social entrepreneurship has emerged as a result of an innovative approach to solving complex social problems and is often discussed at various events, attracting the attention of many representatives of the social sphere, public organizations, initiative groups of activists. The use of entrepreneurial approaches to solving social problems provides in a certain way sustainable development for vulnerable groups in society, brings social entrepreneurship to a new level of development in Ukraine. The All-Ukrainian Resource Center for the Development of Social Entrepreneurship "Social Initiatives" has been researching this phenomenon in Ukrainian reality since 2012.

Keywords: Activities of social enterprises, Charitable organization, Development for vulnerable groups, Former prisoners, Social adaptation.

1 Introduction

The social enterprise is a relatively new specific type of enterprise. The creation of the first social enterprises in the world dates back to the 80s of the last century. They managed to prove a beneficial and successful mechanism for solving social problems in general due to their social and economic effects. Their operation is often based on self-financing. Thus, a social enterprise is an organization that has a dual purpose – to make a profit and solve social problems, which is a priority of their activities, the primary purpose of which is long-term social support to assist the target group through self-help.

The socio-economic realities of Ukraine are about supporting people in difficult life situations, protecting their rights and interests, and the development of Ukrainian civil society, as well as the development of social structures through social entrepreneurship, which is an integral part of social development [30].

The main activities of Ukrainian social enterprises are:

- Social enterprises that promote socio-economic integration of vulnerable groups;
- Social enterprises that provide general-purpose social services (for example, long-term care for the elderly and people with disabilities; educational and child care services; job search and retraining services; provision of social housing; medical care); other public services (public transport, maintenance of public places, etc.);
- Social enterprises aimed at strengthening democracy and civil rights;
- Social enterprises, whose activities are focused on the environmental sphere (reduction of emissions and waste, the introduction of renewable energy sources);
- Practical solidarity with developing countries (for example, the promotion of fair trade) [18].

The organization of social enterprises has objective socio-economic consequences, namely the creation and development of social enterprises in different regions of Ukraine contributes to:

- Growth of gross domestic product;
- Increase in national income, local budget revenues;

- Development and dissemination of social entrepreneurship contribute to the reform and improvement of the regulatory framework in the social sphere in general;
- A social enterprise may partially or completely take over social services provision to privileged categories of the population. It reduces the need to increase the number of social officials and budget expenditures;
- The activity of a social enterprise is focused on a specific group of consumers of social goods/works/services and involves their representatives in the management of social enterprises, thus ensuring their transparency in assessing the results of its activities;
- Financial losses in the social sphere are compensated because the activity of social enterprises is carried out on the principle of self-sufficiency;
- The creation of social enterprises provides labor integration of people with disabilities, people in difficult life circumstances, which contributes to their socialization, development, learning, etc.;
- Investors invest in a social enterprise and contribute to the development of the country's socio-economic sphere [7].

One of the company's difficulties is the lack of favorable conditions in Ukraine for the development of social enterprises: the lack of soft loans, rent benefits premises, income tax systems, which are planned to be transferred to the social programs of the public organization.

2 Literature Review

Modern researchers of the implementation of the entrepreneurial approach in the social sphere Androschuk B.L., Kornetsky A.O., Goncharova M.A., Gusak N.E., Nazaruk V.Y., Smal V.V., Tumanova A.A. consider the essence of the concept of "social entrepreneurship", its forms and types, conditions of efficiency and resources in support of vulnerable populations, historical milestones in the development of this activity in the world and Ukraine; the place of innovation in social entrepreneurship; characteristics of social enterprises in Europe, Great Britain; prospects for the development of social entrepreneurship in Ukraine [18, 22, 23, 27, 28].

Social entrepreneurship as one of the innovative technologies of social services for vulnerable groups, is a very effective and successful mechanism for solving social problems [1, 3].

Despite the fact that the terms "social entrepreneurship", "social entrepreneur" in active use appeared only a few decades ago (since 2004, the phrase "social entrepreneurship" entered the Ukrainian lexicon of scientists and practitioners), the phenomenon itself has a much longer history. Social entrepreneurs have always been, although no one called them that. In the past, such people were called patrons, dreamers, philanthropists, reformers, saints, great leaders [31].

A social enterprise is a new type of enterprise in the economic sphere of our state's development [33]. In addition to the social effect, their functioning has a positive economic effect because their activities, in many cases, are based on the principle of self-financing [4, 6, 11, 16]. A social enterprise is an organization that has a dual purpose, namely, to make a profit and solve social problems, which is a priority of their activities.

In general, social entrepreneurship is applying traditional entrepreneurship's best practices to solve social problems and achieve sustainable social change [8].

Today, social entrepreneurship is a globally recognized specific type of entrepreneurship aimed at creating social and economic benefits [2, 5] Since the end of the last century, social enterprises have become widespread in the world in its various forms: non-governmental organizations, associations; foundations (Poland); social cooperatives (Czech Republic, Hungary, Latvia, Italy);

vocational and technical enterprises for the disabled (Germany) [4]. With the help of social enterprises, they try to solve problems in those sectors of society and economy that are not covered by state or other enterprises and to which insufficient attention is paid due to lack of funds, knowledge, skills, or lack of prospects for significant economic benefits.

Given the current situation in Ukraine and its consequences, social entrepreneurship is becoming even more important for us and occupies a free niche in the economy and society, at least partially solving small groups' problems. In particular, it helps to overcome social isolation by employing people with disabilities, the unemployed, and other people at risk. There are also new types of service left out of the ordinary business due to low profitability and lack of proper training. Of course, the organization of a social enterprise's work in a certain territorial community reduces the burden on local budgets in solving social problems. Therefore, the creation of a social enterprise is a community reaction to a social problem that is becoming relevant and a priority at the moment [19, 21, 25]. Social entrepreneurship finds ways to reform public social services, works on innovations designed to improve the overall standard of living, and emerges from organizations that initiate, implement and promote positive change not only in the lives of individuals but in society as a whole [7, 26, 27].

The current challenges of Ukrainian society, in addition to the existing ones, namely military action and the problems of internally displaced persons, create additional reasons for intensifying social initiatives to help vulnerable groups. Social entrepreneurship can be an effective form of such assistance. Unlike ordinary charity, social enterprises are sustainable economic mechanisms that have a much greater impact on existing social problems and allow for a more efficient allocation of financial resources. Simultaneously, in Ukraine, there are already conditions to carry out practical social entrepreneurship, funding programs for such projects are being introduced.

3 Materials and Methods

Studying the experience of social enterprises as part of the Regional Center for Social Rehabilitation in the Lviv Region, we aimed to investigate the impact of the entrepreneurial approach on former prisoners' social and professional rehabilitation in the post-penitentiary period.

Statistics confirm the urgency of solving the problem of organizing the social adaptation of former prisoners in the Lviv region. Up to 1,300 people are released from prisons each year, and a significant number of people have been sentenced to imprisonment, annually released on parole. For certain categories of people released from prisons (single, orphaned, etc.), life situations are difficult and impossible to solve without outside help and support. A significant number of people do not have a livelihood after their release from prison. These people are often homeless, have personal documents, relatives who could take care of them. At the same time, most people who have been imprisoned for some time have poor physical health and suffer from certain, sometimes incurable, diseases. To some extent, the psyche of such people is broken. It is difficult for them to live by the standards of "normal" society.

For many reasons, people released from prisons find themselves in a situation of social exclusion and personal maladaptation. People who have legally paid their debt to society continue to suffer because of society's persistent negative attitudes toward them. The state does not feel any obligations to former prisoners. It is not uncommon for local authorities to further complicate their lives at large. A state post-penitentiary service is only being set up in Ukraine. Many former prisoners do not have any release documents other than a certificate of release from prison, they do not have housing, and their professional skills are minimal. It is almost impossible to find a job for such people. Health problems and the need for medical care significantly increase the difficulties in building their future life at large. All this is becoming a factor in the growth of recidivism.

4 Results

The Charitable Organization "Regional Center for Social Adaptation" (CO "RCSA") took upon itself the solution of some of the problems of persons released from places of detention in the Lviv region. The structural unit of the Charitable Organization "Regional Center for Social Adaptation" is the created Shelter of social adaptation for orphans and lonely, who were released from prison, which occupies 15 hectares of the total area. The Shelter is located in the Lviv region at the address Lviv region, Brody, Object 58 (Figure 1).



Figure 1 – The hostel where former prisoners live

On the Shelter's territory for Social Adaptation, there is a hostel, which is designed for the simultaneous stay of 50 people. Residents of the hostel are accommodated in 2-, 3-bed rooms equipped with the necessary furniture. The hostel is provided with water, heating, and electricity. There is a laundry plant). The Shelter has created all the conditions for the residence of citizens who have returned from places of imprisonment. They need help in adapting to the conditions and norms of society. The Shelter has a canteen. There is a medical center on the territory of the Shelter, where residents can receive primary medical care. The Shelter clients are men and women aged 18 to 70 who have been released from prison and have no close relatives, place of residence, or work. Over the twenty-four years of the Vault's operation, there were 2,767 people. Among the clients of the Shelter were the overwhelming number of men (2015) and 752 women. Now, in the Shelter, there are 27 persons (among them - 24 men and 3 women) after they were released from the places of punishment (Figure 2).



Figure 2 – The household room

Most of the former prisoners, who find help in the Shelter, received information about its existence while still in prison. Some of the information about the Shelter comes to people deprived of their liberty from official sources. For example, information about the Shelter's existence and the services it contains are disseminated by social services operating in prisons. Information about the Shelter is transmitted among persons

deprived of their liberty, also through unofficial channels. Citizens often ask for help from the shelter staff while still in prison. Many apply to the BO "RCSA" in letters with a request to grant them asylum after their release. During the existence of the Vault, 2505 such request letters were received.

For the needs of the Shelter, the Brody City Council allocated 8.5 hectares of land where a livestock farm (horses, cows, bulls, goats, pigs, geese, turkeys, chickens), a greenhouse (with conditions of use throughout the year), an orchard, plots for garden products and the like. The Shelter for social adaptation as part of the CO "RCSA" is the basic organization for research and practical training for students of Ukrainian higher educational institutions, as well as students from the Czech Republic, Poland, Austria, Germany, Belgium. Employees of the Center for Social Adaptation and the Shelter constantly travel to work with prisoners in detention places. Informing the public is an important element of the work of the CO "RCSA" on the implementation of the program of social adaptation of former prisoners through regional and all-Ukrainian media, the organization's website on Facebook, videos on YouTube, participation in scientific and practical conferences, in meetings of local and regional self-government bodies, meetings at international levels, reports on the implementation of international projects and through other forms.

The Social Rehabilitation Shelter is a structural subdivision of the CO "RCSA" and aims to help citizens who have returned from prison and have lost socially useful ties to adapt to life in freedom with the help of a system of economic, social, psychological, legal, organizational and other measures (Figure 3).



Figure 3 – Former prisoners at CO "RCSA"

The main purpose of the Shelter's activities is to provide temporary living conditions for orphans and single citizens, who have lost socially useful ties resulting from their stay in places of imprisonment, to provide them with social services and support. The specific tasks of the Shelter are:

- To provide the persons mentioned above with a place to live, work, and rest, three meals a day, and medical care;
- To provide qualified counseling on issues of psychology, law, medicine, etc.;
- To ensure the restoration of personal documents (passport, workbook, military ID, and others) and registration of the place of residence;
- To provide vocational training for persons who have returned from places of detention and do not have a profession;
- To help make a decision to change or create new living conditions in the future.

In the general provisions of the Charter on the Shelter for the social adaptation of orphans and lonely who have returned from places of detention, the content of the following terms is indicated:

- *Social work* as an activity aimed at creating social conditions for life, harmonious and versatile development of citizens,

protection of their constitutional rights, freedoms and legal interests, the satisfaction of cultural and spiritual needs;

- *Social services* as work aimed at meeting the needs that arise in the process of life ensure the harmonious and comprehensive development of citizens by providing social assistance and various social services;
- *Social support* as work aimed at the implementation of social care, assistance and patronage of socially unprotected categories of citizens to overcome their life difficulties, preserve and improve their social status;
- *Social rehabilitation* as work aimed at restoring citizens' moral, mental, and physical state, their social functions, bringing individual or collective behavior in line with generally recognized social rules and norms.

The shelter operates on voluntary settlement principles, non-violent maintenance, and adherence to universal human norms of behavior.

5 Discussion

Studying the provisions of the Charter, according to which the Shelter operates as a component of the CO "RCSA", we analyzed the content and conditions for the provision of social services to persons in difficult life circumstances (DLC), which they cannot overcome/fix on their own. The content aspect of the results of such analysis includes the list of social services provided by the CO "RCSA," namely:

- 1) The service of social adaptation, which has such tasks as:
 - Assistance in analyzing the life situation, identifying the main problems and ways to solve them, drawing up a plan for getting out of DLC;
 - Involvement of the purchaser of the service in solving DLC;
 - Providing information on issues of social protection of the population [24];
 - Training, formation, and development of social skills, abilities, social competence;
 - Correction of the psychological state and behavior in everyday life;
 - Providing psychological support;
 - Assistance in paperwork.

Responsible for implementing this service is a social worker at the specified place of rendering such services – Lviv city department of social adaptation and the Shelter of Social Adaptation in Brody.

- 2) The service of social integration and reintegration, the provision of advisory services includes:
 - Correction of the psychological state and behavior in everyday life;
 - Providing psychological support;
 - Assistance in paperwork;
 - Assistance in obtaining free legal aid;
 - Assistance in obtaining registration of residence/stay;
 - Assistance in finding a job;
 - Assistance in restoring family and socially useful ties.
- 3) The asylum service and the crisis and emergency intervention service include:
 - Provision of a bed with public utilities;
 - Provision of hard, soft inventory, clothing, footwear, food;
 - Creating conditions for the implementation of sanitary and hygienic measures; personal hygiene;
 - Organization of storage of personal belongings;
 - Organization of receiving medical services, medical examination;
 - Organization of emergency medical care.

The executors of this service are a social worker, nurses, cooks, a housekeeper, an instructor in the production process's protection and organization.

- 4) The service of social support/patronage provides for the implementation of:
 - Survey, needs assessment, determination of ways to solve major problems;
 - Drawing up an individual plan of social support;
 - Involvement of the purchaser of services in the implementation of an individual plan of social support;
 - Evaluation of the results of the implementation of the individual plan of social support;
 - Assistance in obtaining other services;
 - Organization of interaction with other subjects of social support.
- 5) Representation of interests as a social service includes:
 - Negotiating on behalf of the purchaser of services;
 - Assistance in providing access to resources and services at the residence/stay place, establishing links with other specialists, services, organizations, enterprises, institutions, bodies, and institutions.
- 6) Mediation/mediation:
 - Mutual assistance in conflict management;
 - Negotiation;
 - Processing ways and conditions for resolving the conflict.

Social services are provided to representatives of the target group, regardless of their financial situation, religious preferences, gender. In general, the provision of social services is carried out based on:

- An individual approach;
- The right to choose the form of providing social services;
- Providing complete and truthful information about the services and the conditions for their provision; maintaining the confidentiality of personal information;
- Respectful and humane treatment by service providers;
- Mutual responsibility of customers and suppliers; orientation to support, promote and stimulate the use of the recipients' potential;
- Qualified support.

The Shelter period is not limited and depends on the specific life situation of the person and his individual characteristics. Although it is possible to deprive of the right to live in the Shelter for violation of the rules of residence, stay in the Shelter in a state of alcohol and drug addiction. The head of the Shelter is a manager appointed by the director of CO "RCSA" and organizes and controls the activities of the institution. The personnel of the Shelter is as follows:

- 1) A social worker (4 people including a passport officer and a medical representative);
- 2) A labor organization instructor (2 people);
- 3) An instructor for organizing everyday life and leisure (2 people);
- 4) A cook (2 people and a canteen manager);
- 5) A household manager.

If necessary, specialists from the Regional Center for Social Adaptation are involved in the work in the Shelter.

For 24 years and today, Ihor Gnat has been the director of the RCSA. In terms of financing the Asylum, its funds consist of targeted financial assistance from the regional, city, district administrations, extra-budgetary funds, receipts from foreign funds, donations from legal entities and individuals, funds received from the labor activity of clients of the Asylum, other sources, are not prohibited by the legislation of Ukraine. Professional adaptation of the Vault's inhabitants to life and the organization of the internal economy of the Vault takes place in the form of social enterprises.

The Shelter for Social Adaptation has a well-organized internal economy. Working in the Shelter's internal economy provides its

residents with the opportunity to provide their own living in the Shelter with the things necessary for life. In particular, on the territory of the Shelter there are agricultural lands on which persons undergoing social adaptation in the Shelter produce most of the necessary food on their own and, in general, 20% -35% of their needs are earned by the residents of the Shelter on their own. So, for the Shelter's needs, the city authorities of Brody have allocated 8.5 hectares of arable land.

On the territory of the Shelter there is a livestock farm (horses, cows, bulls, goats, pigs, goose, turkey, chicken), a greenhouse (with year-round use), an orchard, vegetable gardens, 8.5 hectares of field. To work at the farm of the Shelter, there is an MTZ tractor, and equipment is required. To ensure the lives of the Shelter residents, their social and professional adaptation, production units with social enterprises' status have been created, headed by members of the CO "RCSA" (former prisoners), registered as private entrepreneurs. One such social enterprise is a car repair shop located outside the Shelter's territory, within the city of Brody, although the manager and workers of the workshop are residents of the Shelter, who leave the Shelter for the night and return to the hostel for the night. To work at such an enterprise, you need to obtain high professional qualifications and be sufficiently psychologically and socially adapted and responsible for your behavior and the image of the Vault as a whole.

High wages and significant opportunities for social adaptation open up for yesterday's convicts for working in such a social enterprise, contribute to the fact that over time they find/buy their housing and successfully arrange their lives. Social enterprises "Pilorama" and "Joiner Shop" are located on the territory of the Shelter and provide jobs for its residents. Orders come from various institutions, meeting the needs of Brody residents and the surrounding settlements of the Lviv and Rivne regions. The social enterprise "Shop for the Production of Fuel Briquettes" uses wood waste (Figure 4, 5).



Figure 4 – Sawmill work



Figure 5 – Shop for the production of fuel briquettes

At the above production sites, work is being carried out on the need for the Shelter. Work is also being carried out at the request of the local population. The heads of the production units are residents of the Shelter who have registered with the regional authorities as private entrepreneurs. Working on the internal economy of the Vault and engaging in work outside the Vault allows its inhabitants to master new professions and occupations. This is an important element of the professional adaptation of former prisoners. It develops the skills of labor behavior and discipline. It also works at social enterprises that become a factor in the successful social adaptation of this category of persons. CO "RCSA" has introduced a new form of professional training for clients: courses for electric and gas welders have been opened based on the Shelter for Social Adaptation. The courses' curriculum is designed for three months; at the same time, ten people can be trained. CO "RCSA" received a license from the Ministry of Education and Science of Ukraine to conduct course training with the right to provide state-recognized documents/certificates to persons who have completed course training.

Employees of the social adaptation shelter create conditions for clients to manage their affairs, to perform everyday functions independently. Social services provide support and assistance in the client's independent implementation of individualized activities (contacting agencies, submitting and collecting documents, looking for work, etc.). Employees of the Shelter for Social Adaptation organize special classes with its inhabitants aimed at developing the skills of a proper life in society and the formation of life competence in general. For example, training is conducted on the topics: "Housing and Housekeeping", "My Willingness to Work", "Positive Stereotypes of Behavior", "Supporting Health and Forming a Healthy Lifestyle", "Protecting Rights and Representing Your Interests", "Skillful Communication Skills".

Together with the professional adaptation of the clients of the Shelter by means of attracting them to work in the above social enterprises, the employees of the institution contribute to the restoration of social ties of clients with the family (family search), relatives, friends, neighbors to include them in society. Together with the client, the social worker plans activities to restore communication skills with family members, establish contacts, prevent and resolve conflicts. The social worker facilitates the maintenance of the client's correspondence with the family, close relatives, or others. Answering the question of an interview with Ihor Gnat about the plans for the further work of the Vault, the manager of the BO "RCSA" said that an urgent need is to create jobs for the clients of the Shelter.

The search for various employment options will provide former prisoners with start-up capital for their further life outside the Shelter of social adaptation. The Shelter's stable operation also convincingly confirms the high qualifications of its personnel, the interest and goodwill of the volunteers in the activities and development of the Shelter. In order to fulfill the tasks set in this study, we decided to analyze the effectiveness of social influence and the results of the activities of social enterprises (SP). Such an analysis of the results of the joint venture's activities and their contribution to solving a particular social problem is necessary not only for their recognition by society but also for increasing the efficiency of the joint venture's activities and further development. At the same time, there is a problem of criteria for such an assessment of the activities of social enterprises through the features determined by the specifics of the commercial organizations themselves. After all, a social enterprise is simultaneously two closely interconnected systems of goals: the first (priority) is to solve a separate social problem that is significant for society or for an individual or family. The second (subordinated) - to achieve profitability (payback or partial self-sufficiency). Besides, the achievement of a subordinate goal forms the basis for the implementation of the priority.

In the process of assessing the activities of social enterprises, it is necessary to distinguish between the social and economic results of their functioning clearly. The very essence of the

concept of "results of the activities of a social enterprise" has not been sufficiently studied to date. Traditionally, the result of activity as the end result of the functioning of the enterprise is understood as the products of labor: the goods produced, the services rendered, the work performed. But there are also other outcomes such as workers' wages, taxes, working conditions, and the like. That is, an enterprise cannot be considered only as a business entity. Indicators of its functioning provide a certain level of satisfaction and social needs.

Consequently, any enterprise's activity is characterized by both economic and social results, and the assessment of the economic result of the enterprise does not cause problems. The issue of measuring and evaluating the joint venture's social results remains more difficult and debatable. By the social results of the enterprise, researchers understand all the consequences of its functioning associated with the diverse social needs of not only the employees of the enterprise itself, but also the consumers of its products, other social groups and the impact on the environment, namely: the subjective component of the social results of the enterprise's activities concerns its practices in relation to own personnel: creation of proper working conditions; stable payment of wages and ensuring its socially justified level; additional medical and social insurance; implementation of social programs [2]; implementation of retraining programs, advanced training of personnel; implementation of various activities in the field of culture, sports, recreation of employees of the enterprise; improving communication skills; expanding social networks and participating in community life; increasing self-confidence and self-esteem; personal growth; reducing the degree of isolation/alienation and the like.

Some scholars replace the term "influence" with "social value creation" or "social returns". This is because it can be very difficult to assess a social enterprise's impact because social performance is difficult to measure and quantify. In addition, in recent years, there has been a tendency towards a shift in emphasis on determining results towards determining the social value or social impact in the direction of measuring the social performance of enterprises. On the other hand, the assessment of social performance is fundamentally important for the social enterprise itself from the point of view of attracting potential investors; that is, its results should be comparable to the performance of other social enterprises, non-profit organizations, and government programs. For the social entrepreneurs themselves, the assessment of the company's activities is the basis for optimizing further activities and helps to demonstrate their advantages in attracting investors.

Under the above external and internal criteria and indicators of the effectiveness of the impact of social enterprises' activities on their support/assistance to vulnerable categories of the population, we will consider social enterprises' activities as part of the CO "RCSA" in the Lviv region.

Firstly, social enterprises on the territory of the Shelter for former prisoners (and at present – for internally displaced persons, orphans, and lonely people) belong to specific groups of social enterprises because the purpose of their activities is:

- Employment of socially vulnerable persons, if necessary;
- Support of other institutions, since without the activities of these joint ventures, the Shelter and the Charitable Organization "Regional Center for Social Adaptation" as a whole could not exist;
- The joint venture provides high-quality services for wood processing and furniture manufacturing, the production of briquettes for heating, vehicle repairs, food, clothing, hygiene products.

Therefore, analyzing the results of the work of social enterprises on the territory of the Shelter near the city of Brody, the head of the CO "RCSA", Ihor Gnat, determines a certain influence of the activities of his organization as a whole on the situation in the region and society in general. The results of social enterprises'

functioning as part of the Shelter of Social Adaptation show that the program of social and professional adaptation of persons who have returned from places of imprisonment is involved, is quite effective. Citizens who return to normal life in society, thanks to the social services they receive at the Center, and in particular employment with high wages, have the opportunity to adapt to their future life gradually.

All Shelter dwellers are responsible for the responsibilities assigned to them by the Vault staff. All citizens in the Shelter do this or that kind of work useful for the Shelter; through the labor adaptation system (work of the joint venture), they get used to the need for work. The Shelter residents successfully undergo vocational training, receive new specialties, improve their health, and psychologically adapt to society's requirements and norms, and restore lost social functions. Only 15% of former prisoners who have undergone social and professional adaptation at the CO "RCSA" have returned to places of detention. The average Ukrainian corresponding figure is 80%. Some manage to create their own family. Twelve families again purchased houses in the Center, which they renovated together. Nine families still live in the premises acquired by Ihor Gnat. Studying the activities of social enterprises as part of the Regional Center for Social Adaptation in the Lviv region, we determined that they meet the main assessment criteria and their indicators of the success of social enterprises as a mechanism to support vulnerable categories of the population, namely:

- Social enterprises must have a clearly formulated social mission (to help lonely former prisoners, displaced persons, orphans socially adapted in difficult life circumstances for them) – is the availability of profit and its distribution (which allows the inhabitants of the Vault to survive for more than 20 years);
- Timely carry out public reporting on activities (as evidenced by the orderliness of financial reporting documents and a large number of publications in the media, videos on the Internet, participation in conferences and projects, etc.);
- Proper remuneration of staff (that provides an opportunity for those who work with time to find a room outside the territory of the Shelter, independently organize their life as a whole);
- Positive atmosphere in the team;
- Organized favorable conditions for work and rest, life;
- High quality of the offered goods and services (the results of studying the opinions of Brody region residents by the method of interviews).

The main ways to measure the social impact of social enterprise activities are as follows: the number of employed [7, 12, 32], the demand [13, 15], and the number of people who received assistance [14, 29]. At social enterprises of the Regional Center for Social Adaptation, the demand for employment prevails over the actual number of jobs.

6 Conclusion

The modern socio-economic development of states actualizes the problem of the spread of social entrepreneurship in Ukraine and Europe, which at present, complex economic growth is necessary for progress and important for finding effective alternative solutions. The idea of solving social problems by entrepreneurial methods is gaining popularity throughout Europe and gaining the attention of societies and governments.

Socio-entrepreneurial initiatives also often outstrip the state's response to challenges, create thousands of jobs, generate significant financial resources, and thereby prove their competitiveness compared to current models of economic development and play a significant role in the continuous positive development of society. The main characteristics of social entrepreneurship scientists, representatives of business structures, and practitioners call the following:

- The presence of a social and environmental problem that needs to be solved;
- Finding innovative ways to solve problems through the adaptation of the optimal business model;
- Legal registration of enterprises as separate structures or as components of a business or public organizations.

Considering the Ukraine situation and its consequences, social entrepreneurship is becoming even more relevant. It occupies a free niche in the economy and society, partially solving small groups' problems. In particular, it helps overcome social isolation, employing people with physical and mental disabilities, the unemployed, and other representatives of the risk group. There are also new types of services left without ordinary business's attention through small income, lack of proper professional training. Of course, the organization of a social enterprise's work in a particular territorial community reduces the burden on local budgets in solving social problems. Although there is still no single definition of social entrepreneurship, most researchers talk about entrepreneurial mechanisms to solve social issues, build communities, and mutual assistance.

Social entrepreneurship is also a multidisciplinary research topic since its concept includes economic elements and the issue of morality and ethics, social justice, psychology, and social work. Scientists and practitioners determine the generally positive effects of the activities of social enterprises, namely:

- Assistance in overcoming social isolation, in particular, employment of people with disabilities, the unemployed, representatives of all risk groups;
- Finding new ways to reform public social services;
- Attracting citizens to participate in social initiatives on a volunteer basis, uniting communities around social problems;
- The emergence of new types of social services are left without attention of ordinary business due to low-loyalty, unpopularity, lack of proper professional training;
- More efficient use of the available resources of the region in solving social problems;
- Reducing the burden on local budgets in solving social problems (relevant in the context of a chronic budget deficit).

The wide range of successful social enterprises only demonstrates the preference for this opportunity. Studying the activities of social enterprises as part of the Regional Center for Social Adaptation in the Lviv region, we determined that they meet the main criteria for assessing the success of social enterprises in Ukraine and have a positive impact on solving social problems of vulnerable groups of the population (in particular, lonely former prisoners, displaced persons, orphans, and others), namely:

- Social enterprises have a clearly formulated social mission;
- Social enterprises have the availability of profit and its distribution;
- The public reporting on activities are carried out on time;
- Proper remuneration of staff;
- There is a team's positive atmosphere;
- Favorable conditions for work, rest, and living are organized;
- The high quality of the offered goods and services is carried out.

Therefore, the effective passage by citizens in the Shelter, the social and professional adaptation program through social entrepreneurship participation, quickly returns them to everyday life outside the organization. In addition to the positive personal results of social enterprises' influence, the social and professional adaptation of former prisoners to life in freedom causes positive changes for the whole society. The implementation of the program of social and professional adaptation of former prisoners is a factor in reducing recidivism, which, in turn, affects the level of public safety in general.

Literature:

1. Adler, N.E. & Stewart, J. (2007). *The MacArthur Scale of Subjective Social Status*. MacArthur Research Network on SES and Health at UCSF. Available at: <http://www.macses.ucsf.edu/research/psychosocial/subjective.php>.
2. Alexandrova, A.L., Belyakov, I.V., Nikonova, L.S., & Chagin, K.G. (2005). *Monitoring social programs: practical examples*. Moscow: Institute for Urban Economics Foundation, 112.
3. American Psychiatric Association. (2014). *Diagnostic and Statistical Manual of Mental Disorders (DSM-V)*. Madrid, Spain: Panamericana.
4. Asociación Iberoamericana de Justicia Terapéutica. (2017). *Book of Conclusions of the III Ibero-American Therapeutic Justice Congress*. Santiago de Compostela, Spain: Andavira.
5. Babayan, S. (2013). Current state and prospects of promotional institutions of the penal law. *Criminal-Executive system: law, economy, management*, 3, 5-8.
6. Budatarov, S. (2008). Legal regulation of resocialization of persons released from places of deprivation of freedom: problems and solutions. *Vedomosti UIS (The Bulletin of the Penal System)*, 8, 24-26.
7. Copes, H., Brookman, F., & Brown, A. (2016). Accounting for violations of the convict code. *Deviant Behavior*, 34, 841-858. DOI: <https://doi.org/10.1080/01639625.2013.781444>.
8. Dhami, M.K., Ayton, P., & Loewenstein, G. (2007). Adaptation to imprisonment: Indigenous or imported? *Criminal Justice and Behavior*, 34, 1085-1100. DOI: <https://doi.org/10.1177/0093854807302002>.
9. Ezhova, O. (2009). The problem of resocialization of the convicted women. *Vedomosti UIS (The Bulletin of the Penal System)*, 11, 10-15.
10. Fariña, F., Arce, R., & Novo, M. (2008). Neighborhood and Community Factors: Effects on Deviant Behavior and Social Competence. *The Spanish Journal of Psychology*, 11, 78-84. DOI: <https://doi.org/10.1017/S1138741600004133>.
11. Garmash, A. (2012). It is better to prevent than to cure. Prevention of recidivism among ex-prisoners. *EZH-Yurist*, 3, 14.
12. Garmash, A. & Kosikhin, D. (2011). What lies ahead? On the rights of persons released from places of deprivation of freedom. *EZH-Yurist*, 48, 11.
13. Garmash, A., Anosov, M., & Muraleva, L. (2012). Resocialization of ex-prisoners: the experience of foreign countries. *EZH-Yurist*, 32, 15.
14. Golovko, P. (2011). Penitentiary policy, humanism and economy. *Criminal-Executive System: Law, Economy, Management*, 5, 29-32.
15. Haney, C. (2002). *The psychological impact of incarceration: Implications for post-prison adjustment*. Washington, DC: U.S. Department of Health Human Services. Available at: <https://aspe.hhs.gov/system/files/pdf/75001/Haney.pdf>.
16. Jiang, S. & Winfree, L. T. (2006). Social support, gender, and inmate adjustment to prison life insights from a national sample. *The Prison Journal*, 86, 32-55. DOI: <https://doi.org/10.1177/0032885505283876>.
17. Jordan, M. (2011). The prison setting as a place of enforced residence, its mental health effects, and the mental healthcare implications. *Health Place*, 17, 1061-1066. DOI: <https://doi.org/10.1016/j.healthplace.2011.06.006>.
18. Kornetsky, A. (2019). Social Entrepreneurship: An Effective Tool for Overcoming Social Challenges in Ukraine? *Social Business in UA*. Available at: https://socialbusiness.in.ua/knowledge_base/sotsial-ne-pidpriemnytstvo-efektyvnyy-instrument-podolannia-sotsial-nykh-vyklykiv-v-ukraini/.
19. Kutukov, S. (2013). Penal system as part of society: social functions and interaction problems. *Criminal-Executive System: Law, Economy, Management*, 1, 21.
20. Lazareva, Yu. (2010). Modern problems of social rehabilitation of persons released from places of deprivation of freedom. *Criminology Journal of Baikal State University of Economics and Law*, 1, 50-53.
21. Mikhailova, A. & Suslova, I. (2012). All to assist the released. *EZH-Yurist*, 12, 15.
22. Nagornyak, I. (2016). Social entrepreneurship in Ukraine: a dream or a necessity? *Social Democratic Platform*. Available at: <https://sdplatform.org.ua/blogs/50/socialne-pidpriemnytstvo-v-ukrainimria-ci-neobhidnist>.
23. Nazaruk, V. (2016). Social enterprises are a new trend in Ukraine. Available at: <http://nv.ua/ukr/opinion/nazaruk/sotsialni-pidpriemstva-novij-trend-v-ukrajini-338577.html>.
24. On social protection and social services to various groups of socially vulnerable groups. (2001). *Introduction to social work: A textbook*. K.: Phoenix, 124-226.
25. Pogodina, I. & Simagina, N. (2012). Actual problems of social adaptation of persons released from places of deprivation of freedom. *Criminal-Executive System: Law, Economy, Management*, 2, 9-11.
26. Prostrir "Chasopys". (2020). *Social entrepreneurship is a business for a good cause*. Available at: <http://www.chasopy.s.ua/events/event-391.html>.
27. Smal, V. & Kokot, V. (2017). *Handbook "What you need to know about social entrepreneurship"*. Federation of Canadian Municipalities. International Technical Assistance Project "Partnership for Urban Development". Available at: http://pleddg.org.ua/wp-content/uploads/2017/11/Social_Entrepreneurship-Guide-WEB-1.pdf.
28. Svinchuk, A.A., Kornetsky, A.O., Goncharova, M.A., Nazaruk, V.Ya., Gusak, N.E., & Tumanova, A.A. (2017). *Social entrepreneurship: from idea to social change*. K.: LLC, ENTERPRISE "VNA", 188.
29. Tataurov, O. (2010). Problems of social adaptation of convicted persons released from places of imprisonment. *Criminal-Executive System: Law, Economy, Management*, 2, 13-15.
30. UCAN. (2020). *Social entrepreneurship*. Available at: http://www.unicorn.cn.ua/ukr/activities/social_entrepreneurship/index.html.
31. Varnaliy, Z.S., Vashchenko, K.O., Kampo, B.M., & Libanova, E.M. (2010). *The state policy of entrepreneurship development in Ukraine: a textbook*. Edited by K.O. Vashchenko. Interregional Academy of Personnel Management, K.: Personnel, 305.
32. Weiten, W., Dunn, D. y Hammer, E. (2011). *Psychology applied to modern life: Adjustment in the 21st century*. Belmont, CA: Thomson Learning.
33. Zabala-Baños, M.C., Segura, A., Maestre-Miquel, C., Martínez-Lorca, M., Rodríguez-Martín, B., Romero, D., & Rodríguez, M. (2016). Mental disorder prevalence and associated risk factors in three prisons of Spain. *Revista Española de Sanidad Penitenciaria*, 18, 13-23. <https://dx.doi.org/10.4321/S1575-06202016000100003>

Primary Paper Section: A**Secondary Paper Section: AM, AO**

HIGHER ACADEMIC FOLK-INSTRUMENTAL MUSIC EDUCATION: UKRAINIAN EXPERIENCE AND SPECIFICS OF DEVELOPMENT

^aVIOLETTA DUTCHAK, ^bMYRON CHEREPANYN,
^cMARYNA BULDA, ^dIRYNA PALIICHUK, ^eOLGA
FABRYKA-PROTSKA

^{a-e}Vasyl Stefanyk Precarpathian National University, 57,
Shevchenko Str., 76018, Ivano-Frankivsk, Ukraine
email: ^avioletta.dutchak@pnu.edu.ua, ^bduetconcertino@ukr.net,
^caccomaryna81@gmail.com, ^diryyna.paliichuk@pnu.edu.ua,
^eolga.fabryka-protska@pnu.edu.ua

Abstract: The article analyzes the history of formation and the current functioning of higher academic folk-instrumental education in Ukraine. The main territorial centers of higher music education in Ukraine (Kyiv, Kharkiv, Lviv, Odesa, Donetsk, etc.) and the specifics of folk instruments' presentation (bayan, accordion, bandura, guitar, cymbals, etc.) are highlighted. The main components that provide the professional level of folk-instrumental education are identified: modified advanced tools, professional multi-genre and multi-style repertoire, educational and methodological support. The regional specifics of tools and formation of the content of professional training courses in modern folk-instrumental education are presented. The theoretical-methodological and repertoire basis of academic folk-instrumental education is analyzed.

Keywords: Academization, Academic disciplines, Folk instruments, Folk-instrumental academic education, Regional folk traditions.

1 Introduction

The challenges facing the music and education industry today include the interaction of many vectors and planes that ensure professional art's functioning [12]. They were joined by topical issues of mixed forms of education in a pandemic – online and offline, remote interaction between teacher and student, student and accompanist, collective ensemble, and orchestral arrangements.

In folk instrumental art should be distinguished two significant areas – the actual folk oral-traditional and folk-academic. The process of formation of the academic folk-instrumental culture of the written tradition [11], i.e., the educational system based on musical editions, textbooks, scientific methods, falls in Ukraine at the beginning of the twentieth century. This was due to a number of reasons, including the active development of urban culture, the change of socio-cultural environment for the cultivation of oral folklore tradition, the active interaction of academic stage culture, and the sphere of folk instruments.

The modern academic folk-instrumental branch continues the folk traditions of the Ukrainian people and remains one of the most democratic types of art, which is characterized by reflecting cultural needs and a rich arsenal of means of emotional influence on listeners, various forms of concert activities, mass festivals. In Ukraine, there is a constant search for improvement of folk instruments, expanding the genre and style range of repertoire, development, and implementation of new methods of teaching the game, search for optimal content of disciplines that contribute to the professional development of musician – teacher, performer, researcher.

The study's purpose is to generalize the leading trends in the formation of folk-instrumental higher academic education in Ukraine during the XX – early XXI century as a unique model of synthesizing folklore and academic traditions of Ukrainian musical culture. The novelty of the study is the introduction into scientific circulation of the analysis of the national experience of Ukraine in the introduction of academic folk instruments in the system of higher music education during the XX – early XXI centuries, the formation of professional curricula, providing teaching and research literature, original repertoire. Such generalizations today are relevant, consistent with the need to update the content of educational programs in the context of academic Ukrainian, European, and world student mobility. They represent the specifics of folk instrumental achievements in some countries [13, 20] and Ukraine. All components of the Ukrainian experience and the specifics of the development of

higher academic folk-instrumental education are presented in the proposed article.

2 Theory and History of the Formation of Academic Folk-Instrumental Education in Ukraine

The initial stage of the formation of folk instrumental education was the opening of classes of playing folk instruments [18, 19], relevant departments, and departments in institutions of higher professional music education in Ukraine. The first attempt to introduce folk instruments into educational processes was the Kyiv School of Music and Drama, founded in 1904 by M. Lysenko, the founder of the national school of composition. The school was aimed at young people and adults, i.e., it combined primary and higher education. It was M. Lysenko in 1908 who set a goal along with the violin, piano, singing, to introduce into the curriculum and the traditional Ukrainian folk instrument bandura. And although this experiment was not long (the bandura class under the leadership of I. Kuchugura-Kucherenko lasted two years), but outlined the main issues of folk instrumental education. M. Lysenko believed that the instrument should be taught not just a good performer, but an expert in the design of the instrument, methods, theory, and history of playing it, a variety of repertoire [4, p. 69–70].

D. Varlamov notes, “The huge work is done in the twentieth century by instrumental masters, composers, performers and teachers in improving folk musical instruments, development of performance, theory and methods of teaching and educating musicians has expanded the scope of folk instrumental art, opened new, earlier undetected social functions of folk tools, and thus strengthened its social status” [17, p. 131].

With the establishment of Soviet power in Ukraine (1922), many artistic and educational processes experienced constant pressure from ideological and sociocultural regulations. It also applied to folk instrumental education, particularly its components such as folk instruments, performance forms, and repertoire. Among the first folk instruments included in the field of education were the bandura and accordion.

The bandura class was opened by a prominent figure of Ukrainian culture H. Khotkevych at the Kharkiv Music and Drama Institute in 1926. Khotkevych became an apologist of nationally oriented education, wrote major works on ethnoinstrumentology, methods (textbooks for playing the bandura), created the first professional author's repertoire based on folklore sources. At the same time, he developed new constructions of the chromatic bandura and its orchestral varieties and introduced new ensemble forms of folk instrumental music-making. However, his concept did not fit into the then ideological norms, so soon Khotkevych himself was repressed, and his artistic heritage was withdrawn from use [4, p. 98–99].

The need to form professional foundations of folk instrumental education resulted from the need to train personnel in the new socio-political conditions – the creation of numerous amateur groups – ensembles, orchestras, which needed leaders, conductors, arrangers. At the same time, professional philharmonic groups of folk instrumental direction are being created. The academization of the folk-instrumental ensemble performance of Ukraine in the twentieth century proved to be a generalizing factor in forming stages of the ensemble repertoire, including in the regions. The main core of the rapid evolution (during the twentieth century) of the repertoire of ensembles, from folklore samples to modern original avant-garde works, was folk instruments' academization. Activation of the process of improving the designs of folk instruments, their unification, and the emergence of new means of expression has led to the functioning of numerous ensembles of different types [5, p. 126].

M. Imkhanytsky notes that the intensification of collective forms of folk instrumental performance (ensembles and orchestras) has become a catalyst for academicization, has led to the need for training, methodological and repertoire publications, production of instruments. Other parallel factors are also emphasized, "First, the proliferation of instruments, the timbre of which was, surprisingly, close to a large number of previously untrained in" serious music "listeners, provided through a factor of «psychological confidence» in folk instrumental timbres a single the possibility of contact, the first knowledge of the rich world of classical musical heritage. Secondly, given the underdevelopment of the media, the small number of generally accepted examples of groups' academic composition, folk instruments were often the only means of promoting classical music for a wide audience" [8, p. 318–319].

A comprehensive approach to the formation of academic, pedagogical folk-instrumental school in Ukraine was proposed by teacher and performer M. Gelis in the late 1930's. He became the organizer and first teacher of folk instruments (and later – the department) of the Kyiv Conservatory in 1938. Based on the theory and methodology of related academic musical instrumental areas, he developed a teaching method for most folk instruments (accordion, domra, balalaika, guitar), which became the only methodological basis for establishing branches and departments of folk instruments in other regions of Ukraine. We observe that under the influence of the dominant Russian musical culture, balalaika and domra classes were opened in eastern and central Ukraine educational institutions. However, the existence of these instruments did not have sufficient historical and cultural preconditions in the country. After all, the traditional definition of a folk musical instrument is determined by its status in a particular national and social environment, a certain function in ritual and non-ritual (entertaining) music [16]. Instead, such symbols in Ukrainian culture have bandura, dulcimer, flute, folk instruments with a long history of distribution and functional purpose in life, and professional status of their bearers (kobzar, ensembles of so-called trinity music), whose repertoire reflected the historical and cultural heritage.

The new socio-cultural situation of the early twentieth century caused the need for new instruments that would meet the requirements of the time and could be combined in a collective sound with other academic instruments. This required improvement, modification of folk instruments (for example, changes in the design of right and left keyboards on bayan and accordion, chromaticization of bandura, dulcimer, snot, creation of a system of tonal switching on bandura), universalization of the system (expansion of registers, range) and sound. These processes of reconstruction took place throughout the XX century and continue today. New methods of sound production, new methods of playing, and touches expanded the possibilities of instruments and contributed to creating a new repertoire and unified methods of playing.

The introduction of performers' systematic professional training on folk instruments in Ukraine took place in the postwar years (late 40's – early 50's of the twentieth century). In some cities, departments of folk instruments were opened in music schools and colleges (Lviv, Uzhhorod, Kharkiv), and a department of folk instruments was formed at the Lysenko Lviv Conservatory (1946). However, in the same years, the «campaign against cosmopolitanism» slowed down all the achievements of accordion art (as well as the development of Ukrainian musical culture in general), led to the removal of the accordion from the concert stage as an instrument of foreign origin [20]. Thus, accordionists' training in all educational institutions stopped, which has led to the complete isolation of the instrument from society.

In the postwar years of the 1950's and 1960's, the departments and departments of folk instruments in Ukraine expanded, and the classes of bandura, dulcimer, and guitar were opened, and accordion classes were revived in most Ukrainian secondary specialized educational institutions, whose graduates later

became students of higher education. The next steps were the opening of departments of folk instruments at the Lviv Conservatory (1960), Odesa Conservatory (1961) – today it is the National Academy of Music, Kharkiv Institute (now the National University) of Arts (1958), Donetsk Conservatory (1992). During the second half of the twentieth century, all specialized vocational higher education institutions have become basic in the formation of teaching staff for the structures of secondary special (schools, colleges) and primary (schools) education. Taking into account the needs of educational institutions, workshops and factories for the production of modified folk instruments were opened (Chernihiv, Lviv, Melnytsia-Podilska, Kreminna, Poltava, Zhytomyr factories), a network of competitive and festival performances was launched (with different nominations – soloist, homogeneous and mixed), established cooperation of composers, performers, teachers to create a new repertoire of various genres.

In the educational process, there is a formation of methodical bases of playing folk instruments, textbooks for beginners, self-teachers, playing schools are published, cooperation is established with professional composers who wrote new works of different genres for academic folk instruments. An important component of the repertoire for folk instruments remains the arrangement of works of music by Soviet and foreign composers, arrangements of folk melodies of different countries. From the late 60's – early 70's introduced periodicals of collections of instrumental works for individual folk instruments and ensembles, including author's works, folklore arrangements, and translations for bandura (edited by S. Bashtan – "Bandura Music Library" and "Repertoire bandura player"), bayan and accordion (M. Rizol, K. Myaskov, V. Podgorny, V. Dikusarov, A. Repnikov, etc.), bagpipes (M. Korchynsky), etc.

It should also be noted the specifics of the educational direction for the bandura. In terms of academic education, bandura, which was an accompaniment to singing by its nature, is actively developing as a solo concert instrument. However, the specifics of teaching the bandura in educational institutions of Ukraine has always retained its dual component: instrumental and vocal-instrumental. In addition, there are processes of the feminization of performance and pedagogy in the art of bandura.

The active development of folk instruments in specialized secondary and higher music educational institutions of Ukraine took place during the period of its independence (1991). Prohibited samples of the repertoire (spiritual, patriotic), works of undeservedly repressed composers and composers of the diaspora were revived. Educational programs in the specialty "Folk Instruments" are opened in many educational institutions, not only music but also pedagogical (universities).

The Ukrainian Academic School of the P.I. Tchaikovsky National Academy of Music of Ukraine became exemplary for Ukraine. It is here that a powerful staff is concentrated, separate departments of bayan and accordion, bandura, stringed folk instruments (guitars, cymbals, domra) are formed as structural units at the Faculty of Folk Instruments. Concert and performance practice of students of the department is focused on close cooperation with the National Philharmonic of Ukraine, leading state folk instrumental groups – the National Academic Orchestra of Folk Instruments, the National Bandura Band named after G. Maiboroda and others.

In the 1990s, the scientific and methodological component of folk instrumental education also actively developed. I. Alekseev, V. Besfamilnov, V. Voevodin, M. Davydov, M. Oberyukhtin, I. Yashkevych continued the work of M. Gelis at the capital's department folk instruments. Long-term head of the department of folk instruments NMAU named after P. Tchaikovsky, M. Davydov and his followers – Yu. Bai, A. Biloshitsky, N. Broiyako, O. Bulavko, V. Samitov, A. Semeshko, S. Grinchenko, I. Ergiev, P. Fenyuk, V. Dorokhin, V. Marchenko formed a theoretical and methodological basis for the study of a new academic direction of folk instrumental music at the levels of solo and collective (ensemble and orchestral) performance,

Ukrainian “modern accordion”, the evolution of accordion art in Ukraine, composition, theory, and methodology, psychology and pedagogy, etc. [1, p. 180–226].

A galaxy of Ukrainian composers creates original music for academic folk instruments – bayan, accordion, bandura, domra, cymbals, bagpipes, which cover not only music of folk origin (variations, concert fantasies, arrangements, pop, and jazz pieces), but also classical form – sonatas, suites, concerts (including accompanied by piano or orchestra) [13]. Among them – A. Biloshitsky, V. Vlasov, V. Viryasova, A. Gaidenko, I. Gaidenko, O. Herasymenko, V. Gubanov, V. Zubysky, M. Korchynsky, B. Kotyuk, B. Mikheev, B. Myronchuk, V. Podgorny, A. Stashevsky, M. Stetsyun, V. Runchak, and others. Their music focuses on the prospects of expanding the individual semantics of each of the academized folk instruments, preserving their sound-expressing aesthetics along with the new artistic thinking of the authors. The young generation of musicians’ desire to a theatrical performance of musical images is subject to the ideas of a new worldview, the depth of philosophical embodiment as an artistic phenomenon of modern musical culture [14]. The organic combination of folk instrumental sources with the peculiarities of the author’s vision of musicians performers expands all instruments’ functionality. The genre range of children’s repertoire for folk instruments is also expanding – to ensure the continuity of educational traditions – from music school – to higher education.

In the context of globalization changes in society, culture, and art, there is an increased interest in pop and jazz music, which attracts attention to a new kind of folk instrumental embodiment. From the primary environment of everyday music to professional art, the rapid evolution of this genre is especially intensively introduced in the academic educational space of educational music institutions of Ukraine. Along with the obvious achievements of classical instrumentalism, contemporary Ukrainian musicians’ achievements in the pop-jazz genre encourage a new reproduction of a holistic picture of his artistic trends, determined by the dynamics of world music culture.

The Department of Folk Instruments of the Odesa National Music Academy named after A. Nezhdanova, is considered to be one of the brightest academic schools of pop and jazz performance in Ukraine. A bright representative of this trend is the composer and performer V. Vlasov. His individual and stylistic searches together with performers V. Murza and I. Yergiev determine in the general context the unique features of the Odesa school of accordion and accordion performance, whose multifaceted activity is based on the established traditions of pop and jazz music [7, p. 175–176].

Along with classical-academic art, in the 90’s, folk-instrumental art begins to actively develop the pop-jazz direction of performance – first in the form of transcriptions, later author’s music. Folk instruments (guitar, bandura, accordion, cymbals, flute) are actively used in mass samples of musical culture, as well as popular, pop, jazz, theater and film projects, and performers are involved in rock bands, participate in many famous TV shows, create media samples for television, radio, Internet resources. In their performing practice, «light» entertaining and popular music (transcriptions and covers) is now actively promoted by well-known Ukrainian performers – soloists and groups. This, in particular, on the accordion and accordion – V. Zubysky, E. Cherkazova, S. Grinchenko, V. Pirog, O. Mykytyuk, S. Trotsenko (Kyiv), V. Gubanov, B. Myronchuk (Zhytomyr), I. Snedkov, O. Tulinov (Kharkiv), J. Oleksiv, V. Yanchak (Lviv), on the bandura – R. Hrynkiv, S. Myrvoda, V. Lysenko, I. Panasyuk, I. Tkalenko, J. Dzhus and the group “Spiky (Shpylyasti) Kobzars” (Kyiv), G. Matviyiv (Odesa-Kyiv), trio “Verbena” (Cherkasy), “Kralya” (Kyiv), Lvivyanky Quartet (Lviv), Metamorfozi Duo and Gerdan Quartet (Ivano-Frankivsk); mixed bands – NAONI, duo “B&B Project”, “KoloYolo” (Kyiv), group “River Land” (Dnipro), “Troye Zillya” (Lviv), soul singer M. Krut and group “Krut”. By the way, most groups started their activities as students.

Therefore, this performing direction’s intensification has made its changes in the educational component of folk instrumental art.

The high professional level of the Ukrainian academic folk instrumental school has spread far beyond the country. Its graduates are well-known musicians who implement the scientific-methodical and musical-performing experience of Ukrainian teachers in the practice of foreign educational institutions in Europe, America, and Australia. Among them: accordionists E. Gabnis (Lithuania), T. Lukic, G. Savkov (Australia); accordionists V. Golubnychy, V. Andropov (Russia), V. Balik (Croatia), I. Vlach (Slovakia), A. Sluka (Germany), P. Runov (Italy), A. Serkov (Austria), O. Chuyev (Bandura players O. Herasymenko-Oliynyk (USA), O. Zelinska (Canada), A. Lanova (Portugal), L. Kovalchuk (Australia), cymbalist M. Zakhariya (Slovakia) and others.

Changes that have taken place in the folk instrumental art of Ukraine during the XX – early XXI century and, above all, the improvement (modification) of tools, the interaction of urban and rural cultural environment [15], as well as the formation of educational, academic sphere, have identified a number of innovations paradigm of a new folk-instrumental, but already an academic tradition. Among them: the expansion of the tool in various social strata, and especially among the intelligentsia; improved chromatic tools, but with the preservation of the basic form and design of the tool, strokes, and techniques of the game; formation of a written form of transfer of artistic experience – within educational institutions; stage and studio forms of performance – concerts, festivals, audio, and video recordings; differentiation of forms and genres of playing solo, ensemble, orchestra; expansion of the timbre side of performance – the emergence of homogeneous and mixed types of groups [4, p. 62].

3 Content of Educational Programs of Academic Folk-Instrumental Music Education: Modern Ukrainian Context

Since Ukraine’s accession to the Bologna system of education in 2005, the principles of training have changed significantly, including the specialty “Musical Art” (“Folk Instruments”). The division into bachelor’s and master’s degrees allowed to differentiate the level of qualifications of graduates and most accurately determine the hierarchy and content of academic disciplines, their interaction, to improve the system of assessment (rating). An important component of educational processes in the new conditions was the possibility of wider specialization and academic mobility both within the country and in Europe.

The main components of the curriculum of the specialty «Folk Instruments» in the field of “Musical Art” in the system of modern higher education institutions of Ukraine are the cycles of compulsory and elective disciplines, which together are aimed at obtaining professional competencies by applicants for relevant qualifications. Having a selective part of the curriculum and the basic mandatory allows you to increase the professional opportunities of students, hence the competitiveness of professionals in the labor market [10]. These factors, common in Europe and America, have entered Ukrainian educational realities relatively recently. However, teachers’ and performers’ educational and methodological experience was adapted to the new requirements of the time and, taking into account the need to revive the sacred themes banned by the Soviet government, as well as the work of repressed authors and composers-emigrants, received a new direction.

Most of the subjects of the compulsory part of the curriculum of the specialty “Musical Arts” (“Folk Instruments») determine the acquisition of profile qualifications at both the bachelor’s and master’s levels. This is a performing qualification – a soloist-instrumentalist on a specific instrument, an artist of an ensemble (orchestra) of folk instruments or a folk ensemble, and especially bright graduates – a qualification of a concert performer. Regardless of the chosen specialty profile, the main qualification

of graduates is pedagogical – teacher-instrumentalist in institutions of primary, professional higher, and higher education. Students of folk instrumental direction also can obtain additional qualifications – conductor (leader) of the orchestra of folk instruments or singers (bandura player).

Among the disciplines of the compulsory humanities cycle in art education institutions are the history of Ukraine, Ukrainian and foreign languages for professional purposes, culturology, philosophy, aesthetics, music pedagogy, and psychology. Their list is determined by the relevant recommendations of the Ministry of Education and Science of Ukraine.

If the elective component of the curriculum in each institution is different, then the mandatory disciplines of professional training in the vast majority are the same. These are such subjects as a specialty (playing an instrument), orchestral and ensemble class, general piano. An important role in professional training is played by subjects of practical orientation – the history of performance on folk instruments, methods, and theory of teaching playing folk instruments, pedagogical practice. Obtaining additional qualifications provides the study of orchestral conducting, scores, instrumentation, instrumentation and arrangement, methods and theories of conducting skills, and conducting practice.

The effectiveness of training in professional subjects should provide graduates with artistry, stage endurance, high performing culture and technical skills of solo mastery of folk instruments at the appropriate professional level, the development of ensemble skills, including in working with the accompanist; ability to analyze and interpret musical works of different genres, styles, and forms. It is also important for students to know the folk instrument's technical and timbre capabilities, the ability to select the repertoire taking into account the individual characteristics of the student for pedagogical practice, to have a method of teaching playing the instrument [14].

The repertoire requirements determine the content of programs from each folk instrument by profession, but it is mandatory to study works of art of a certain form – polyphonic, large (sonata, suite, concert), variation, concert pieces, which, in turn, must represent creativity composers of different epochs and styles, as well as technical material – etudes and scales [9].

A significant difference is the discipline of the orchestra class in higher education institutions. This is due to regional traditions in Ukraine, which influenced the composition of folk instruments, their differences between the western and central-eastern regions. Thus, in the western regions, we observe the composition of folk instruments composition closer to traditional music (in particular, triple music) – a combination of violin group, accordion, wind, and bandura; instead, in the central-eastern regions, the composition of the so-called orchestra of the “Andreevsky” type, including domrova, balalaika, accordion, and accordion groups. Ensembles of accordionists, guitarists, and bandura ensembles (chapel) representing instrumental and vocal-instrumental genres of creativity are practically widespread in all regions of Ukraine today.

4 Results

The cycle of music-theoretical and music-historical disciplines plays an important role in the successful formation and development of the folk-instrumental branch and its academic educational component. It aims to develop specialists' ability to self-development and self-improvement, providing music graduates with the fundamental knowledge and practical skills that will guarantee them professional mobility and competitiveness not only within different regions of Ukraine or other countries. Besides, music-theoretical knowledge is also necessary for research, writing term papers, bachelor's and later master's theses.

A cycle of disciplines of professional vocational training is obligatory for all students of folk-instrumental education. It

includes such subjects as “History of World (Foreign) Music”, “History of Ukrainian Music”, “Harmony”, “Solfeggio”, “Analysis of Musical Works”, “Polyphony”.

Features of the courses “History of World (Foreign) Music” and “History of Ukrainian Music” are the consideration of genre and style features of composers, purposeful analysis of works of art, the disclosure of the relationship between traditional and innovative in music by authors of different national schools. These courses summarize the latest research in the field of modern musicology, focused on the formation of aesthetic evaluations and criteria, musical thinking, and more. Mastering these disciplines allows students to use their knowledge and skills to study professional subjects – instrument playing, orchestral conducting, ensemble, and orchestral classes, etc. [2]. One of the most important subjects of the cycle of music-theoretical disciplines is “Harmony”, which creates a basis for professional perception and musical works analysis. This subject covers a wide range of musical phenomena; it is practically aimed at forming functional and harmonious thinking. Knowledge of the harmony of music is indispensable in mastering specific technical skills in playing folk instruments, theory and practice of instrumentation, arranging, processing, as well as gaining practical experience in accompaniment and improvisation.

The course “Analysis of musical works” contains a range of special knowledge, which together form a scientific idea of the structure of musical works and the relationship of compositional structure with the artistic content of music; important elements of music (melody, rhythm, mood, etc.), their expressive capabilities and formative role; musical syntax, musical themes, general principles of development and formation in music, a musical work in the unity of its text and heterogeneous contexts. Thus, this discipline will contribute to the deepening of students' professional knowledge, particularly the specialty “Folk Instruments”. Since a significant part of the repertoire of students of this specialty is works based on folklore, the priority for them is to understand the genre in its entirety, compositional features of construction and development of form, determining the structure of a musical work in its historical and stylistic context including genres of the sonata, suite, and concert, which are new to folk instrumental art.

A specific place in the cycle of music-theoretical disciplines is occupied by “Solfeggio”, which is at the intersection of theory and practice. The course's content aims to systematically develop students' musical abilities: melodic, timbre, fricative, harmonic, polyphonic hearing, metro-rhythmic sensation, musical memory, musical-auditory representations, i.e., musical-auditory experience. For students of folk instrumental direction, this subject is important in terms of (context) of musical intonation, practical operation of folk music [2].

One of the essential theoretical disciplines, the task of preparing populist students for conscious, stylistically competent performance of compositions of different eras, is “Polyphony”. Mastering the immanent, most characteristic phenomena in this field of music-theoretical disciplines helps to assimilate works of appropriate texture effectively – both arranged for folk instruments and taking into account the specifics of folk polyphony. Polyphonic thinking is an integral part of professional training on folk instruments – ensemble and orchestral playing, orchestral conducting, and more broadly – in the practical activities of the future performer, teacher.

The above-mentioned disciplines of music-theoretical and music-historical cycle aim to develop natural musical talents of higher education students majoring in “Folk Instruments”, the formation of their analytical thinking and professional competencies needed in further professional performance and teaching.

It should be noted that the professional training of students of academic folk-instrumental education also contains a mandatory folklore component, which has its regional expression in various

educational institutions. Yes, in the Dnepropetrovsk Academy of Music named after M. Glinka in the cycle of professional and practical training of bachelors specialization "Folk Instruments" includes a course "Ethnomusicology", the subject of which is the study of the genre color of the folklore of Ukraine, which enhances the worldview and theoretical training of students [3]. Lviv National Music Academy named after M. Lysenko, offers to study the elective subject "Musical Folklore", National Academy of Music named after P. Tchaikovsky – elective courses "Traditional musical cultures of ethnic groups of Ukraine", "Ukrainian folk music". Traditions of folk music are also part of the course "History of performance on folk instruments".

5 Discussion

Some Ukrainian educational institutions contribute to a clear regional orientation of the content of educational courses for music students. Such experience is offered, in particular, by the Vasyl Stefanyk Precarpathian National University [2]. Here, among the elective disciplines of the specialization «Folk Instruments» of the educational level "Bachelor" – "Theory and practice of folk instrumental performance", which includes the study of regional specifics of folk performance (Hutsul, Lemko, Boyko subcultures) and Folklore expedition, documentation)), which contributes to graduates' practical activities in the collection, preservation, and decoding of samples of vocal and instrumental folklore [6]. To better master the orchestral score's various components, students learn to play additional instruments – flute, accordion, dulcimer, guitar, percussion.

In Ternopil National Pedagogical University. V. Hnatiuk's elective disciplines at the "bachelor's" level include "Folk Music" and "Fundamentals of Analysis of Folk Songs", "Master" – "Modern Ethnomusicology", "Notation of Folk Music". Rivne State University for the Humanities also offers students the study of elective disciplines of folk instrumental direction – "History and Theory of Musical Folklore", "Musical and Ethnographic Transcription", "Folklore Ensemble", "Musical and Folklore Research". In Kamyanets-Podilsky National Pedagogical University. I. Ogienko at the bachelor's educational level is offered the subject «Theory and methods of studying children's musical folklore».

The master's level curriculum involves the improvement of theoretical knowledge and practical skills acquired at the bachelor's level. Therefore, disciplines of this level are more focused on the applicant's direct employment – in performing groups, institutions of primary or pre-professional music education. They provide for the correlation of scientific master's research with the practice of solo, ensemble, conducting, interpretation of works of various forms and styles, the composition for folk instruments, innovations in teaching methods. Future masters master the basics of composition and processing, improvisation, teaching subjects in high school, and undergo pedagogical-assistant, performing, and research practice. The result of studying the main professional disciplines – a special instrument and conducting, is the preparation of solo and ensemble concert programs. Also, some subjects of the selective cycle are aimed at expanding the artistic horizons of students, for example: "Musical folklore of the peoples of the world", "Computer technology in music", "Evolution of artistic styles of art" and others.

One of the strategic links to improve the methodology of teaching folk instruments was the holding of international scientific and practical conferences of teachers and students, which take place in many cities of Ukraine (Kyiv, Lviv, Kharkiv, Odesa, Drohobych) with the support of line ministries; Ministry of Culture and Information Policy), as well as higher education institutions – organizers of the event. In addition to scientific reports, the result of which is the release of conference materials, the program of the practical part of the forum includes a wide range of musical presentations – concerts of soloists and ensemble groups, master classes of leading teachers, creative

competitions for art students and students institutions of music education.

Performing skills of students of folk instrumental specialties of academic educational institutions of Ukraine are formed on the basis of successful selection of educational repertoire, which is based on original works of Ukrainian and foreign composers, arranging and processing of classical and folk music, modern and avant-garde compositions of popular and jazz twentieth-century works in concert transcriptions or arrangements. Methodical and personal (concerning individual preferences) principles of repertoire selection qualitatively and effectively influence the education of artistic taste, performance style, stage culture, and intellect of the musician in general. All this corresponds to the level of classical academic education, which is acquired and implemented by highly qualified specialists, talented graduates of folk instrumental music education in Ukraine.

6 Conclusion

Thus, higher academic folk-instrumental education of Ukraine recorded a unique experience, which consists in the complex interaction of pedagogical and performing (solo, collective, conducting) spheres of development, aimed at obtaining a broad qualification of graduates – soloists, ensemble artists or folk instruments, conductors of an orchestra or bandura choir. The peculiarity of folk instrumental training programs in higher educational institutions of Ukraine is based on the priority of continuity of traditions of each region in particular and national culture in general, preservation of authentic (e.g., trinity music) and academic development, including experimental forms of chamber and ensemble music (homogeneous and mixed), promoting the best examples of Ukrainian composers of different generations. The rich folk and instrumental culture of Ukraine is assimilated by applicants for higher education and implemented in performance, pedagogy, and research.

The focus on the interaction of the Ukrainian folklore component with the achievements of modern schools of composition is evidenced by the numerous victories of many Ukrainian performers on folk instruments at international competitions and festivals in Ukraine and around the world. It also determines the acquisition of leading positions of the Ukrainian folk-instrumental school in developing the theory of the formation of pedagogical and performing skills, highly qualified modern teaching methods among professional musicians of many countries.

Literature:

1. Davydov, M.A. (2005). *History of performance on folk instruments (Ukrainian academic school)*. Textbook. K.: NMAU named after P.I. Tchaikovsky, 419.
2. Department of Musical Ukrainian Studies and Folk Instrumental Art. (2020). *Educational and professional program "Musical art. Folk instruments"*. Electronic resource. Available at: <https://kmunim.pnu.edu.ua/>.
3. Dnipropetrovsk Academy of Music. (2020). *Educational and professional program "Musical Art"*. Electronic resource. Available at: <http://dk.dp.ua/>.
4. Dutchak, V. (2013). *Bandura art of Ukrainian abroad*. Monograph. Ivano-Frankivsk: Foliant, 488, 72.
5. Dutchak, V., Voloshchuk, Y., Pasichnyak, L., & Gulyanych, Y. (2013). *Ensemble folk-instrumental tradition of Prykarpattia: interaction of folklore and academic directions*. Monograph. Ivano-Frankivsk, 200.
6. Fabryka-Prottska, O. (2013). *Song culture of the Lemkos of Ukraine (XX – XXI centuries)*. Monograph. National Academy of Managing Staff Of Culture And Arts, Ukrainian Center for Cultural Studies, Vasyl Stefanyk Precarpathian National University. Ivano-Frankivsk: Nova Zorya, 327.
7. Cherepanin, M.V. & Bulda, M.V. (2008). *Variety Olympus of the accordion*. Monograph. Ivano-Frankivsk: Lileya-NV Publishing House, 256.
8. Imkhanitsky, M. (2008). *Formation of stringed plucked folk instruments in Russia*. M.: RAM im. Gnesinykh, 370.

9. Paliychuk, I. (2017). *Typological models of the Western European sonata for guitar of the first half of the XIX century. Musical art of the XXI century – history, theory, practice.* Scientific collection. Proceedings of the Institute of Musical Arts of Drohobych State Pedagogical University named after Ivan Franko. Drohobych – Kielce – Kaunas – Almaty: Posvit, 3, 211–216.
10. Pillai, V.V. (2006). *Sarpam Tullal: A Ritualistic Performance of Kerala.* In Performers and their Arts: Folk, Popular and Classical Genres in a Changing India, edited by S. Charsley and L. N. Kadekar, London: Routledge, 29–43.
11. Rosaldo, R. (1988). Ideology, Place, and People without Culture. *Cultural Anthropology*, 3(1), 77–87.
12. Schippers, H. (2006). Tradition, Authenticity and Context: The Case for a Dynamic Approach. *British Journal of Music Education*, 23(3), 333–349.
13. Semeshko, A.A. (2009). *Bayan-accordion art of Ukraine at the turn of the XX–XXI centuries.* Ternopil: Textbook – Bohdan, 244.
14. Stashevsky, A.Ya. (2013). *Modern Ukrainian music for accordion: expressive means, compositional technologies, instrumental style.* Monograph. Lugansk: Yantar, 328.
15. Stewart, S. (1991). Notes on Distressed Genres. *Journal of American Folklore*, 104. DOI: 5–31.10.2307/541131.
16. Turino, T. (2008). *Music as Social Life: The Politics of Participation.* Chicago: University of Chicago Press.
17. Varlamov, D.I. (2009). *Metamorphoses of folk musical instruments.* Monograph. M.: Kompozitor, 180.
18. Way, L.C. & McKerrrell, S. (2017). *Understanding Music as Multimodal Discourse.* In Music as Multimodal Discourse: Semiotics, Power and Protest, edited by L. C. Way and S. McKerrrell. London: Bloomsbury, 4–16.
19. Wright, A.R. (1928). Presidential Address. The Unfinished Tasks of the Folklore Society. *Folklore*, 29(1), 15–38.
20. Yang, Y. & Welch, G.F. (2016). Pedagogical Challenges in Folk Music Teaching in Higher Education: A case study of Hua'er music in China. *British Journal of Music Education*, 1, 1–19. DOI: 10.1017/S0265051715000248.

Primary Paper Section: A

Secondary Paper Section: AL, AM

SCIENTIFIC AND METHODOLOGICAL ASPECTS OF SELF-DEVELOPMENT STRATEGY IN PHYSICAL EDUCATION OF STUDENTS OF HIGHER MEDICAL INSTITUTIONS OF EDUCATION

^aZHANNA MALACHOVA, ^bTETYANA BELKOVA, ^cOLGA SOKRUT, ^dVALENTIN YAKUSHEVSKY, ^eOKSANA ZAKHAROVA

^{a,c}Donetsk National Medical University, 1st medical faculty, 39, Machine-Builders Blvd., 84331, Kramatorsk, Ukraine

^bDonetsk National Medical University, 2nd medical faculty, 1, Velyka Perspektyvna Str., 25000, Kropyvnytskyi, Ukraine

^dDonetsk National Medical University, 3rd medical faculty, 80, Shevchenko Blvd., 87500, Mariupol, Ukraine

^eFlight Academy of the National Aviation University, 1, Dobrovol'skoho Str., 25005, Kropyvnytskyi, Ukraine

email: ^azhanna.koval.11@gmail.com, ^bbelkovato@ukr.net,

^csokrutolga@gmail.com, ^dlevpraydov@ukr.net,

^eoksana.vit.zakharova@gmail.com

Abstract: The research aims to multi-faceted studying students' personal health mechanisms of medical institutions of higher education and ways to strengthen and preserve it based on physical self-improvement using sanative technologies, which are vital for students' professional development during distance learning. The main research methods were theoretical analysis and generalization of special scientific and methodological literature, pedagogical experiment, system-structural analysis, and mathematical statistics methods. The proposed algorithm for compiling a preventive and sanative program for the development of EG students' health contributed to their physical self-improvement, which was reflected in the state of functional systems of the body, resulting in significant changes in personal health. During the research, it was found that the formation of a healthy lifestyle of students of higher medical education is a process of acquiring knowledge, abilities skills of a healthy lifestyle, which provide the foundation of physical and mental well-being as well as success in professional activities; the formation of a stable motivation for caring for their health and physical training, development of the physical and mental qualities, creative use of the means of physical education to provide high efficiency and creative longevity, the ability to work professionally without psychological drains in the name of successful professional activity in the chosen field during distance learning.

Keywords: Health activities, Healthy lifestyle, Personal health, Physical activity, Physical education.

1 Introduction

As an independent social group, students have always been the object of special attention [31]. There has been an alarming trend of deteriorating health status among young people in recent decades, their physical state [16]. This is due not only to changes in the economy, environment [14], working and living conditions of the population but also to underestimating health and educational functions in the society, which affected the harmonious development of personality [36].

The 2020-2021 academic year in the higher education institutions began during the deteriorating epidemiological situation in Ukraine caused by the spread of coronavirus disease (COVID-19). According to the letter of the Ministry of Education and Science № 1 / 9-576 dated October 12, 2020, "Regarding the temporary transition to distance learning", it was recommended to introduce distance learning in the higher education institutions [39].

According to current legislation, higher education institutions have academic autonomy. Higher education institutions independently determine how to organize the educational process in quarantine and what technologies to use for distance learning, which should be balanced and give students the opportunity to achieve progress in learning. It is important to choose the appropriate forms for this, which will not be limited by written works (abstracts). The ever-increasing amount of information without full feedback from the teacher, the lack of access to sports facilities of educational institutions make the educational schedule of student youth increasingly stressful. Forced restriction of motor activity leads to atrophic changes in muscles, bone tissue, metabolic disorders, decreased protein synthesis. Hypodynamia has an extremely adverse effect on the brain, it may cause headaches, insomnia, young people become emotionally unbalanced, and a simultaneous increase in mental stress complicates learning and physical condition [23].

A sedentary lifestyle is one of the main causes of severe chronic diseases of the internal organs [29]. At the same time mental capacity deteriorates, there may be negative changes in the central nervous system, worsening of attention, thinking abilities, memory, and weakening of emotional stability [33].

To improve the situation, it is necessary to organize the students' lifestyle according to their development [12, 13], to introduce a rational regime of studying and recreation, to develop effective means of influencing the physical state of the individual. It is necessary to promote physical education and sports as a generating factor in a healthy lifestyle of students and study the motives, interests, and needs of modern students of medical institutions during exercising to improve their state of health [30].

It is possible to change a student's attitude to their health and personal lifestyle if they understand these values and prioritize maintaining physical, mental, and social health through education [2]. Health-preserving pedagogy, on the one hand, should form special knowledge, abilities, skills of preserving and strengthening of health, and on the other – to provide in pedagogical technologies possibilities of carrying out independent attempts of self-improvement, improvement of their body, mentality, emotions, communicative abilities, taking into account the humane attitude to the world, to the environment and themselves [5].

The emphasis on the formation of a healthy lifestyle for health-preserving of young people is because the perception of certain norms and patterns of behavior, gaining proper knowledge and skills, the realization of needs and motives, determining values, interests, and ideas form at a young age [8].

2 Literature Review

Physical education in the learning process of higher education, as part of the general educational system, provides the basis and development of health, a complex approach to the formation of mental and physical qualities of the individual, improvement of physical performance, preparation for active life and future professional activity on the principles of individual approach, the priority of sanative orientation and optimization of the learning process using various means and forms of physical improvement [28].

Studying the impact of physical education on the formation of a harmoniously developed personality and human health [7]; conceptual ideas for modeling the processes of education and development of children's and adolescents' motivation in physical education; factors that influence the effectiveness of teaching physical exercises and developing physical qualities, and therefore determine the interest in exercise remain extremely relevant not only in Ukraine [18].

Problems of health and a healthy way of life for the young generation and the maintenance of conditions of their optimization became a subject of research of philosophers, doctors, psychologists, and teachers. Theoretical and methodological principles of a healthy lifestyle are described in the works of A. Lyakhovych (1990), L. Sushchenko (1997), I. Smirnova (2000), V. Orzhekhovskaya (2002), A. Polulyakh (2007), V. Yazlovetskiy (2007), O. Petryshyn (2017), I. Shostak (2017) [25, 26, 27, 35, 37, 38, 44]. Psychological and pedagogical aspects of educating a healthy lifestyle of children and youth V. Voytenko (1991), S. Svyridenko (2000), O. Vakulenko (2001), T. Boychenko (2005), D. Voronin (2006) O. Zheleeva (2014), T. Krutsevich (2017), V. Radul (2017) [4, 31, 39, 41, 42, 43, 45].

The issues of formation of a healthy lifestyle by means of physical education were considered in the works of L. Mikheev

(2005), B. Shiyan (2008), A. Turchak (2009), V. Arefiev (2010), O. Dubohay (2011), D. Pyatnitskaya (2017) [1, 8, 9, 34, 40].

According to G. Kurtova (2008), in the conditions of psycho-emotional stress of the learning process, physical education, which creates the necessary prerequisites for a healthy lifestyle, is traditionally and justifiably considered a leading factor in improving the health and preparing students for active life and productive professional activity [19].

Among the factors that have the greatest impact on students' health is pedagogical because the foundations of physical, mental, social, and spiritual health are formed in universities. It is a complex dynamic process that is closely linked to a person's lifestyle. The relationship between lifestyle and health most fully reveals the concept of a "healthy lifestyle" [6].

The research analysis allows us to say that recently the number of young people who belong to special medical groups at the beginning of higher education is increasing. Accordingly, there is a decrease in the number of students belonging to the main group. This makes it especially important to study the state of students' healthy lifestyles and solve problems of primary disease prevention.

In addition, the research works by M. Popychev (2009), B. Koryagin and O. Blavt (2013), L. Ivashchuk and Y. Boychuk (2017) indicate a low level of physical development, physical state, and capacity of students [5, 15, 17]. The authors point at an insufficient level of solving the main tasks of physical education. As a result, the vast majority of university graduates are physically unable to perform their professional duties with the required quality and intensity.

The working potential of young people, on which the social and economic well-being of Ukraine depends, is declining. In this regard, one of the most important tasks of physical education of students is to strengthen their personal health, increase the level of physical state and physical condition of the individual through their involvement in a healthy lifestyle.

Motivation to follow a healthy lifestyle is formed on the basis of the biological needs for movements, new impressions, new information. The formation of the need for movement is a priority of physical education activities, which is possible provided by regular classes. The process of increasing students' motivation to engage in physical education should be approached comprehensively. The motivation for a healthy lifestyle is an essential component of a modern student's life. Under this motivation, the researcher of this problem T. Kyrchenko (1998), understands "the system of internal motivating forces that contribute to its maintenance and meet the natural human need to be healthy".

As a result of the research, the author V. Kuzmenko (2000) concluded that: the determining factor in ensuring active life expectancy, social, biological, and mental well-being of citizens is a healthy lifestyle, which provides for the presence of adequate forms of behavior [20]. A healthy lifestyle can be divided into three groups: standard of living, lifestyle, and quality of life [3].

The standard of living (level of well-being) is the degree to which people's material and spiritual needs are met by the mass of goods and services used per unit of time [11]. Lifestyle – the behavioral side of human existence, the established standard to which individuals adjust (socio-psychological category). Quality of life is an analysis of a set of criteria and features of a person's life, usually based on the personal degree of satisfaction with these conditions and features [21].

Modern society is faced with the task of forming a healthy lifestyle as a condition for the preservation of the Ukrainian nation, the prospects for the true spiritual renewal of future generations, the key to a qualitative change in the state [24].

We emphasize the importance of forming a healthy lifestyle in medical institutions, as future medical workers in universities get one of the most difficult and most in-demand professions [35].

The problem of acquiring professional knowledge, skills, and abilities by future medical workers in order to form a priority of personal health, which should occupy one of the leading places in their future professional activity [22], is relevant in this context.

There is a need to develop and implement concrete actions aimed at improving the health of students. One of the effective ways to solve this problem is to create conditions for the formation of a healthy lifestyle of young people through the perception of the ideal, norms of behavior, and awareness of the negative impact of factors on the body and mind as a condition for preserving the Ukrainian nation.

Research purpose – studying the mechanisms of the personal health of the younger generation and highlighting the problem of forming a healthy lifestyle among students of medical, educational institutions and identifying the main current areas of self-development strategy in physical education.

3 Materials and Methods

3.1 Research Participants

The research involved 611 students of 1-4-year of Medical, Dental, and Pharmaceutical faculties of Donetsk National Medical University aged 17-23 years (208 boys (34%) and 403 girls (66%)).

The specifics of the object and the purpose of the study led to the use of a set of general and special methods: theoretical methods – study, analysis and systematization of educational and normative documentation, philosophical, medical-biological, psychological-pedagogical, methodical and special literature, curricula, dissertations and abstracts, materials of conferences and periodicals on the subject of the research; comparison and generalization of theoretical and empirical data to study the nature, structure and content of the formation of a healthy lifestyle of students of higher medical institutions by means of physical education; empirical methods: diagnostic methods (questionnaires, testing, interviews, individual interviews); observational methods (direct, indirect, participant observation); diagnostic methods (anthropometric, physiological, pedagogical); prognostic methods (expert assessments, data analysis, generalization of independent characteristics, modeling, ranking, etc.); visual methods, experimental methods; statistical: quantitative and qualitative processing of the results of a pedagogical experiment using the methods of mathematical statistics in order to determine the reliability of the experimental results.

3.2 Statistical Analysis

Statistical processing of the data was performed using the Excel 2010 spreadsheet editor (Microsoft, USA, 2010), the average value was used.

The main research methods were the analysis and generalization of literature sources, system-structural analysis. The content of the pedagogical experiment aimed at applying experimental methods in the preparation of students of medical institutions of higher education for the formation of personal health in the process of educational and extracurricular activities, in the formation of a healthy lifestyle by means of physical education and health activities based on physical self-improvement, as well as innovative physical educational and health-improving approaches, which were selected based on the level of physical and functional capabilities of students, which allowed to obtain objective data on the current and stage state of personal health indicators.

4 Results

A questionnaire was conducted to study the needs, interests, motivation, and attitude of the 1-4 year students of Medical, Dental, and Pharmaceutical faculties in Donetsk National Medical University aged 17-23 years to different types, forms, and means of physical activity in their free time. One hundred eighty respondents took part in the survey. The questionnaire consisted of 17 questions, which allowed to find out their attitude to classes in the discipline of "Physical Education". 4 of them were creative and required a detailed answer, 4 questions were answered "yes" or "no", and the rest contained ready-made solutions.

To the question "Are you engaged in physical education and healthy activities in extracurricular time", the majority of students – 50 %, said "sometimes", 16.7 % – "no" and only 33.3 % of respondents answered "yes". It is determined that 80 % of classes on various types of physical activity in extracurricular time are usually occasional. Only 17.0 % of respondents are engaged regularly and 3.0 % – by accident. To the question, "What are the main motives that stimulate you to be engaged in physical education classes?" The answers are: 32.2 % of respondents prefer to improve their appearance and state of health, 16.8 % of students enjoy and relieve stress, 22 % reach for self-affirmation and self-improvement, 19 % – increase self-esteem and gain self-confidence. It should be noted that only 15.5 % of students are interested in attending extracurricular activities, and 84.5 % do not attend them at all.

Thus, 34.3% of students consider the main reason for the insufficient level of formation the physical activity lack of proper technical provision (sports facilities, playgrounds, equipment), which would allow exercising; 30.2 % of respondents – lack of systematic habit of regular physical activity; 11.5 % of respondents preferred excessive promotion of tobacco products, alcoholic beverages on television and in everyday life; 24 % of students – features of the emotional and volitional sphere of an individual.

A number of students answered the questions ambiguously and gave several answers. Among the reasons that may prevent them from engaging in physical education and health activities, 50.2 % of students attributed to lack of free time, 30.9 % – heavy workload, 12.6 % – lack of opportunity to attend classes, 6.3 % – lack of interest in studies and their monotony (Figure 1).

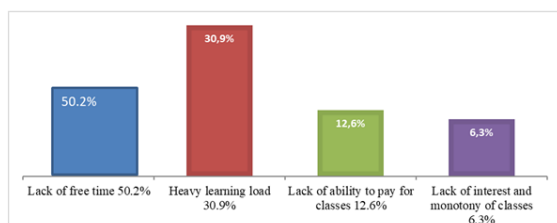


Figure 1 – The results of the survey on the attitude of students to physical education and health activities.

The analysis revealed that out of 100 % of students in the leading medical group, 87 % are engaged in physical education, and 13 % are not engaged in classes due to health issues. There is a tendency to worsen students' health state due to the number of people in special medical groups. Because of the small number of classroom hours (30 per semester) devoted to physical education classes, students are indifferent to the content of compulsory physical education classes. Almost 70 % of them have health problems, and more than 45 % have a poor physical state.

It was found that the attitude of the student's social environment to physical education and sports, as well as the attitude to personal health and a healthy lifestyle in a larger number of students, is generally positive. Most of the students have agreed that physical education in higher education promotes a healthy lifestyle and improves their personal health. But more students

showed a negative, indifferent attitude to the organization, content of classes, and distribution of educational material in physical education. Also, a significant number of students, 75 % (first year) and 58.2 % (second year), expressed a desire to engage themselves in physical education in sports clubs. The biggest obstacles to attending extracurricular activities are the lack of free time and lack of support from friends, the negative impact of the social circle, the inability to force themselves to increase physical activity due to adaptation processes, large curriculum, and false prioritization, also the spread of COVID-19 lately. The idea of the personal health of medical students is only reduced to disease prevention.

The leading types of physical activity, according to the choice of first- and second-year students, were team sports (football, volleyball, basketball) – 43.3 %, cyclic sports (swimming, athletics, cycling) – 25.1 %, tourism, and orienteering – 20.8 %, the same percentage received aesthetic sports (rhythmic gymnastics, sports dancing), as well as game sports – 11.8 % (Figure 2).

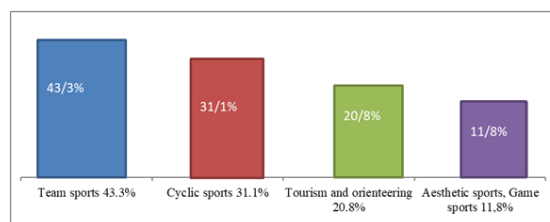


Figure 2 – Preferred types of physical activity according to the results of the questionnaire

Students' values are seen as means to differentiate objects of physical education according to their significance.

The results of our study are consistent with the scientific views of Richards, and Levesque-Bristol (2014), who emphasize the importance of structuring curricula so that they develop the need for lifelong learning [32].

5 Discussion

Analyzing the scientific approaches to forming a healthy lifestyle of students to strengthen students' personal health during their studies at the Medical University, we found out the state of anthropometric data in boys and girls. The data on the physical development of medical students were studied. From the analysis of the available indicators of youth's physical development, it is possible to conclude that the students (young men) of the first year have a lag in body weight and a chest circumference as to body length. By the second year, young men's weight increases, although it does not reach the proper level. As for the girls, their body weight and chest circumference tend to increase. However, the data of medical examination and anthropometric indicators cannot fully state the state of physical health of students of medical universities.

The results of theoretical analysis, synthesis, and generalization of pedagogical, scientific-methodical, and special literature allowed us to consider the data presented in table 1, which characterize the state of the personal health of students of medical institutions of higher education by means of physical education (Table 1).

Table 1: Components and indicators of the formation of the personal health of students of medical institutions of higher education by means of physical education

Components	Indicators	Diagnostic methods
Motivational	- Value attitude to personal health; - Strong interest in physical education classes; - The presence of positive motivation for health activities.	- Self-assessment; - Questionnaire.
Cognitive	- Theoretical knowledge about personal health; - Possession of a system of professional and applied	- Diagnostics of test tasks in professional disciplines.

	knowledge for the formation, maintenance and strengthening of personal health; - Ability to self-control and self-correct in the aspect of health care.	
Activity	- Improving the functional characteristics of the physical aspect of health; - Application of rehabilitation techniques; - Ensuring the optimal physical condition of the individual which determines the achievement of a certain level of physical skills.	- Development of a preventive and health programs for the maintenance of personal health.
Reflexive	- The development of psychophysiological capabilities; - Ability to create behavioral algorithms; - The ability to predict the outcome of their actions.	- Introspection; - The level of physical development of students according to the method of G. L. Apanasenko.

It should be noted that these structural components extrapolate the process of forming students' personal health as a systemic education, the components of which create a complex that has its content and structure.

The formative experiment program consisted of the use of types of physical education and health classes of the students' choice, as well as the provision of the necessary theoretical knowledge on the basics of a healthy lifestyle, organization of independent physical exercises, theory of physical culture. Students who joined the experimental group (EG1) chose aerobics classes, which included studying various dance styles – from folk to modern. The theoretical part was used in each lesson. The provision and testing of theoretical knowledge were carried out with the help of educational games and interactive technologies. Students of the experimental group (EG2) chose active and sports games. The theoretical part was also used during each lesson, but material was given according to the traditional system of education. The control group (CG) was engaged in the program of physical education developed by the Department of Physical Education of Donetsk National Medical University.

The results of a rapid assessment of students' physical health before and after the experiment indicate an increase in personal health. Prior to the pedagogical experiment, the majority (62%) had a below-average health state. In the end, the rates of EG1 and EG2 rose to the average, which is considered a safe level (Table 2).

Table 2: Student physical health indicators (according to the method of G.L. Apanasenko)

Indexes	Experimental group №1 (n=60)		Experimental group №2 (n=60)		Control group (n=60)	
	Before	After	Before	After	Before	After
Body mass index, kg • m ⁻²	22,6±2,1	21,3±1,8	22,3±2,1	21,0±1,6	24,3±3,1	24,5±2,5
Power index, %	49,4±6,7	52,0±6,2	48,8±6,1	50,8±5,6	63,2±5,6	70,7±5,4
Life index, ml • m ⁻¹	44,3±4,0	47,9±3,7	43,6±4,0	45,8±3,6	52,1±4,2	59,5±3,8
Robinson's Index, c. u.	91,4±3,4	90,2±4,1	90,2±4,1	85,3±3,1	89,5±4,1	81,1±3,6
P	< 0,05		< 0,05		< 0,05	

The mathematical processing of research results shows that there were significant changes in personal health in the experimental groups.

6 Conclusion

During the years of studying in universities, young people do not increase but primarily lose their body's reserve stock, which significantly affects its efficiency and sharply reduces the younger generation's reproductive capacity. Active engagement of students in physical education and health activities is essential for the harmonious development of the individual and influences a particular person according to their needs. Each student needs to form a caring attitude to their health and physical condition, develop comprehensive physical and mental qualities, and promote the active and creative use of physical education in the organization of a healthy lifestyle of future doctors.

As a basis for determining ways to improve the physical state of students during distance learning, we propose to consider: providing students with the opportunity to choose sports and fitness systems to increase the level of physical state at their own will; creating favorable conditions for independent classes of students at the desired time and according to a personal schedule, providing students with the amount of knowledge necessary for independent planning of physical exercises during individual consultations and personal diary of self-development.

Literature:

1. Arefiev, V.G. (2010). *Fundamentals of the theory and methods of physical activity*. Kyiv: NPDU Publishing, 268.
2. Belkova, T.O. (2018). *Training of medical students by laying down to form a special health by means of physical culture*. Dissertation of candidate of pedagogical sciences, Kropyvnytskyi, 316.
3. Berdnikov, I.G. (1991). *Mass physical education at the University*. Graduate School: Study Guide, Moscow, 240.
4. Boychenko, T.E. (2005). *Educational programs for the formation of a healthy lifestyle for young people*. Kyiv: Knowledge, 268.
5. Boychuk, Yu.D. (2017). *The theory of health that health and safety is in full swing: collective monograph*. Kharkiv: Rozhko S.G. Publishing, 448.
6. Bulych, E.G. (1997). *Valeology: Theoretical basis of valeology*. Kyiv, 224.
7. Burachevskiyi, L.I. (2003). *For students, about a healthy lifestyle*. Moscow: Publishing house MAI, 35.
8. Dubohay, O.D. & Zavydivska, N.N. (2012). *Physical education and health*. Kyiv: BU of NBU, 270.
9. Dubohay, O.D., Alyoshin, A.I., & Lavrinyuk, V.E. (2011). *Basic concepts and terms of health care and physical rehabilitation in the education system: a textbook for students of higher educational institutions*. Lutsk: Lesya Ukrainka Eastern European National University in Volyn, 296.
10. Furman, Yu.M. (2013). Correction of aerobic and anaerobic lactate productivity of young people by running loads of different regimes. The author's abstract of dissertation: 03.00.13. Kyiv, 20.
11. Imashev G., Kuanbayeva, B., Rakhmetova, M., Uteshkaliev, A., Tumysheva, A., Mardanova, L., Turkmenbayev, A., & Abdykerimova, E. (2020). The implementation of the specialized-education model at the present stage. *Ad Alta-Journal of Interdisciplinary Research*, 10-13.
12. Imashev, G., Kuanbayeva, B., Rakhmetova, M., Salykbayeva, Zh., Tulegenova, A., Turkmenbayev, A., Abdykerimova, E., & Mardanova, L. (2020). Specialized Education as a New Stage in the Improvement of Modern Education. *Ad Alta-Journal of Interdisciplinary Research*, 6-9.
13. Imashev, G., Kuanbayeva, B.U., Yelezhanova, S.K., Myrzashova, A.N., Medeshova, A.B., Kochshanova, G., Zharylgapova, D.M., & Sultangaliyeva, L.S. (2020). Enfoques innovadores para el desarrollo de la educación ambiental en la escuela secundaria. *Revista Dilemas Contemporáneos: Educación, Política y Valores*, 6, Edición Especial. Dated on January, 2020.
14. Imashev, G., Medeshova, A., Barsay, B., Suleimenova, Zh., Kuanbayeva, B., Rakhmetova, M., Abdykerimova, E., & Saparova, G. (2020). Training of competent teachers in higher education institutions of Kazakhstan. *Ad Alta-Journal of Interdisciplinary Research*, 18-21.
15. Ivashchuk, L.Yu. (2017). *Modern conceptual factors of the integral characteristic of the health of the person and society*. General theory of health and health-preserving: a collective monograph, by general. ed. of prof. Yu.D. Boychuk. Kharkiv: Rozhko S.G. Publishing, 488.
16. Kirichenko, T.G. (1998). Formation of a healthy way of life of students of pedagogical high school in the course of physical training. Dissertation of Candidate of Pedagogical Sciences: 13.00.04. Kyiv, 189.
17. Koryagin, V.M. & Blavt, O.Z. (2013). *Test control in physical education*. Germany: LAP LAMBERT Academic Publishing is a trademark of OmniScriptum GmbH & Co. KG, 144.

18. Krucevich, T.Yu., Pangelov, N.E., & Kryvchikov, O.D. (2017). Theory and methods of physical education: the textbook for students of higher education of physical education and sports: in 2 volumes. *Methods of physical education of different groups of the population*. Kyiv: National University of Physical Education and Sport of Ukraine, Publishing House "Olympus 1-re", 448.
19. Kurtova, G.Yu. & Ivanov, D.M. (2008). Healthy lifestyle as a priority value of education of modern children and youth. *Bulletin of Chernihiv State Pedagogical University*, 55, 168-170.
20. Kuzmenko, V.Yu. (2000). *Formation and development of the concept of "healthy lifestyle". Moral and spiritual development of personality in modern conditions*. A collection of scientific papers, Book 1. Kyiv, 117-124.
21. Lubysheva, L.I. (1997). Modern value potential of physical culture and sports and ways of its development by society and the individual. *Theory and practice of physical culture*, 6, 21-22.
22. Lyakhovich, A.V. (1990). New approaches to the formation of a healthy lifestyle of students in universities of various profiles. *Healthy lifestyle and physical culture of students: social and hygienic aspects*. Kharkiv, 84-85.
23. Mikheeva, L.V. (2005). *Formation of the motivation of studying of pedagogical disciplines by future teachers of work and professional training*. The author's abstract of dissertation: 13.00.04. Vinnytsia, 19.
24. Omelchenko, S.O. (2005). Contents and methods of work of the class teacher on the formation of a healthy lifestyle of schoolchildren. *Humanization of the educational process: collection of scientific works*, Slovyansk: SSPU, 27, 144-151.
25. Orzhekhovska, V.M. (2002). *Theoretical and methodological principles of forming a healthy lifestyle for children and youth*. Kyiv, 376.
26. Petryshyn, O.V. (2017). *Methods of professional-applied physical training of students of higher medical educational institutions. Theory and methods of teaching (physical culture, basics of health)*. The author's abstract of dissertation: 13.00.02. Kharkiv: V.N. Karazin Kharkiv National University, 20.
27. Polulyakh, A.V. (2007). *Formation of a healthy way of life of teenagers using physical education*. Dissertation of candidate of pedagogical sciences: 13.00.07. Zhytomyr: Zhytomyr Ivan Franko State University, 262.
28. Popelyuk, M.V. (2015). *Aspects of the formulation of knowledge about healthy living for students youth*. Available at: <http://www.rusnauka.com/17PM2015/Pedagogica/4195116.doc.htm>.
29. Popichev, M.I. & Nosov, Yu.A. (2009). Running technique for the recovery of students and methods of adaptation of the body to a given load. *Pedagogy, psychology and medical and biological problems of physical education and sports*, 4, 100-103.
30. Pyatnytska, D.V. (2017). Development of physical abilities of students of higher educational institutions using aerobics. The author's abstract of dissertation: 13.00.02. Kharkiv, 22.
31. Radul, V.V. (2017). *Social maturity of the person*. Kharkiv: Machulin, 442.
32. Richards, K.A.R. & Levesque-Bristol, C. (2014). Student Learning and Motivation in Physical Education. *Strategies*, 27(2), 43-46. DOI: <https://doi.org/10.1080/08924562.2014.879431>.
33. Rymar, O. & Kutsenko, O. (2011). Physical culture in the hierarchy of values of a modern student. *Young sports science of Ukraine*, 15(2), 211-216.
34. Shiyan, B.M. (2008). Theory and methods of physical education of schoolchildren. *Bohdan*, 272.
35. Shostak, I.O. (2017). Formation of health culture of medical college students in extracurricular activities. Dissertation: 13.00.04. Uman, 243.
36. Shvets, N. (2011). The problem of forming a healthy lifestyle of student youth in Russia. *Comparative professional pedagogy*, 2, 141-148.
37. Smirnova, I.V. (2003). *Priorities of social policy based on indicators of social health of the economically active population*. The author's abstract of dissertation: 22.00.03 Economic Sociology, St. Petersburg, 20.
38. Sushchenko, L.P. (1997). Healthy lifestyle as an object of social cognition. Dissertation: 09.00.03, 185.
39. Svyridenko, S. (2000). *Formation of the culture of child health in the family as a factor of social competence*. Steps to competence and integration into society: scientific and methodical collection. Kyiv: Context, 135-139.
40. Turchak, A.L. (2009). Characteristics of the personal and social component of a healthy lifestyle of older adolescents with impaired health. *Scientific notes*, Kirovograd: EPM Volodymyr Vynnychenko KSPU, 87, Series: Pedagogical Sciences, 28-32.
41. Vakulenko, O.V. (2001). *Healthy lifestyle as a socio-pedagogical condition for the formation of personality in adolescence*. Dissertation of candidate of pedagogical sciences, Kyiv, 178.
42. Voronin, D.E. (2006). Health-preserving competence of a student in the socio-pedagogical aspect. *Pedagogy, psychology and medical and biological problems of physical education and sports: a collection of scientific papers*. Kharkiv: KSADA (KAII), 2, 25-28.
43. Voytenko, V. P. (1991). *Healthier healthy*. Introduction to Sonology: Health, Kyiv, 246.
44. Yazlovetskiy, V.S. & Turchak, A.L. (2007). *Organization and methods of health physical culture*. Kirovograd: EPM Volodymyr Vynnychenko KSPU, 284.
45. Zheleeva, O.I. (2014). *Formation of skills of a healthy way of life: methodical manual*. Zolotonosha, 147.

Primary Paper Section: A**Secondary Paper Section: AM**

THE DEVELOPMENT OF BIOETHICS IN THE CONTEXT OF THE CHRISTIAN SPIRITUAL TRADITION

^aIRYNA VASYLIEVA, ^bNATALIIA MOZGOVA, ^cDMYTRO BILOZOR, ^dTETIANA HLUSHKO

^{a,c}*Bogomolets National Medicine University, 34, Peremogyi Prosp., 03057, Kyiv, Ukraine*

^{b,d}*National Pedagogical Dragomanov University, 9, Pirogovska Str., 01030, Kyiv, Ukraine*

email: ^aivafilos1403@gmail.com, ^bmozgova@gmail.com, ^cbelozordima@gmail.com, ^dtetyana.glushko@gmail.com

Abstract: The article aims to explicate the Christian spiritual tradition in the context of philosophical-religious and bioethical discourse. The methodological basis of the work is an interdisciplinary approach, philosophical and generally scientific methods: systemic, dialectical, historical, hermeneutics, comparative analysis, etc., the principles of objectivity, confessional unbiasedness, world outlook, and methodological pluralism inherent in modern religious studies. As a result of the research, three levels of integration ties were identified and analyzed: interdisciplinary synthesis within individual groups of sciences; between disciplines belonging to different groups of sciences (natural, humanitarian, social, technical); the tendency towards the convergence of science and various forms of extra-scientific knowledge, religion, inherent in the education of bioethics as an integrated direction of modern knowledge. It is grounded that the basis of this process should be a model of complementarity and dialogue between science and religion, secular bioethics, and religious approaches, in particular Christian moral theology. In the context of fundamental norms and principles inherent in the Christian spiritual tradition, the author analyses the problems associated with interrupting human life in the initial and final stages: abortion, selective termination of pregnancy, the use of assisted reproductive technologies, euthanasia.

Keywords: Bioethics, Christian spiritual tradition, Dialogue, Religion, Science.

1 Introduction

In connection with the actualization in modern society of the issues of metaphysical, axiological, and moral-ethical comprehension of life, health, and death of a person, it is of particular importance to appeal to the Christian spiritual tradition based on humanistic values, universal moral norms, and principles.

Based on the study of the characteristic features of the Christian spiritual tradition, its crucial importance in the formation and development of bioethical approaches, taking into account the dynamics of religious life in the modern post-secular world, it can be concluded that the deepening of dialogue and cooperation between science and religion, philosophy and theology is one of the main directions in the development of bioethics in the XXI century.

In the context of the coronavirus pandemic, issues of life and death, health and well-being, moral regulators of human behavior, the functioning of health systems, political and state institutions have acquired existential urgency. According to Judit Sandor, in this situation, "...we all gradually became participants in the textbook of ethical dilemmas" [23]. In conditions of limited economic and medical resources, many states, like many people, are essentially forced to choose between moral, ethical, and economic imperatives, the safety of life, health, and material well-being; between the attitudes of utilitarian ethics on selective medical care and social justice, the humanistic principles of bioethics; between individualism, national egoism and mutual assistance, "unconditional solidarity" (A. Surozhsky), "the beauty of brotherhood" (Pope Francis).

In such crisis, borderline situations, as history shows, it is traditional social institutions (family, religion) that are spiritual support for many people. In this regard, it is relevant to appeal to the Christian spiritual tradition, which was of great importance in the development of bioethics in the United States, Europe, including the countries of Eastern Europe, which experienced socialist atheistic experiments in the 20th century. Despite the 70-year history of forced quasi-atheization, on the whole, there is a positive trend in the religious level of society in Ukraine. According to the results of a study by the sociological service of Razumkov Centre (2019), the number of those who define themselves as believers is 66%, among which 64.9% consider

themselves to be Orthodox; 1.6% – to Roman Catholicism; 9.5% – to Greek Catholicism; 1.8% – to Protestantism; 8% identify themselves as "just a Christian" [21].

Taking into account the specifics of the situation, we focus not so much on the differences between various Christian confessions and denominations, but on clarifying the general, which is characteristic of the Christian world, its ethos. The purpose of this article is to explicate the Christian spiritual tradition in the context of philosophical-religious and bioethical discourse.

2 Materials and Methods

The theoretical and methodological basis of the article is biblical texts, documents of Christian churches, works of Orthodox, Catholic and Protestant theologians, founders of bioethics, modern researchers in the field of bioethics and biomedical ethics. The versatility and complex nature of the problem under study necessitated the use of interdisciplinary approaches, philosophical and generally scientific methods: systemic, dialectical, historical, hermeneutics, comparative analysis, the principles of modern religious studies – objectivity, confessional non-involvement, worldview, and methodological pluralism.

3 Results

The occurrence of bioethics in the 70s of the XX century most researchers associate with the name of the American humanist, biochemist, oncologist Van Rensselaer Potter, in particular, with the publication of his works "Bioethics: the science of survival" (1970), "Bioethics: a bridge to the future" (1971). He linked the way out of the growing ecological catastrophe and other crisis phenomena that humanity faced in connection with the rapid, but uncontrolled development of the latest technologies with "building a bridge" connecting the natural science and humanitarian cultures. According to V.R. Potter, humanity urgently needs new wisdom, which would be "knowledge of how to use knowledge" for human survival and improve his life. The science of survival should be not just a science, but new wisdom that would unite the two most important and vital elements are biological knowledge and human values. Based on this, I propose a new term for its designation – "Bioethics" [19].

It is important to note that Potter's bioethics project included in the scope of its research not only humans but also the world of all living things. In the book "Global Bioethics Building on the Leopold Legacy" (1988) V.R. Potter identifies two interrelated areas of bioethics-medical and environmental, substantiating the need to integrate medical and environmental bioethics within the framework of global bioethics, which "...focuses on protecting human health, protection of the land and the whole world" [18].

Despite the controversial nature of issues about the subject of bioethics, its status in the system of modern knowledge, Potter's idea of the interdisciplinarity of the "new ethics" is, in fact, axiomatic in bioethical discourse. However, the substantiation of this specificity of bioethics requires a certain concretization based on paradigmatic approaches in the philosophy of science, taking into account various levels of integration ties. As it is known, in the history of the development of science a complex, contradictory combination of processes of differentiation and integration is manifested. In the process of scientific, technical, and cultural progress of mankind, the need for the synthesis of knowledge increases, which is manifested in the strengthening of the tendency towards integration, the creation of interdisciplinary ties, especially characteristic of non-classical and post-non-classical science.

The non-classical model of science, which is based on evolutionary approaches, polysystems, and the population style of thinking, has actualized the importance of interdisciplinary

synthesis within individual groups (subsystems) of sciences. This level can be conventionally designated as the first level of interdisciplinary synthesis. For example, manifestations of this level of integration ties in the natural sciences were the emergence of bioorganic chemistry, biochemistry, biophysics, astrobiology, etc., the strengthening in medicine of the orientation towards taking into account the relationships and interdependencies between the organs and systems of the human body, the formation of an approach to the person (patient) taking into account the integrity his entire body.

With the formation of post-non-classical science, which is built on the foundations of holism, pluralism, the anthropic principle, the methodology of synergetics, an interdisciplinary synthesis of the second level intensively develops: between disciplines that belong to different groups of sciences [1]. The manifestation of this trend is not only the convergence of natural and humanitarian sciences but also the humanization of applied, technical knowledge. Disciplines related to the study of various aspects of human health, medicine as a social institution: sociology of medicine, sociology of health, sociology of disease, the psychology of disease, etc. can also be classified as natural-socio humanitarian areas based on the interdisciplinarity of this level.

The development of a tendency of a higher level of integrative ties – the mutual convergence of science and various forms of extra-scientific knowledge – is also associated with post-non-classical science, especially of the late XX - early XXI century. The formation of the phenomenon of "post-scientific", "superdisciplinary synergetics", "implicit thinking" (J. Deleuze, F. Guattari, M. Polani), developing against the background of postmodernization, post-secularization goes beyond science and is a general cultural trend of modern society. Bioethics goes beyond the boundaries of interdisciplinarity to the level of interdisciplinarity, since we talk about the integration of scientific (rational) and value-normative approaches that are contained not only in philosophy, ethics but also in other forms of spiritual culture, primarily religion.

The idea of turning science to humanistic values and moral norms of religion can also be traced in Potter's project of creating a "new ethics". The very formulation of the issue of bioethics as "new wisdom" contains an appeal to the syncretic, ethos foundations of modern knowledge, which unite not only rational, cognitive but also psychological, moral, ethical, spiritual, and practical components. V.R. Potter repeatedly returns to the problems of religion, in particular Christianity, proceeding from the fact that "humanity needs a combination of biology and humanistic knowledge (diverse in its origin), from which it is necessary to forge the science of survival and, with its help, establish a system of priorities (italics I.V., N.M., T.G., D.B.) [19]. He praised Teilhard de Chardin's teachings as "an attempt to build a bridge between religion and science" [19].

However, the tendency towards rapprochement between science and religion does not mean leveling its qualitative features as different forms of human comprehension of reality. This process can be most adequately explicated based on complementarity and dialogue models. The complementarity model implies that science and religion refer to the same reality from different perspectives, providing not competing, but complementary explanations [2].

Establishing the dialogue between science and religion in the modern post-secular world presupposes not only the recognition of the autonomy of science and religion, the full rights of secular and religious institutions, but also the overcoming of mythologemes about the incompatibility of science and religion; omnipotence, progressive science, and conservatism of religion. It is not difficult to notice that these issues are of particular importance for post-socialist, especially post-Soviet countries, including Ukraine. St. Luke (V.F. Voyno-Yasenetsky), Archbishop of Simferopol and Crimea during the years of militant atheism in the USSR, showed the groundlessness of the atheistic mythologem about the incompatibility of science and religion.

According to the archpastor, the needs for science and religion are the needs of the human spirit, which are rooted in the depths of human nature. If science is a system of attained knowledge about the phenomena of reality we observe, that is, the manifestations of life, nature, but not about its essences (phenomena, not noumena), then religion as a relation to the Absolute, God, communication with God (reunification) is a transcendental form of human comprehension of reality. For this reason alone, science cannot reject the existence of God, for this topic lies outside its competence, like the entire area of essences [31].

Approaches to the issues of the boundaries of scientific knowledge, "dangerous knowledge" [18, 19] overcoming the antagonism between the "world of faith and the world of science", the dialogue between science and religion today unite theologians not only of various Christian confessions but also of other humanistic religions. Indicative in this respect is the dialogue of Cardinal Jorge Mario Bergoglio (since 2013, Pope Francis) with Rabbi Abraham Skorka [3]. Sharing the opinion of A. Skorka about the autonomy of science, the establishment of a dialogue between religion and science, "which excludes the claims of one side to take the place of the other", Jorge Bergoglio notes that the autonomy of science should be respected and encouraged "...except when scientists go beyond their competence and interfere in the realm of the transcendent." "However, be careful: when the autonomy of science does not set limits itself and goes too far, it can lose control over its creation... Having fallen into the trap of his pride, a person creates monsters that can escape from his power" [3].

Concern about the uncontrolled development of scientific and technological progress, biomedical, information, and other technologies that open up the possibility of intrusion into the fundamental foundations of life, human nature, and his integrity as a person is also expressed by other Christian denominations. In 2000, at the Jubilee Council of Bishops, the social concept of the Russian Orthodox Church was adopted, which was the "authoritative conciliar response of the Church to the challenges of the new time", including the problems of bioethics, ecology (sec. XII, XIII) [22]. The appeal of the Orthodox Church to the problems of modern civilization, including the development of science and technology, is evidenced by the content of the document "For the life of the world. Towards the Social Ethos of the Orthodox Church", open for discussion (2019). "Perhaps the primary task of the Church, which seeks to comprehend the rapid development of technology in modern times and to gain a foothold as a place of spiritual stability in the face of a continuous stream of scientific and social changes, should be to overcome any obvious antagonism between the world of faith and the world of science" [8]. Therefore, the Orthodox Church opposes both any manifestation of religious fundamentalism and ideological "scientism", metaphysical "materialism".

The Christian spiritual tradition had a special influence on the formation and development of bioethics. In the context of this influence, as well as personalistic bioethics, common European values, we also consider the substantiation of the principles of bioethics in the international research project BIOMED II "Basic ethical principles in European bioethics and bio-law": individual autonomy, human dignity, integrity, and human vulnerability.

The rationale in bioethics of the principle of human dignity has largely supplanted the monopoly of the principle of autonomy since this principle has a more fundamental and universal significance. As it is known, the principle of autonomy provides for respect for the choice of a competent patient, that is, one who is capable of making reasonable decisions on his own and consciously guiding his actions. At the same time, the principle of human dignity reflects the objective self-worth of a person from his conception to the end of his life and justifies the need for a decent attitude towards him even in situations when a person, for some reason, is deprived of the opportunity to act autonomously. The general human content of this principle is quite clearly traced in secular bioethics. According to the definition of the Belarusian scientist T.V. Mishatkina, "dignity –

in a broad ethical context – is an intrinsic value that every person possesses by his birthright since he is a human" [4].

Christian spiritual tradition substantiates the uniqueness of the godlike dignity of man as a single creation in the world, created by God in his image and his likeness (Gen. 1:26). If a person received the "image" when it was created by God, which testifies to the reflection of the Divine nature of the Absolute in human nature, then a person must achieve "similarity" through perfection, transcendence, to meet our calling to become partakers of the Divine nature. The idea of the God-Man in Christianity reveals not only the "path from above": the descent of God to man through the Incarnation, but also the opposite path: the ascent of man to God, revealing to him the image of God in faith, love, virtues, moral actions and deeds, i.e. deification. "If the inalienable, ontological dignity of every human person, its highest value, is raised to the image of God in Orthodoxy, then life befitting dignity is correlated with the concept of the likeness of God, which, by Divine grace, is achieved through the overcoming of sin, the contraction of moral purity and virtues" [15]. Thus, the concept of human dignity has not only ontological but also deep spiritual-moral, transcendental content.

In the context of the Christian spiritual tradition, the principle of human dignity has a more fundamental and universal meaning than the principle of autonomy, since freedom is only one of the manifestations of the specific nature of man as a gift from God. According to the Catholic moral theologian and bioethicist Ignacio Carrasco de Paula, "the deepest foundation of human dignity is not that he is individual (unique and unrepeatable). And not that he is free (one to himself), but above all that he is transcendental: as the scholastics said, *capax Dei* (able to participate in God)" [12].

It is generally accepted that among Christian confessions a greater focus on personal autonomy is inherent in Protestantism. However, this provision requires clarification, taking into account the peculiarities of Protestant anthropology and ethics, in particular its fideicentrism. According to M. Luther, we are talking about Christian freedom (italics I.V., N.M., T.G., D.B.), which frees the human heart not only from all sins but also from laws and commandments. Such freedom is impossible without the help of divine powers, without Faith, which means unlimited love for God and His creatures. "...Through faith, the soul is made from the Word of God holy, righteous, true, peaceful, free and filled with all good" [11]. Therefore, we talk about the freedom of the "inner", spiritual person. The principle of individual autonomy is explicated by Protestant moral theologians in the context of the "ethics of responsibility", not only active but also moral, the sacred attitude of a person to all living things, which differs significantly from the interpretations of this principle in the liberal-radical model of secular bioethics.

The methodological significance in the development of bioethics has to do with life as an invaluable gift from God, which is characteristic of the Christian Eucharistic ethos. Orthodox theologian, Metropolitan John Zizioulas focuses on the initial understanding and implementation of the Eucharist as an expression of gratitude for the gift of being [33]. "And since everything, including our being, is a gift, we cannot help but assume that the giver is behind everything." This is the Eucharistic path to faith. With this way of thinking, atheism appears as a form of ingratitude, the absence of a Eucharistic ethos" [33].

Since life is a fundamental good for a person, the following will be a morally justified attitude towards it: directly - it should be an attitude of accepting life as a gift that must be cherished, nourished, and loved; indirectly – one must accept death when it becomes inevitable.

Catholic theology has given a special strength to this primary moral core, established the following criteria for it:

- 1) The principle of the sanctity of human life;
- 2) The principle of inviolability of innocent human life;

- 3) The principle of the inalienability of the right to life from the moment of conception to the natural end of life [12].

In the context of the Christian spiritual tradition, let us consider some controversial problems in bioethics related to the interruption of human life in its initial and final stages. Without exaggeration, one of the most acute problems of the modern secularized world is abortion. According to the WHO, about 40-50 million abortions are performed annually in the world: approximately 125 thousand abortions per day. The positive dynamics of artificial abortions of pregnancy can be traced in recent years in Ukraine. The number of abortions, according to the Ministry of Health of Ukraine in 2019, amounted to 74 thousand 606, of which 727 were done under the age of full [5].

As it is known, bioethical assessments of artificial termination of pregnancy are based on two fundamental issues: about the status of the human embryo; the relationship between the mother's right to autonomy, reproductive choice, and the right of the unborn child to life. Although, in our opinion, the current formulation of the issue of the status of the embryo, in the broad sense of this term, does not quite accurately reflect the essence of this problem in bioethics. After all, the emphasis on the embryo (a human being from 2 to 8 weeks of intrauterine development) leaves in the shadow the primary, pre-embryonic stage of development, the moral and ethical assessment, which distinguishes the Christian tradition not only from the moderate (graded) approach in secular bioethics but also from other religious versions.

Today, the common Christian position is the recognition of the inherent dignity and value of the human being from the moment of conception and including all subsequent stages of its intrauterine development. It should be noted that the formation of this approach in Christianity was largely facilitated by the development of science, in particular embryology, genetics. It is no coincidence that Pope Francis qualifies the problem of abortion primarily as a scientific problem. "It is unethical to hinder the further development of a creature that is already endowed with a full-fledged human genetic code... To have an abortion means to kill a defenseless one" [3].

Scientific research shows that from the moment the gametes merge, a new human being, which is provided with a new information structure, begins to act as an individual unity, controlled by its coordinating genetic system. This is a "new human cell", and therefore a "new human individual", which begins its life cycle, constantly develops under the appropriate external and internal conditions. Human genetic development does not include a change in his nature, but presupposes the manifestation of those capabilities and inclinations that he has from the very beginning [28].

It is possible to bring not only biological but also theological, philosophical arguments in favor of the possession of dignity by every human being from the moment of his conception. The principle of human integrity is of particular importance in the Christian spiritual tradition. Modern Christian and philosophical anthropology (M. Scheller, N. Berdyaev, V. Frankl, S. Krymsky, and others) emerge from the triadic model of man, according to which man exists in three dimensions: bodily, mental, and spiritual. The human body is not separate from itself. Pope John Paul II spoke of a "spiritualized body" and "an inculcated spirit" [16]. This approach was also developed by the outstanding Orthodox archpastors of the 20th century, the doctor Archbishop Luke (V.F. Voyno-Yasenetsky) and Metropolitan Anthony Surozhsky. Professor of medicine, V.F. Voyno-Yasenetsky, substantiating the inextricable relationship between the spirit, soul, and body of a person as a single entity, noted: "Every person receives and has the breath of the Holy Spirit. No one is born of the spirit of Satan", "...the spirit forms it in the embryonic state of the body. Spiritual energy is inherent in all cells of the body, for they are alive, and life comes from the Spirit" [32].

In general, there is a common Christian position concerning other debatable problems of bioethics associated with the

interruption of human life in the prenatal period: eugenic abortion, the use of assisted reproductive technologies, the use of embryonic stem cells in regenerative medicine, etc.

According to Catholic theologians, the identification of developmental defects or hereditary diseases of the fetus during prenatal diagnostics should not be the equivalent of his death sentence, since "...the embryo is inviolable, no one has the right to take his life, even if it develops incorrectly or is superfluous" [30]. This position is supported by representatives of Protestantism and Orthodoxy. As noted in the Fundamentals of the Social Concept of the Russian Orthodox Church, "Every person has the right to life, love and care, regardless of whether he or she has certain diseases. According to the Holy Scriptures, God Himself is the "intercessor of the weak" (Jud. 9.11). The Apostle Paul teaches "to support the weak" (Acts 20:35; Thess. 5.14); likening the Church to the human body, he points out that "members ... who seem to be the weakest are much more needed, and the less perfect need "more care" (1 Cor. 12.22.24). It is completely unacceptable to use the methods of prenatal diagnostics to choose the sex of the unborn child desirable for parents [22].

At the same time, this problem is extremely complex and causes a far from unambiguous attitude among the laity. This is evidenced, for example, by the mass protests of women in traditionally Catholic Poland against the prohibition of selective abortion in cases of detection of fetal defects. At one time, Metropolitan Anthony Surozhsky, based on his many years of medical, life, and pastoral experience, shared the canonical, moral, and purely medical aspects of this issue. In fact, this approach is traced in the document "For the life of the world. Towards the Social Ethos of the Orthodox Church", which notes that the Orthodox Church does not recognize the eugenic termination of a new human life as justified. At the same time, the Church cannot claim competence in how best to act in each specific case and must entrust this issue to the prayerful reflection of parents and doctors [9].

In recent years, there has been a tendency in Christianity for a more positive, realistic attitude towards the use of assisted reproductive technologies. Evaluations of artificial insemination as a "deadly sin" [10] increasingly inferior to differentiated approaches that take into account the medical and technological characteristics of specific methods, moral, ethical, social, and other consequences of its application. According to the head of the Synodal Department of the Ukrainian Orthodox Church for Healthcare and Pastoral Care of Medical Institutions, Metropolitan Filaret of Lviv and Galicia, if artificial insemination with the husband's sex cells can be attributed to acceptable methods of medical care since it does not violate the integrity of the marriage union, then in vitro fertilization causes significant violations of the moral order. First of all, natural processes are disrupted, which lead to the destruction of family ties during "fertilization in a test tube", and the status of embryos is also issued, since during IVF – fertilization more than 90% of human embryos die [26]. Given the latter, it is considered unacceptable from the standpoint of Christian morality and the receipt of stem cells from human embryos in regenerative medicine.

Euthanasia is one of the most controversial issues in biomedical ethics. At first glance, the very term "euthanasia" was introduced in the 17th century by F. Bacon (<gr. Ev – good, peaceable, Thanatos – death), i.e. "Blessed", painless death, etymologically corresponds to the very spirit of Christian ethics: the commandments of love, sympathy, and empathy for pain, the suffering of neighbor. Today, euthanasia, in one form or another, is legalized in many states, including Europe (Netherlands, Belgium, Luxembourg, etc.). To what extent does this phenomenon of secular society correspond to the Christian spiritual tradition?

In the encyclical *Evangelium Vitae*, euthanasia is defined as an action or inaction which, by its nature and intention, means killing a person to prevent suffering [16]. Thus, firstly, euthanasia is assessed as a violation of God's commandment:

"Thou shalt not kill"; secondly, active euthanasia is distinguished (intentional actions leading to the death of the patient through the use of special, medical preparations) and passive (inaction, i.e., the termination of artificial maintenance of vital functions of the body in connection with the hopeless state of the patient). The separation of these types of euthanasia is of fundamental importance since their moral assessments differ significantly in the modern Christian world. As Pope Francis notes, "Our morality recommends, in cases where the end is imminent, limiting oneself to necessary, simple measures... The great power of medicine in hopeless situations is not so much that the patient should live three days or two months longer, but that his body should suffer as little as possible. A person is not obliged to preserve life by extraordinary methods. This can degrade his dignity. Active euthanasia is another matter: this is already murder" [3].

As already stated, the Christian ethos is distinguished by the Eucharist, the acceptance with gratitude of life as a gift of God. Only God by his will bestows and takes life away from a person. As the Holy Scriptures say: "...There is no God but Me: I kill and give life, I smite and I heal, and no one will deliver from my hand" (Deuteronomy 32:| 39). J. Stott, a recognized leader of the modern evangelical movement, noted that religious freedom provides for life in harmony with nature, given to us by God, and "not in rebellion against it, and the concept of full autonomy of man is considered a "myth" [25]. Therefore, various forms of active euthanasia are a manifestation of human pride in his striving to become like God, invading the sacred spheres of life, subject only to the Creator. This leads to the desacralization of human life and human dignity.

4 Discussion

In the works of foreign and Ukrainian scientists, different approaches to the definition of the subject of bioethics are traced. Moskalenko and Popov identify and critically analyze the following positions: consideration of bioethics as a new philosophical discipline; assessment of bioethics as a section of applied ethics [13]. However, the most common are approaches that equate bioethics with medical or biomedical ethics.

American physician, founder of the Kennedy Institute of Ethics A. Hellegers viewed bioethics as *maieutics*, that is, a science that can explain values through a dialogue between medicine, philosophy and ethics [27]. E. Pellegrino and D. Thomsma, focusing on the doctor-patient relationship, defined bioethics as medical ethics that preserves the traditions of Hippocrates and denies medical paternalism [17]. S. Spinsanti considered bioethics as a continuation of medical ethics [24]. It is not difficult to notice that the principles that have become classical today, developed by American scientists T. Beauchamp and J. Childress, can be considered as bioethical only if bioethics and biomedical ethics are identified.

These approaches to bioethics, predominantly in a medical context, dominating in the scientific tradition of the United States, were later adopted by scientists from other regions, including the countries of Eastern Europe (I.V. Siluyanova, P.D. Tishchenko, G.T. Tereshkevych, etc.). The well-known Russian scientist P.D. Tishchenko defines bioethics as an interdisciplinary field of knowledge that covers a wide range of philosophical and ethical problems that arise in connection with the rapid development of medicine, biological sciences, and the use of high technologies in healthcare [29].

One of the first to raise the issue of the need to demarcate bioethics and biomedical ethics based on the principle of the relationship between the general and the singular was raised by the Belarusian researchers T.V. Mishatkina, S.D. Denisov, Ya.S. Yaskevich. "Bioethics is a practical ethics focused on the development and establishment of a morally understanding attitude to Life in general and any Living One, to caring for the rights of the bios based on the Schweitzer principle of reverence for life; biomedical ethics – applied ethics, the subject of which is the moral attitude of society as a whole, professionals-physicians and biologists – to a person, his life, health, death,

both in the process of treatment and in the course of the research conducted with his participation" [4].

Approaches to bioethics in a wide context, different from the subject field of biomedical ethics, as one of its directions, can be traced in the works of Ukrainian researchers (V.L. Kulinichenko, S.V. Vekovshinin (Pustovit), N.V. Popov, I.V. Vasiliev, V.G. Napadista and others). According to S.V. Pustovit's definition, bioethics is an interdisciplinary branch of knowledge and human practice, the purpose of which is the preservation and development of life using ethical mechanisms and principles [20].

Considering the complex, systemic nature of the problems of preserving life, including human life and health in the conditions of modern technogenic civilization, it should be noted that the use of bioethical approaches is of great importance today not only in medicine and health care but also in the regulation of other spheres of society: economic, social, legal, educational system, etc. [1]. For example, the VII National Congress on Bioethics (Ukraine, Kyiv, September 30 - October 2, 2019) raised issues of urban bioethics (T.V. Gubenko, V.A. Smiyarov), bioethical aspects of journalism (Yu. Dमितenko), medical tourism (E.E. Petrovsakaya, A.B. Zhabinskaya), sports (G.V. Korobeinikov, L.G. Korobeinikova, V.S. Mishenko) and others [14].

One of the topical subjects of modern philosophical and bioethical discourse is the problem of the relationship between science and religion, secular bioethics, and religious, in particular Christian moral and ethical approaches. In approaches to this issue, a very wide range of assessments is observed - from accusations of representatives of Christianity in "biological conservatism" to attempts to synthesize secular ethics and theology, orthodox Christian faith [7, 6]. Noting the vital importance of the Christian spiritual tradition in the formation and development of bioethical approaches, it should be borne in mind that today the tendency of globalization of bioethics as a sociocultural phenomenon increases. The creation of various "models" of bioethics, mainly on religious and confessional foundations, can become a new conflict-generating factor in the modern unstable polycultural, polycentric world. Further development of bioethics, in our opinion, is associated not with the "fusion of Christian and secular ethics," but with the deepening of a multi-vector dialogue: between theologians and representatives of secular science; between Christians of different denominations; between Christendom and non-Christian religions; between the Church and the state, society, since the issues of bioethics and biosafety affect the interests of every person in the modern world.

5 Conclusion

The Christian spiritual tradition, being open to the realities of the modern world, the achievements of science, culture, is in constant development, updating doctrinal approaches. At the same time, it is distinguished by a universal system of values and moral norms, based on the main commandment of Christianity – absolute love, respect for human dignity, sacredness, and inviolability of life from conception to natural death. This determines the special significance of the Christian ethos not only in determining the attitude towards the most controversial problems of bioethics associated with the beginning and end of human life but also in counteracting relativistic, scientist-technocratic, and liberal-radical approaches, consumer attitude towards man and his life.

Literature:

1. Abolina, T.G. Vasilieva, I.V., & Yermolenko, A.M. (2013). Bioethics and biomedical ethics. *Theoretical problems of modern ethics*. A textbook for university students, 2nd ed. reworked and add. Kyiv: PH "Avicenna", 189-209, 190-191.
2. Alexander, D.R. (2017). *Models of the relationship between science and religion*. Available at: <http://www.st-edmunds.cam.ac.uk>.

3. Bergoglio, J. & Skoroka, A. (2017). *In heaven and on earth*. Translated by D. Karateev. K.: Spirit and Letter, 264.
4. Bioethics. (2011). *Bioethics: dictionary-reference*. Compiling editor - T.V. Mishatkina. Minsk: Prospect plus, 186.
5. Catholic Observer. (2020). *Last year, Ukrainian women performed more than 74,000 abortions, according to official data from the Ministry of Health*. Available at: <http://catholicnews.org.ua/toric-ukrayinki-zrobili-ponad-74-tis-abortiv-oficijni-dani-moz>.
6. Engelhardt, T.H. (2000). *The foundation of Christian bioethics*. Lisse: Swets & Zeitlinger Publishers, 438.
7. Fletcher, J. (1966). *Situation ethics. The new morality*. Louisville: Westminster John Knox Press, 176, 283.
8. Greek Orthodox Archdiocese of America. (2020). *For the life of the world*, 8, 71. Available at: <http://www.goarch.org/social-ethos>.
9. Greek Orthodox Archdiocese of America. (2020). *Towards the Social Ethos of the Orthodox Church*, 8, 26. Available at: <http://www.goarch.org/social-ethos>.
10. Lisets, A. (2013). Problems of medical ethics in the context of Christian morality. *Eastern European Journal of Public Health*, Special Issue, 91-97.
11. Luther, M. (2013). *On the freedom of a Christian*. Ufa: Publishing house "ARC", 81.
12. Melina, L., Herr, T., Carrasco de Paula, I., Bonandi, A., & Bresciani, C. (2007). *Moral action of a Christian*. Under the general supervision of L. Melin. M.: Christian Russia, 324.
13. Moskalenko, V.F. & Popov, M.V. (2005). *Bioethics: philosophical-methodological and socio-medical problems*. Vinnytsia: New Book, 218.
14. National Congress of Bioethics. (2019). VII National Congress of Bioethics dated on September 30 - October 2, Kyiv, Ukraine. K.: National Academy of Sciences of Ukraine, National Academy of Medical Sciences of Ukraine, Ministry of Health of Ukraine, 158.
15. Orthodoxy and Problems of Bioethics. (2008). *Fundamentals of the Teaching of the Russian Orthodox Church on Dignity, Freedom and Human Rights*. Moscow, June 26, M.: LLC "Format", 123-144.
16. Paul, J. (1995). *II Encyclical Letter Evangelium Vitae*. Vatican, 190.
17. Pellegrino, E.D. & Thomasma, D.C. (1988). *For the patient's good. The restoration of beneficence in health care*. New York: Oxford University Press, 19-29.
18. Potter, V.R. (1988). *Global Bioethics Building on the Leopold Legacy*. Michigan: Michigan State University Press, 203.
19. Potter, V.R. (2002). *Bioethics: a bridge to the future*. S.V. Vekovshinina and V.L. Kulinichenko (Eds.). Kyiv: Publishing House "Vadim Karpenko", 216.
20. Pustovit, S.V. (2009). *Global bioethics: the formation of theory and practice (philosophical analysis)*. K.: Arcturus, 2009, 22, 324.
21. Razumkov Centre. (2019). *State and Church in Ukraine - 2019: Results of the year and prospects for the development of relations (information materials)*. Kyiv: Razumkov centre, 70. Available at: <https://razumkov.org.ua/uploads/article/2019Religiya.pdf>
22. Russian Orthodox Church. (2008). Foundations of the social concept of the Russian Orthodox Church. Available at: <http://www.patriarchia.ru/db/text/419128.html>.
23. Sandor, J. (2020). Bioethics for Pandemic. *Project Syndicate*. Available at: <https://www.project-syndicate.org/commentary/bioethics-principles-for-covid19-response-by-judit-sandor-2020-05/russian>.
24. Spinsanti, S. (1987). *Etica bio-medica*. Milano: Paoline, 5-28.
25. Stott, J. (2004). *New Problems of Christians*. Cherkassy: SMIRNA, 685.
26. Synodal Department of the Ukrainian Orthodox Church. (2010). Report of Metropolitan Filaret on the Church's view on the technologies of Regenerative Medicine. *Church's view on modern and latest technologies in medicine. Regenerative medicine*. Available at: http://www.orthodox-medical.org.ua/ind ex.php?option=com_content&view=article&id=182:2010-09-26-17-06-17&catid=26:2010-03-09-08-26-52&Itemid=33.
27. Tereshkevych, G.T. (2014). Fundamentals of bioethics and biosafety. Ternopil: TNMU, 400.

28. Tereshkevych, H. & Vasylyeva, I. (2012). The problem of unborn human status in the context of bioethics: public and legal aspect. Efficiency of public administration. *Collection of academic papers of Lviv Regional Institute of Public Administration of National Academy of Public Administration office of the President of Ukraine*. Edited by the corresponding member, V. Zagorski, assistant professor - A. Lipentseva. Lviv: Publisher LRIPA NAPA, 30, 90-96.
29. Tishchenko, P.D. (2001). Bioethics. *Encyclopaedic Dictionary of Ethics*. Edited by R.G. Apresyan and A.A. Huseynov. M.: Gardariki, 39-41.
30. Vatican. (1987). The gift of life: Instruction on Respect for Human Life in its Origin and on the Dignity of Procreation Replies to certain questions of the day. Available at: http://www.vatican.va/roman.curia/congregations/cfaith/documents/rc_con_cfaith_doc_19870222_respect-for-human-life_en.html.
31. Voino-Yasenetsky, V.F. (2009). *(Saint Luke) Science and religion*, 2nd ed. Simferopol: Simferopol City Typography (SCT), 33, 41.
32. Voino-Yasenetsky, V.F. (2010). *(Saint Luke) Spirit, soul, and body*. K.: PH "Avicenna", 208.
33. Zizioulas, J. (2012). Communication and otherness. New essays on personality and church (translated from English). *Series "Contemporary Theology"*. M.: Publishing House BBI, 12, 407.

Primary Paper Section: A

Secondary Paper Section: AA

D EARTH SCIENCES

DA	HYDROLOGY AND LIMNOLOGY
DB	GEOLOGY AND MINERALOGY
DC	SEISMOLOGY, VOLCANOLOGY AND EARTH STRUCTURE
DD	GEOCHEMISTRY
DE	EARTH MAGNETISM, GEODESY, GEOGRAPHY
DF	PEDOLOGY
DG	ATMOSPHERIC SCIENCES, METEOROLOGY
DH	MINING INDUSTRY INCLUDING COAL MINING AND PROCESSING
DI	POLLUTION AND AIR CONTROL
DJ	POLLUTION AND WATER CONTROL
DK	CONTAMINATION AND DECONTAMINATION OF SOIL INCLUDING PESTICIDES
DL	NUCLEAR WASTE, RADIOACTIVE POLLUTION AND CONTROL
DM	SOLID WASTE AND ITS CONTROL, RECYCLING
DN	ENVIRONMENTAL IMPACT ON HEALTH
DO	PROTECTION OF LANDSCAPE

GEOINFORMATION MODELING AS A FUNDAMENTAL METHOD OF COGNITION

³LIDIYA PRYMAK

*Kyiv National University of Construction and Architecture, 31, Povitroflotsky Ave., 03037, Kyiv, Ukraine
email: "Lidiya.plyska@gmail.com"*

Abstract: The article aims to analyze and disclose geoinformation modeling and its types. It describes geoinformatics as a tool for understanding the surrounding world. The differentiation of geoinformatics into general and applied is given – geoinformation approach and geoinformation analysis as scientific methods of geoinformatics. General geoinformatics is the fundamental science. Applied geoinformatics solve technological problems in the subject area. The concepts of geoinformation modeling and systematic approach to geoinformation modeling are described. The necessity of using information units as a basis for modeling is shown. Digital modeling is represented as an essential component of geoinformation modeling.

Keywords: Cognition, Digital modeling, Fundamental method, Geoinformatics, Geoinformation modeling.

1 Introduction

Geoinformatics is a relatively young science that combines geosciences and computer science. As a technological science, it has developed significantly over time and is currently distinguished in two directions: fundamental science and applied. The fundamental part is called the general geoinformatics, or fundamental geoinformatics [23]. The applied part was formed as applied geoinformatics and solves technological problems in the field of earth sciences and transport, management, and global monitoring. Fundamental geoinformatics interacts with many scientific directions. Its expertise includes set-theoretic analysis, systems analysis, topology, qualitative analysis, various types of statistical analysis, image processing theory, modeling theory, and database theory. This part of geoinformatics is integrated with areas of artificial intelligence [9].

Fundamental and applied geoinformatics explores spatial relationships and spatial knowledge. Both geoinformatics can be considered as a method of cognition of the surrounding world.

Models serve as the basis for information processing in information technologies and systems [2]. The models are widely used in applied research. Modeling creates the possibility of replacing an experiment with mathematical or information manipulations and transferring the results of modeling to the study object. It is the applied value of modeling.

The interdisciplinary significance of modeling lies in the ability to transfer knowledge [29]. Logical and systemic modeling can serve as a criterion for verifying the truth of knowledge. Technologically, modeling is associated with constructing models and creating new modeling methods for new phenomena and objects. In the course of the variety of existing and emerging models, it becomes necessary to generalize models and modeling and create models that could effectively carry out the construction of models and their analysis. One of these generalized modeling technologies is geoinformation modeling.

2 Literature Review

The transition of individual countries and all humanity to an information society means that most of the population works to produce information and information services. A significant part of the community will be a consumer of information products and services. In these conditions, the importance of working with information, information technology, and information resources is increasing. This skill can be summed up in one term, "information modeling" [28].

Currently, technologies for using spatial information are relevant for management and production [17]. A large amount of data has been accumulated as a result of the activities of various geodetic enterprises [18]. However, the large volume and lack of

structuredness of the reserved spatial data set create an information barrier and sometimes impede this practical use. The way out of this situation is seen in developing technologies that increase the efficiency of using spatial data. Such technology is geoinformation modeling [27].

Considering integration as a profound process of informatization of society, we can say that informatics and geoinformatics are the basis for integrating the information society. In these conditions, geoinformation modeling becomes the key to mastering and understanding the surrounding world [36].

The ability to work with spatial information means using information resources and computing facilities with maximum efficiency. In current conditions, information resources are a set of information models. Geoinformatics is based on the integration of different sciences, and information processing in geoinformatics is based on models. Therefore, geoinformation modeling is critical in the chain of geoinformation and geodata processing.

3 Materials and Methods

Geoinformation modeling has several types: it is modeling using digital models, spatial data models, using GIS, using geodata, and geoinformation. Common to these types is the use of three integrated data groups, "place," "time," "topic."

Most of the processing methods used in information technologies are based on the concept of an information model - a specific, purposeful formalized display of the existing economic information system with the addition of certain elements that characterize the control system and the controlled object [8]. The majority of processing spatial information methods are based on the concept of a geoinformation model and geoinformation modeling.

3.1 Principles of Geoinformation Modeling

Geographic information modeling provides a formalized representation (algebraic, graphical, etc.) of the data used and their relationships. Therefore, the modern ability to work with information means the ability to carry out geoinformation modeling. Thus, geoinformation modeling can be considered as modern information technology. It includes the ability to create various information models, interpret and apply them [10].

Geoinformation model contains several levels of description: subject, associated with the field of information processing; systemic, related to methods of organization and methods of the processing; fundamental, determined by choice of basic data models, independent of the scope of the information model.

The transition from information to information resources requires a change from a set of data to a group of interrelated models, which have the property of resources. It distinguishes data models from information resource models. Thus, geoinformation modeling requires the ability to work with spatial information as with data and make a qualitative transition from information models to resource ones, from resource to intelligent ones. For this reason, we can say that geoinformation modeling is the basis for creating information resources [23].

This approach defines two concepts in teaching geoinformatics. The first is to train qualified users in the field of geographic information technologies and systems. The second is to change the methodology for applying geoinformatics. It requires a transition from reproductive to creative didactics. It means that the teaching technology based on the replication and transfer of knowledge should be replaced by the teaching technology based on creativity and the development of students' ability to create new knowledge based on the already known ones. The second teaching concept defines geoinformation modeling as a technology for manipulating information and creating new knowledge on this basis.

Geoinformation modeling is based on certain concepts: basic concepts, classification, spatial relationships, systems approach, structural analysis, building information units, choosing transformation methods. The basic concepts are the object of modeling and the method of modeling.

The modeling object can be an object of the surrounding space, an object model, a data set, a system, a process, a problem solution, a predictive estimate, etc. [4, 38]. The modeling method can also be varied. It is determined by a set of permissible conditions and rules for implementing transformations over modeling objects.

In the framework of the entity-relationship model, developed by Steve Chen, the modeling object can be viewed as an "entity," and the modeling method is a "relationship" between different modeling objects' information forms. Classification means, first of all, the definition of classes (subclasses, groups) of models and transformations over them, the definition of the properties of classes and restrictions.

The concept of relations means the definition and selection of classes of relations between objects of modeling such as: spatial, temporal, functional, logical, probabilistic, organizational, quantitative, qualitative. Relationships reflect the multidimensionality of objects and the connections between them. Individual relationships become dominant in specific subject areas. For example, in geoinformatics, spatio-temporal relations become dominant.

3.2 Geoinformatics and Philosophical Approach

Philosophy can generalize various theoretical directions, and this is included in its tasks. It is directly related to the field of information science. Geoinformatics arose as a science-based on the generalization of earth sciences and determined its capabilities in conception and brings it closer to philosophy in this part. Philosophical research helps to carry out the interdisciplinary transfer of knowledge. Geoinformatics implements a multidisciplinary transfer of knowledge [19]. It brings it closer to philosophy in this part too.

The study of the surrounding world includes:

- The study of meaning;
- The study of the process of cognition;
- The analysis of the objectivity of cognition.

It can be done using a philosophical approach. In geoinformatics, based on the study of knowledge using geoinformatics methods, the geoinformation approach and geoinformation analysis as cognition methods are characteristic only for geoinformatics.

Exploration of the surrounding world includes gaining new knowledge [32]. A generalized analysis of new knowledge can be carried out using a philosophical approach. Geoinformatics aims to acquire new knowledge. In doing so, it created new types of knowledge and the existing ones: spatial knowledge and geoscience. The development of geoscience ideas led to the emergence of a new type of expertise - cosmic knowledge.

The work notes the coexistence in real life of two worlds: scientific and every day. There is a gap between these worlds, which philosophy must overcome based on generalization and analysis. Geoinformatics, as a cognitive tool, like philosophy, provides a connection between these worlds.

Thus, geoinformatics as a cognition tool allows one to obtain new knowledge and is a very close science to philosophy in terms of generalization of spatial information and research of real space.

3.3 Geoinformatics and Informatics

Computer science is also a cognitive tool. However, despite fundamental and applied informatics, it is closer to technology than to philosophy, in comparison with geoinformatics due to the lack of a continuous relationship between these sciences. It is

most clearly manifested in education. In education, geoinformatics is associated primarily with geodetic knowledge, and secondly, with informatics. Geodetic education trains specialists in geodesy, photogrammetry, cartography, remote sensing of the Earth [3], land use [1], property management, geography, and geology. It does not train computer science specialists. Conversely, computer scientists do not have a continuation in geoinformatics (Figure 1).

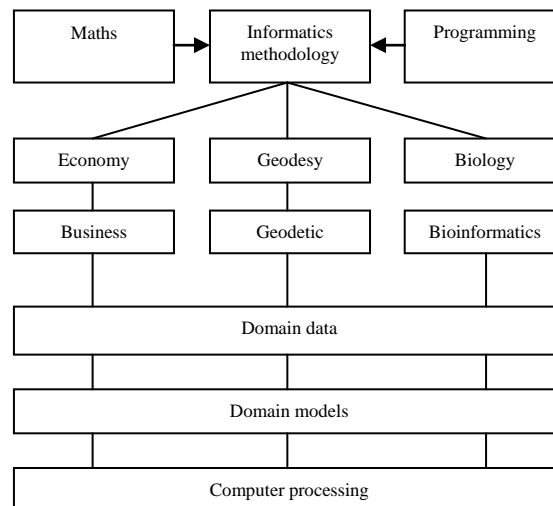


Figure 1 – Interaction of informatics and other sciences

Informatics appears twice in this scheme, at the methodological level (upper level) and the computer processing level (lower level). Each modified computer science processes its data independently. That is, there is fragmentation in processing.

For all directions, domain data is transformed into domain models. Domain models contain the specifics of this domain area [5]. But for processing, these different models are converted into generic computer models that are processed. As a result of processing, specialized data sets are obtained for each subject area.

Unlike computer science, which has two origins, geoinformatics has four sources of origin (Figure 2).

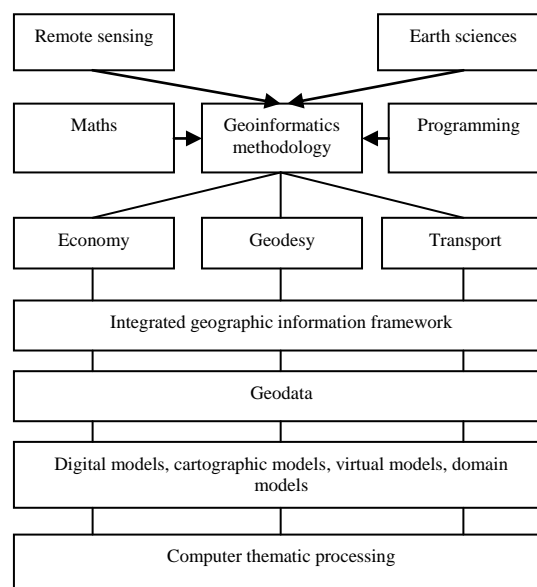


Figure 2 – Interaction of geoinformatics with other areas

The basis for the integration of geoinformatics was CAD technology as a system of integrated graphical information

processing. With this technological integration, it became possible to integrate geosciences organizationally into a single system. This integrated system of earth sciences came to be called geoinformatics.

The application of geoinformatics creates complementary datasets available for exchange and complex analysis, including systems analysis. It emphasizes the systemic essence of geoinformatics at the input stage of processing and at the output level - organizing data and models.

4 Results

The systems approach requires an abstract consideration of modeling and connections objects based on the generalized use of the concept of "systems." This concept can be designated, object, process, data set, model. System analysis reveals the most common parts of the structure, connections, and relationships between the "system" elements, the concept of system elements can define all this [16]. The identified elements serve as the basis for further detailing of the "system."

Further detailing is carried out by structural analysis, which is carried out not at the level of abstractions but at the level of functions. The structural analysis allows you to represent the modeling object's structure as a set of functional blocks that transform information models [20]. Unlike systems analysis, which works with abstracted data, structural analysis works with real data. It requires the consolidation of a variety of real data and information flows into a single system. Such a unified system, called an information base, requires the selection of information units. Examples of such information units are conventional signs in cartography. The set of symbols on the map carries an information message that is understandable to a specialist [15].

With a more general approach, one can speak of a "sign" as a kind of information unit. The complete set of signs forms the alphabet and obeys a certain grammar. A message composed of such signs has value or usefulness. The information items selected in the information modeling process must obey certain rules – syntax [33].

5 Discussion

Geoinformation modeling, regardless of the field of application, should meet certain concepts and should be aimed at displaying and studying the surrounding reality. Explanations of the content of geoinformation modeling can be shown using paradigmatic relations [12]. The process of studying objects of the surrounding world can be simplified in the form of the following relations:

object → content → display.

When using geoinformation modeling, this process is interpreted as:

spatial object → essential features and spatial relationships → geoinformation model.

A feature of geoinformation modeling is its reliance on spatial relationships. A quality of geoinformation modeling is the use of visual modeling. Sign geoinformation modeling is used for visualization. In sign geoinformation modeling, the models are sign formations of any kind: maps, diagrams, graphs, drawings, formulas, graphs, conventional signs, tiles, etc. [13].

When studying phenomena or processes, when revealing latent connections, mathematical modeling is preferable [21]. A mathematical model is a set of formal descriptions (formulas, equations, inequalities, logical conditions) that reflect the real process of changing an object's state depending on various external and internal factors. A feature of geoinformation mathematical modeling is the use of topology and spatial data.

In the study of spatial objects, digital modeling is widely used. In computer science and geoinformatics, digital modeling is about realizing mathematical methods and software capabilities for modeling objects [31].

In the broadest sense of the word, a digital model (DM) is a discrete information model formed for processing on a computer. The digital model is a computer-oriented model. In this sense, it is a generalization of the data-logical and physical model.

In the narrow sense of the word, a digital model is a discrete model of spatial objects, in which one of the required parameters are: coordinates, dimensions, dimensions, coordinate accuracy, scale, etc. Naturally, this model is intended for processing information or geoinformation technologies.

The decisive factor in the digital model's name is that it is formed in a digital code that is perceived by a computer and can be processed on this basis [11]. Digital models can have a hierarchical, relational, network, or complex model as a structural basis [24]. They can be stored in databases or as file structures [25]. Digital models are most widely used in geoinformatics, design, construction, architecture, ecology, etc. [7, 26]

5.1 Formation of Geoinformation Resources

Modern sciences related to information processing receive and form information resources. New information resources include various objects: information models, technologies, databases, knowledge, and information systems. Information systems are subdivided into systems: information retrieval, information processing, information storage, knowledge transfer, training, communications, presentation.

Geoinformatics creates geographic information resources, including geodata, information, digital models, digital maps, databases, information models, processing methods, knowledge, geosciences, and technological systems. It is characteristic that geodata, digital models, digital maps, and geoscience are classified as interdisciplinary resources since they are used in geoinformatics and other areas, such as transport and management [22]. One of the new types of geographic information resources of national importance is the spatial data infrastructure.

It should be noted that geographic information resources are used in education as educational information resources [6]. Such an information resource contains knowledge that is divided into two parts: general scientific and professional. The professional is associated with a specific specialty. Broad scientific knowledge is the knowledge that helps to create an available scientific picture of the world. When using geoinformation resources, interactive or heuristic information processing is of great importance. It is usually used in GIS. For the life cycle, software support is essential, which increases the life cycle of the resource. Heuristic information processing also extends the life cycle. There are such technologies in geoinformatics: updating maps, updating databases, and data banks. In geoinformatics, there is a continuity in software updates [19].

Due to this, geoinformation resources have a long life cycle, and subject models using these resources also increase their life cycle due to an increase in geoinformation resources' life cycle. It creates the effect of integrating information resources of other subject areas with geographic information resources [14]. It underlines the integration effect of geoinformatics concerning other sciences.

6 Conclusion

On a global scale, geoinformatics is a tool for studying global processes and globalization. The concept of "globalization" denotes a wide range of phenomena. Still, at the same time, two main aspects are used: socio-economic problems caused by the development of globalization and technogenic processes caused by globalization's influence [37]. Geoinformatics covers both

aspects. In this way, it plays an integrating role for sciences that investigate and influence globalization processes [30]. Geoinformation models and geoinformation modeling serve as the basis for studying the surrounding world and building a world picture [33]. Geoinformation modeling is based on the use of a resource approach and resource models. Then it has the property of improvement and constant modernization. Informational modeling is based on concepts, which is determined by developing information technologies and technical means. It ensures the continuity and long life cycle of information modeling in the face of rapid changes in hardware and software [34]. Thus, geoinformation modeling and its main form - digital modeling - allow solving a wide range of problems that cannot be solved using other modeling methods.

Geoinformatics is the next step in the development of sciences and a new method of cognition of the surrounding world. The development of geoinformatics applications makes it possible to obtain results that cannot be obtained in applied fields. Geoinformatics creates special and interdisciplinary information resources that can be applied in various fields. Geoinformatics brings analysis methods to different fields. In terms of data organization, geoinformatics introduces a new type of data – geodata [35]. They are a system resource. The integration of geoinformatics with other sciences contributes to the interdisciplinary transfer of knowledge and these sciences' development.

Literature:

- Ahmed, O.S., Franklin, S.E., Wulder, M.A., & White, J.C. (2015). Characterizing stand-level forest canopy cover and height using Landsat time series, samples of airborne LiDAR, and the Random Forest algorithm ISPRS. *J. Photogramm. Remote Sens.*, 101, 89-101.
- Alexander, C., Korstjens, A.H., & Hill, R.A. (2018). Influence of micro-topography and crown characteristics on tree height estimations in tropical forests based on LiDAR canopy height models. *Int. J. Appl. Earth Obs. Geoinf.*, 65, 105-113.
- Ball, J.E., Anderson, D.T., & Chan, C.S. (2017). Comprehensive survey of deep learning in remote sensing: theories, tools, and challenges for the community. *J. Appl. Remote Sens.*, 11, Art. 042609.
- Bondur, V.G. (2016). Space Geoinformatics. *Prospects for Science and Education*, 1, 17–21.
- Buchhorn, M., Smets, B., Bertels, L., Lesiv, M., Nandin-Erdene, T., Herold, M., & Fritz, S. (2015). Copernicus Global Land Service: Land Cover 100m: Epoch. *Globe. Zenodo*, 2.0.2.
- Butko, E.Ya. (2015). Formation of information educational resources. *Educational resources and technologies*, 4(12), 17–23.
- Christin, S., Hervet, É., & Lecomte, N. (2019). Applications for deep learning in ecology. *Methods Ecol. Evol.*, 10, 1632–1644.
- Claverie, M., Ju, J., Masek, J.G., Dungan, J.L. Vermote, E.F., Roger, J.-C., Skakun, S.V., & Justice, C. (2018). The Harmonized Landsat and Sentinel-2 surface reflectance data set. *Remote Sens. Environ.*, 219, 145-161.
- Hill, L. (2009). *Georeferencing: The Geographic Associations of Information*. Cambridge, Massachusetts, London, England: MIT Press, 272.
- Ivannikov, A.D., Kulagin, V.P., Tikhonov, A.N., & Tsvetkov, V.Ya. (2005). *Applied Geoinformatics*. M.: MAKSPress, 360.
- Karpinsky, Yu.O. & Prymak, L.V. (2020). Calculation of accuracy of raster data on losses of the amplitude of a radio signal by means of geomatics. *Collection of scientific works "Modern achievements of geodetic science and production"*, 1(39), 96 - 102. doi: www.doi.org/10.33841/1819-1339-1-39-16.
- Kudzh, S.A. & Tsvetkov, V.Ya. (2013). Geoinformatics Ontologies. *European Researcher*, 62(11-1), 2566–2572.
- Kudzh, S.A. (2013). On the philosophy of information. *Prospects for science and education*, 6, 9–13.
- Kussul, N., Lavreniuk, M., Skakun, S., & Shelestov, A. (2017). Deep learning classification of land cover and crop types using remote sensing data. *IEEE Geosci. Remote. Sens. Lett.*, 14, 778-782.
- Lang, N., Schindler, K., & Wegner, J.D. (2019). Country-wide high-resolution vegetation height mapping with Sentinel-2. *Remote Sens. Environ.*, 233, Art. 111347.
- Lary, D.J., Alavi, A.H., Gandomi, A.H., & Walker, A.L. (2016). Machine learning in geosciences and remote sensing. *Geosci. Front.*, 7, 3-10.
- Li, D., Guo, H., Wang, C., Li, W., Chen, H., & Zuo, Z. (2016). Individual tree delineation in windbreaks using airborne-laser-scanning data and unmanned aerial vehicle stereo images. *IEEE Geosci. Remote Sens. Lett.*, 13, 1330-1334.
- Luo, S.Z., Wang, C., Xi, X.H., Nie, S., Fan, X.Y., Chen, H.Y., Ma, D., Liu, J.F., Zou, J., Lin, Y., & Zhou, G.Q. (2019). Estimating forest aboveground biomass using small-footprint full-waveform airborne LiDAR data. *Int. J. Appl. Earth Obs. Geoinf.*, 83.
- Maierov, A.A. (2012). State and development of geoinformatics. *Earth Sciences*, 3, 11–16.
- Markus, T., Neumann, T., Martino, A., Abdalati, W., Brunt, K., Csatho, B., Farrell, S., Fricker, H., Gardner, A., Harding, D., Jasinski, M., Kwok, R., Magruder, L., Lubin, D., Luthcke, S., Morison, J., Nelson, R., Neuenschwander, A., Palm, S., Popescu, S., Shum, C.K., Schutz, B.E., Smith, B., Yang, Y., & Zwally, J. (2017). The Ice, Cloud, and land Elevation Satellite-2 (ICESat-2): science requirements, concept, and implementation. *Remote Sens. Environ.*, 190, 260-273.
- Moran, P.A. (1950). Notes on continuous stochastic phenomena. *Biometrika*, 37, 17-23.
- Neuenschwander, A.L. & Magruder, L.A. (2019). Canopy and terrain height retrievals with ICESat-2: a first look. *Remote Sens.*, 11, 1721.
- Ozherelyeva, T.A. (2016). Geological. *International Journal of Applied and Fundamental Research*, 5(4), 669–669.
- Prymak, L.V. (2018). The main requirements for topographic components for the purposes of radio network planning and optimization. *Scientific and technical collection "Engineering Geodesy"*, 65, 158 - 168.
- Prymak, L.V. (2019). The use of DEM open data sources for the purposes of radio network planning and optimization. *Scientific and technical collection "Engineering Geodesy"*, 66, 95 - 104. doi: <https://doi.org/10.32347/0130-6014.2019.66.95-104>.
- Prymak, L.V. (2020) On the issue of GIS technology to produce an accurate vegetation clutter height for the purposes of LTE and 5G radio network planning and optimization. *Collection of scientific works "Modern achievements of geodetic science and production"*, 2(40), 78 - 85. doi: www.doi.org/10.33841/1819-1339-2020-2-40-78-85.
- Reichstein, M., Camps-Valls, G., Stevens, B., Jung, M., Denzler, J., & Carvalhais, N. (2019). Deep learning and process understanding for data-driven Earth system science. *Nature*, 566, 195-204.
- Rozenberg, I.N. & Tsvetkov, V.Ya. (2009). The Geoinformation approach. *European Journal of Natural History*, 5, 102–103.
- Sankey, T., Donager, J., McVay, J., & Sankey, J.B. (2017). UAV lidar and hyperspectral fusion for forest monitoring in the southwestern USA. *Remote Sens. Environ.*, 195, 30-43.
- Savinych, V.P. (2016). On the Relation of the Concepts of Space Knowledge, Knowledge of the Spatial. *Russian Journal of Astrophysical Research*, Series A, 2(1), 23–32.
- Shang, R. & Zhu, Z. (2019). Harmonizing Landsat 8 and Sentinel-2: a time-series-based reflectance adjustment approach. *Remote Sens. Environ.*, 235, Art.111439.
- Stovall, A.E.L., Shugart, H., & Yang, X. (2019). Tree height explains mortality risk during an intense drought. *Nat. Commun.*, 10, 4385.
- Suess, S., Van der Linden, S., Okujeni, A., Griffiths, P., Leitão, P.J., Schwieder, M., & Hostert, P. (2018). Characterizing 32 years of shrub cover dynamics in southern Portugal using annual Landsat composites and machine learning regression modeling. *Remote Sens. Environ.*, 219, 353-364.
- Tian, X., Li, Z., Chen, E., Liu, Q., Yan, G., Wang, J., Niu, Z., Zhao, S., Li, X. & Pang, Y. (2015). The complicate observations and multi-parameter land information constructions on allied telemetry experiment (complicate). *PLoS One*, 10.
- Traganos, D., Poursanidis, D., Aggarwal, B., Chrysoulakis, N., & Reinartz, P. (2018). Estimating satellite-derived

bathymetry (SDB) with the Google Earth engine and sentinel-2. *Remote Sens.*, 10, 859.

36. Tsvetkov, V.Ya. (2016). Complementarity of information resources. *International Journal of Applied and Fundamental Research*, 2 (2), 182-185.

37. Vasyutinskaya, S.I. (2015). Application of geoinformatics for solving economic problems. *Prospects for science and education*, 5, 125–129.

38. Zatyagalova, V.V. (2012). Geoinformational approach for monitoring sea pollution according to the data of remote sensing of the Earth from space. *Earth Sciences*, 2, 80–85.

Primary Paper Section: D

Secondary Paper Section: DE



J INDUSTRY

JA	ELECTRONICS AND OPTOELECTRONICS
JB	SENSORS, DETECTING ELEMENTS, MEASUREMENT AND REGULATION
JC	COMPUTER HARDWARE AND SOFTWARE
JD	USE OF COMPUTERS, ROBOTICS AND ITS APPLICATION
JE	NON-NUCLEAR POWER ENGINEERING, ENERGY CONSUMPTION AND UTILIZATION
JF	NUCLEAR ENERGY
JG	METALLURGY, METAL MATERIALS
JH	CERAMICS, FIRE-PROOF MATERIALS AND GLASS
JI	COMPOSITE MATERIALS
JJ	OTHER MATERIALS
JK	CORROSION AND MATERIAL SURFACES
JL	FATIGUE AND FRACTURE MECHANICS
JM	STRUCTURAL ENGINEERING
JN	CIVIL ENGINEERING
JO	LAND TRANSPORT SYSTEMS AND EQUIPMENT
JP	INDUSTRIAL PROCESSES AND PROCESSING
JQ	MACHINERY AND TOOLS
JR	OTHER MACHINERY INDUSTRY
JS	RELIABILITY AND QUALITY MANAGEMENT, INDUSTRIAL TESTING
JT	PROPULSION, ENGINES AND FUELS
JU	AERONAUTICS, AERODYNAMICS, AEROPLANES
JV	COSMIC TECHNOLOGIES
JW	NAVIGATION, CONNECTION, DETECTION AND COUNTERMEASURE
JY	FIREARMS, AMMUNITION, EXPLOSIVES, COMBAT VEHICLES

DETERMINING THE NUMBER OF ROWS WITH SCREENING FOR VIEWERS IN THE CINEMA

^aSERHII LITNITSKYI, ^bEUGENE PUGACHOV, ^cVASYL ZDANEVYCH, ^dTARAS KUNDRAT

^{a-d} National University of Water and Environmental Engineering, 11, Soborna Str., 33028, Rivne, Ukraine
 email: ^as.i.litnitskyi@nuwm.edu.ua, ^bevgenpugachov@rambler.ru, ^cvasyl.zdanevych@gmail.com, ^dkundratt@i.ua

Abstract: The way to determine the number of rows in the cinema for which there is screening is given. The rows are situated in two segments form on the plan. Breakpoints of rows lie in the vertical plane of symmetry of the standard zone for viewers. The rise of rows was calculated in the same plane according to known equations. The rows were located on inclined planes' compartments and were divided into four groups (four inclined planes). The X axis was set at the floor level of the first row. The screening arose only for a number of the latter rows in each group. And this number of rows was different for each group. In the article, we first found the equations for determining the number of the last row in a group for no screening. And then, we found the equations for determining the number of rows in this group for which it arises.

Keywords: Anthropometrical, Area, Excess screen film screening, Focal point, Rise of rows.

1 Introduction

Cinemas appeared with startling suddenness and in profusion. They affected an evident change along many of the capital's prominent thoroughfares and drew in a vast new, mainly working-class, audience. Cinema was a powerful democratizing force in an era of significant social change, brought about by new technologies and a perception of a time for leisure [5].

Nowadays, when designing cinemas, be sure to comply with current rules regarding security, safety, accessibility, etc., when making the seating layout in your auditorium [3].

The seating row distance should cover the seats and give enough clearance for access and escape between the seating rows but should be larger to offer more legroom and more excellent sitting comfort. The row distance is measured from the back of one seat to the back of the next row seat [3].

We can often meet cinema with rows situated in two segments of our practice plan (Figure 1 and Figure 2) [1, 2, 4]. Imagine such a cinema with rows situated in two segments form on the plan and inclined planes' compartments.

First we describe the geometric principle of unobstructed visibility calculating for viewers of all rows [2, 6, 7]. Aim the beam of light from focal point *F* to viewers' monocular eye *O_n* of the last row. And this beam touches the top of the viewer of the previous (penultimate in the group) row (Figure 3). This is done within each group of rows [8].

The distance from the focal point to the first row of the *k*-th group *x_k* (Figure 4), if there are no transverse passes, can be calculated by the equation:

$$x_k = x_1 + d \left(\sum_{i=1}^{k-1} n_i - k + 1 \right), k = 2, 3, \dots, m + 1 \tag{1}$$

where *x₁* – distance from the cinema screen to the seatback of the first row; *d* – the space between the backs of adjacent rows (row depth); *n* – number of rows located on one inclined plane; *m* – number of inclined planes (groups of rows). Then *z*-coordinate of the viewers' monocular eye of the *k*-th group first row *z_k* can be determined by the recurrence equation:

$$z_k = (z_{k-1} + C_{k-1}(n_{k-1} - 1) - Z_f) \frac{x_k}{x_{k-1}} + Z_f, z_1 = h \tag{2}$$

where *Z_f* – distance from the floor level of the first row to the focal point (the focal point *z*-coordinate); *h* – the height of the eyes of the sitting viewer above the floor level; *C_{k-1}* – the excess

of vision beam taken for the (*k-1*)-th group of rows (could be the same for all groups).

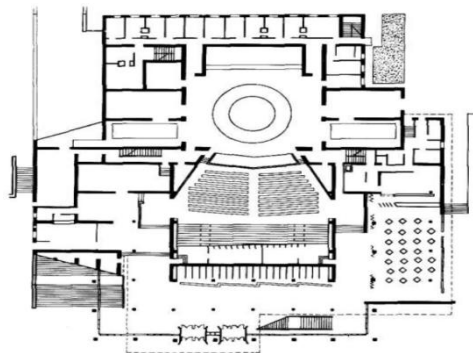


Figure 1 – The hall with two groups of rows (the first group on the plan situated in a two segments form)

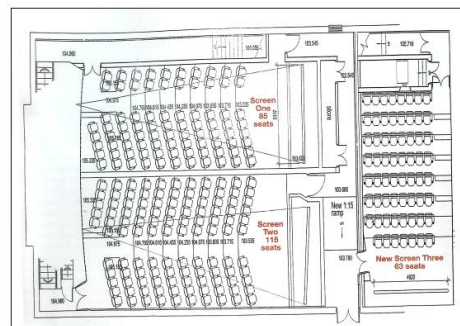


Figure 2 – The plan of project of Burnham-On-Sea Cinema

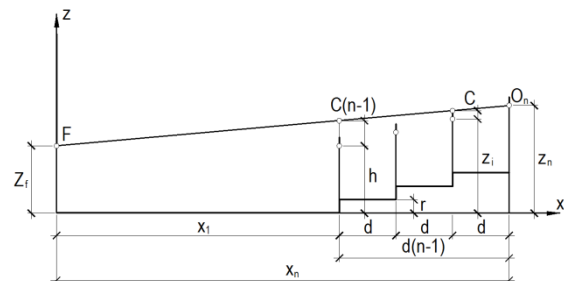


Figure 3 – The geometric principle of unobstructed visibility calculating

In design practice, the rows rise calculation is often carried out in a vertical plane along the X axis (Figure 5). Screening appears because every row has some chairs back, which belong to this vertical plane and situated further to the movie screen than other chairs' backs of this same row.

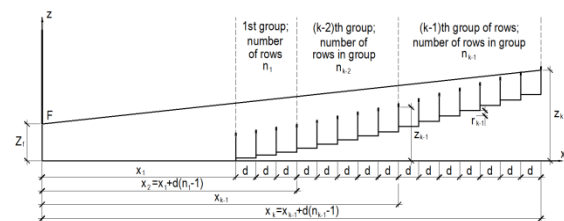


Figure 4 – An example of placement of seats for viewers on three compartments of inclined planes

A straight line of eye viewers of the next row and a straight line of heads tops of the previous row are parallel. The straight line

of head tops was created by adding anthropometric excess C_o to eye viewers z -coordinate. We shall also have such parallel lines because the height of the row floor is assumed to be the same for all its chairs. These lines form a plane that will give a straight line in the intersection with the movie screen (Figure 6).

If this straight line crosses the screen's side edge above its lower edge (focal line), it will appear screening. Screening can be valued by the screen area, which is between the intersection straight line, the screen lower edge, and its side edge. But screening can appear only for the last few rows in each group of rows divided by the total number of rows. However, it cannot appear. This can be checked graphically by constructing the bottom and side edges of the screen and the intersection lines of the planes formed by the pairs of the above-mentioned parallel lines with the plane of the screen.

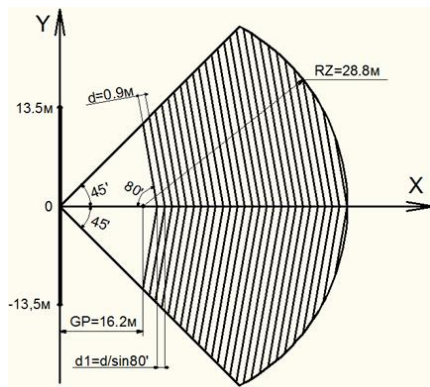


Figure 5 – The standard zone of places for viewers in the cinema, rows on the plan (lines of rows backs), movie screen and coordinate axis

Therefore, in this article, we had a goal to get a formula for determining the number of the last row for which still screening appears and determine in each group the number of rows for which this screening appears. And also, to show how to angle increase between the X axis and a row segment affects the number of rows in the group for which there is screening.

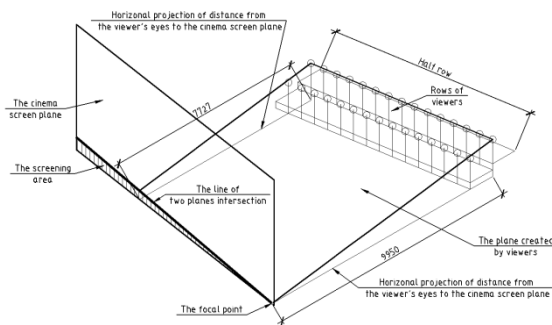


Figure 6 – To graphically determination of the cinema screen plane screening area

2 The Main Part

2.1 Output Data

We divided the total number of rows (29 rows) into four groups to achieve the goal. The first group has three rows. The second group has six rows. The third group has nine rows. The fourth group has fourteen rows. And the last row of the previous group is the first row of the next group. Calculate the rise of the rows in the hall for known recurrence formulas [6].

The height of the focal point above the floor of the first row was $z_f = 1,2m$; the screen width was 27 m, the distance from the focal point to the back of the first-row chair on the plan was 19,056 m,

anthropometric excess was assumed to be same for all groups of rows and was $C_o = 0,15 m$, the row depth $d1 = 0,914 m$, the eyes height of the sitting viewer over the floor was $h = 1,2 m$. As a result of the calculation (Figure 7), graphs of the viewers' eyes' heights and the rows heights (z -coordinates) were received.

The row height is a difference between the viewer's eyes z -coordinate and size above the floor of the seated viewer's eyes. Also, the heights of steps were calculated.

The heights of steps were equal $r_1 = 0,164 m$ for the first group of rows, $r_2 = 0,197 m$ for the second group of rows, $r_3 = 0,240 m$ for the third group of rows, and $r_4 = 0,295 m$ for the fourth group of rows.

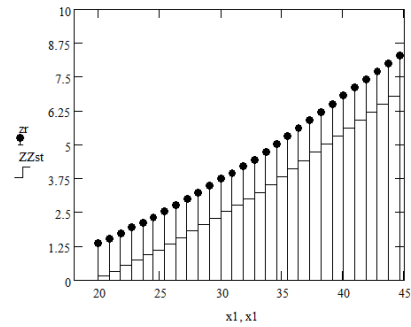


Figure 7 – Z-coordinates of the viewers' monoculareyes (zr) and rows height ($ZZst$) depending on the distance ($x1$) of the row back from the focal point

2.2 Graphical Way to Determine the Number of Rows

First, we will graphically construct straight lines of intersection of the plane with the screen for viewers of each inclined plane's rows to explain calculations better. The screening will occur for spectators of every last row in the group. It follows from the method of calculation of rows rise.

Moreover, the intersection's straight line with the screen plane will pass through the middle of its lower edge (the focal point). Then we will compare the results with the results that we get analytically.

2.2.1 Results of Graphical Way

It was shown (Fig. 8) a straight line of intersection with the screen for the third (the last row of the first group) and second rows (for both links of broken rows) and the bottom edge of the screen (thick horizontal straight line).

As can be seen from the figure, already for the second row (the penultimate row of the first group), there is no screening. Screening also occurs only for the last row in the second group (the eighth row) (Figure 9). But it occurs for the last (the sixteenth) and penultimate (the fifteenth) rows in the third group (Figure 10). And it occurs over the previous three rows in the fourth group (the 29th, 28th, and 27th rows) (Figure 11).

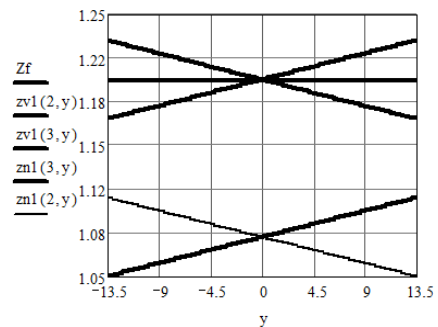


Figure 8 – The straight lines of intersection of the plane with the screen for viewers of the 3rd and 2nd rows

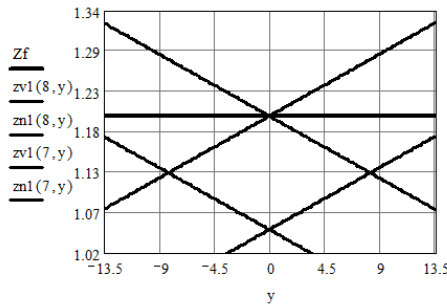


Figure 9 – The straight lines of intersection of the plane with the screen for viewers of the 8th and 7th rows

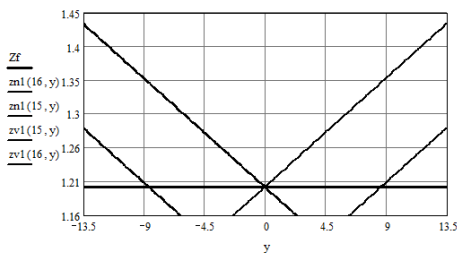


Figure 10 – The straight lines of intersection of the plane with the screen for viewers of the 16th and 15th rows

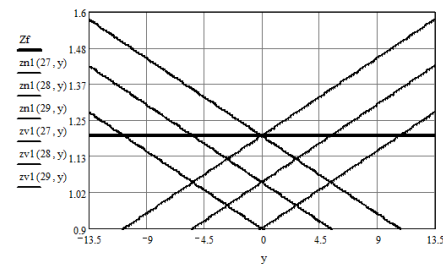


Figure 11 – The straight lines of intersection of the plane with the screen for viewers of the 29th, 28th, and 27th rows

2.3 Analytical Way to Determine the Number of Rows

Now we write the equation of a plane that passes through the viewers' monocular eyes line of the next i -th row and the viewers' heads tops line of the previous $i-1$ -th row for the upper half of the seats (Figure 5). The plane formula can be written as a determinant.

$$\begin{vmatrix} x - x_i & y - 0 & z - z_i \\ x_{i-1} - x_i & 0 & z_{i-1} + c_0 - z_i \\ x_{i-1} - \cos \alpha - x_i & \sin \alpha & z_{i-1} + c_0 - z_i \end{vmatrix} = 0 \quad (3)$$

where x, y, z – the plane coordinates that moves; $x_{i-1}, x_i, y_{i-1}, y_i, z_{i-1}, z_i$ – the viewers' monocular eye coordinates of the next and the previous rows; c_0 – anthropometric excess and angle α was shown on Fig. 5.

We obtain the equation of the intersection line of the plane (3) with the screen plane $x = 0$ substituting in (3) zero instead of x .

$$z = \frac{(z_{i-1} + c_0 - z_i) y \operatorname{ctg} \alpha + (x_{i-1} z_i - x_i z_{i-1} - x_i c_0)}{x_{i-1} - x_i} \quad (4)$$

Screening will not occur if the line intersects the side edge of the screen below its lower edge (focal line). It will happen if $y = H/2$ (H – screen width). In this case z must be less than or equal to z_f . It follows that

$$\frac{(z_{i-1} + c_0 - z_i) \frac{H}{2} \operatorname{ctg} \alpha + (x_{i-1} z_i - x_i z_{i-1} - x_i c_0)}{x_{i-1} - x_i} \leq z_f \quad (5)$$

Now let's determine from (5) the last row number in the group for which there is no screening yet. For this we shall express the coordinates of the viewers' monocular eyes of the next and previous rows as a function of the row total number i and also the number in the group nrg as a function of the total number i of the row and the number of the group j in which it is located.

Let the first row of the next group be simultaneously the last row of the previous group. Then the row number in the j -th group, depending on the row total number i and the group number j , in which it is located, can be determined by the equation

$$nrg = i - \sum_{k=1}^{j-1} n_k + (j - 1) \quad (6)$$

where k – the group number, j – the group number in which the row is located, i – the row total number, n_k – the rows number in the k -th group.

For example, for the fourth row, which is in the second group we shall receive

$$nrg = 4 - 3 + (2 - 1) = 2$$

that is, the fourth row is the second row in the second group of rows.

Therefore, z -coordinate of the viewers' monocular eye of the i -th row, which is in the j -th group of rows, can be determined by the equation

$$z_i = h + \sum_{k=1}^{j-1} r_k (n_k - 1) + r_j (nrg - 1) \quad (7)$$

Where r_k, r_j – steps height in k -th and j -th groups of rows.

In order to determine z -coordinate of $i-1$ row, it is necessary to subtract in the last part of equation (7), not 1, but 2. The equation will look like

$$z_{i-1} = h + \sum_{k=1}^{j-1} r_k (n_k - 1) + r_j (nrg - 2) \quad (8)$$

Z -coordinates of the viewers' monocular eye of the i -th and $i-1$ rows can be determined by the equations

$$x_i = x_1 + d_1 (i - 1) \quad (9)$$

$$x_{i-1} = x_1 + d_1 (i - 2) \quad (10)$$

where x_i, x_{i-1}, x_1 are the distances from the focal point to the seats' backs of the i -th, $i-1$, 1-st rows and d_1 is the depth of the row along the x -axis.

Substituting (7), (8), (9), (10) into (5) and taking into account that the total number of a row can be only an integer, we obtain equation for determining the total number of the last row in the group for which there is not yet screening

$$nri = \operatorname{Ent} \left(\frac{A+B}{D} \right) \quad (11)$$

$$A = (c_0 - r_j) \frac{H}{2} \operatorname{ctg} \alpha + (x_1 - 2d_1) \left(h + \sum_{k=1}^{j-1} r_k (n_k - 1) - r_j \left(\sum_{k=1}^{j-1} n_k - j + 2 \right) \right)$$

$$B = z_f d_1 - (x_1 - d_1) \left(h + \sum_{k=1}^{j-1} r_k (n_k - 1) - r_j \left(\sum_{k=1}^{j-1} n_k - j + 3 \right) + c_0 \right)$$

$$D = d_1 c_0$$

Where Ent – Antje function (the integer part of the expression given in brackets).

2.3.1 Results of Analytical Way

The equation (11) for the first group of rows gives a value of 2, for the second one – 7, for the third one – 14, for the fourth one – 26. It is clear that for the rest of the rows in groups, screening occurs.

Screening occurs in the first group only for the last third row, in the second group also only for the previous eighth row, in the third one for the previous two rows (fifteenth and sixteenth), and the fourth one for the previous three rows (27th, 28th, and 29th). The above is the total rows numbers, not the rows numbers in the groups. Therefore, the results obtained graphically and analytically are the same. Generally, the number of rows N in the j -th group, for which there is a screening, can be determined by the equation.

2.4 The Angle between the Screen Plane and Row Influence

The number of rows N , for which there is screening, depends on the angle α . In numerous auditoriums, the side walls are not parallel. If the walls are merely slightly angled, this will be great for acoustics and still allow for big picture size [3].

If we consider this angle to be variable, we can construct graphs of this dependence for each row. Figure 12 shows a graph for the first group of rows (the variable angle α is indicated for convenience as β , the angle is determined in radians).

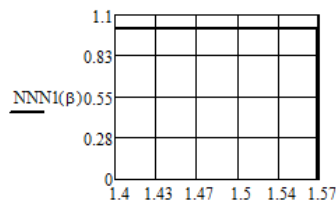


Figure 12 – The dependence of the rows number for which there is a screening zone from the angle β for the first group of rows

Figure 12 shows that the number of rows falls from one to zero for which there is screening. It happens when the angle β becomes equal $\pi/2$, that is, the broken line is straightened out.

We have a similar picture for the second group of rows. The graphs are also shown in Figure 13 and Figure 14 for the third and fourth groups of rows. We can see that for certain values of the angle β there is a jump, and the number of rows decreases.

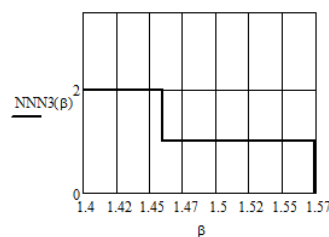


Figure 13 – The dependence of the rows number for which there is a screening zone from the angle β for the third group of rows

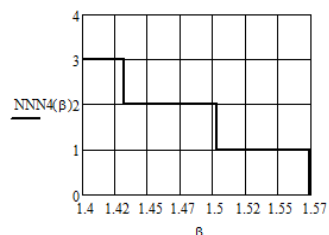


Figure 14 – The dependence of the rows number for which there is a screening zone from the angle β for the fourth group of rows

3 Conclusion

Designing a cinema is relatively possible if you follow the rules. Although, if everyone follows all the rules, all the halls will look the same. Go beyond the limitations, but always remember that a movie theater's primary goal is to give viewers the best possible movie experience. Besides, the cinema has many other rooms where you can use your creativity to create an unforgettable experience for visitors and make them come back [3].

The article described the method that allows determining the number of rows in each group for screening. The screening arises depending on the angle formed by segments of rows. The research method can be used during the design of cinemas with rows situated in two segments start on the plan. It can also be used to assess the comfort of visibility in the room and the differentiation of ticket prices.

Literature:

1. Burnham-On-Sea. (2014). *Burnham-On-Sea Cinema unveils £150,000 plans for new third screen*. Available from: <https://www.burnham-on-sea.com/news/cinema-third-screen-10-09-14>.
2. CEN-EN 13200-1. (2012). *Spectator facilities – Part 1. General characteristics for spectator viewing area*.
3. Gjestland, R. (2019). *How to Design a Cinema Auditorium*. Practical guidelines for architects, cinema owners and others involved in planning and building cinemas. Belgium: International Union of Cinemas (UNIC).
4. Gnyedovskii, Yu.P. & Savchenko, M.R. (1968). *Cinemas (basic design)*. Moscow: Stroizdat, 240, [in Russian].
5. McKernan, L. (2007). Diverting Time: London's Cinemas and Their Audiences, 1906–1914. *The London Journal*, 32(2), 125–144.
6. Pan, W., Sun, Y., Turrin, M., & Paul, J.C. (2016). *A Parametric Modelling Process for the Integration of Architecture and Structure in Large Multi-functional Sports Hall Design: a Case Study*. IASS Annual Symposium 2016: Spatial Structures in the 21st Century, 1-10. Available at: <https://repository.tudelft.nl/islandora/object/uuid:0de8da1d-8b9f-44a7-a5c2-2f9b52b4a488?collection=research>.
7. Pelczarski, Z. (2016). *The unconventional tribune profiles in architectural designing of stadiums*. Lecture Notes in Computer Science, 9737, 315-326.
8. Pugachov, E.V. & Zdanevich, V.A. (2014). *Visibility and visual perception in buildings and structures for viewers*. Teaching manual. Rivne, NUWEE, 150, [in Ukrainian].

Primary Paper Section: J

Secondary Paper Section: JM, JN

RIGIDNESS OF COMBINED REINFORCED GLUED WOOD BEAMS

^aSVYATOSLAV S. GOMON, ^bMYKOLA POLISHCHUK,
^cSVIATOSLAV HOMON, ^dPETRO GOMON, ^eOLEG
 VERESHKO, ^fYULIIA MELNYK, ^gINNA BOYARSKA

^{a-d}National University of Water and Environmental Engineering,
 11, Soborna Str., 33000, Rivne, Ukraine

^{e-g}Lutsk National Technical University, 75, Lvivska Str., 43018,
 Lutsk, Ukraine

email: ^aslavagomon@ukr.net, ^bm.v.polishchuk@nuwm.edu.ua,

^chomonsviatoslav@ukr.net, ^dp.s.homon@nuwm.edu.ua,

^eolegboremel@gmail.com, ^fmelnykjulka@gmail.com,

^gboiarska_inna@ukr.net

Abstract: The operation of glued wood beams with combined reinforcement is investigated. The beam's construction provides for the reinforcement of the compressed zone with steel rod reinforcement and the stretched zone with external tape reinforcement made of high-strength composite materials. Thus, due to the reinforcement, an attempt was made to increase the reinforced wooden elements' stiffness and load-bearing capacity on the transverse bend. Based on experimental research, the graphs of deflections showing the rigidity change between not reinforced and reinforced samples are constructed. The data on the bearing capacity of the tested samples are given.

Keywords: Composite reinforcement, Glued wood, Load-bearing capacity, Rigidity, Steel reinforcement.

1 Introduction

Due to its strength, beauty, ease of processing, and installation, wood has long been in demand as an essential building material. The use of glued wood in the construction, which is made by joining individual boards, pressed in layers under pressure, minimizes the impact of natural defects and shortcomings, such as knots, stratification, rot, etc.

Wood has sufficient tensile and compressive strength, even compared to the strength of conventional concrete. However, high strength is usually accompanied by low rigidity, so the design is usually controlled by the limitations of the deflections of structures [7, 8, 13]. Increasing the stiffness without increasing the height of wooden elements saves a lot of space, prevents folds in the compressed zone [1, 11, 12], and saves material. It is the reinforcement of the glued wood beam that contributes to this. The introduction of a more rigid material (steel reinforcement) in the compressed cross-sectional area affects the increase in the beams' overall stiffness, which in turn leads to a decrease in deflections.

Reinforcement of glued wooden beams using steel reinforcement is better known and researched [2, 11, 19, 21]. The most effective is considered to be double reinforcement, in which the reinforcement is located in the compressed and stretched areas of the beams.

Over the last few decades, there has been significant progress in using composite materials in construction. Due to its high strength, high corrosion resistance, lightweight, composite reinforcement easily competes, and in some cases, has advantages over traditional steel reinforcement. It is delivered in rods, rods, cables, tapes, and a cloth. Composite reinforcement is intended for use mainly in concrete structures, significantly when they are reinforced, but also provides for the use of wooden and metal structures.

In many foreign countries, composite materials for the reinforcement of wooden elements are not new. In Ukraine, we are just beginning to more thoroughly study the joint work of such materials with wooden structures, and we already have some experience in this direction [4, 6, 9, 10, 14, 20].

A more known is a glued wooden beam containing steel rod reinforcement in the grooves of the compressed and stretched zone [16].

This paper proposes a variant of reinforcement that does not require the installation of reinforcement inside the stretched zone and thus does not weaken the most loaded stretched wood fibers due to the cutting of the boards in order to arrange the grooves. Instead, a high-strength composite carbon fiber tape is glued outside the stretched beam zone, thus giving the structure additional strength and the steel reinforcement of the compressed zone - additional rigidity [9, 10, 14].

1.1 The Purpose and Objectives of the Study

Our goal was to investigate the operation of glued wood beams, which were reinforced with different types of reinforcement in compressed and stretched areas, and to compare the change in stiffness with non-reinforced samples.

To achieve this goal, tasks were set, which included the manufacture of glued wood beams (non-reinforced, with compressed zone reinforcement and combined reinforcement), experimental research, data processing, and conclusions on changes in the stiffness of the test specimens when working on transverse bending.

2 Materials and Methods

Several series of glued beams were made for testing (Table 1). All of them were 3000 mm long and 100 x 150 mm in cross-sectional dimensions.

Table 1: Volume of samples for experimental research

Series number	Marking	Reinforcement	Number of samples
I	GB-A	unreinforced	1
	GB-B	unreinforced	1
II	GRB-12A	2Ø12 A500C + Sika Carbo DurS-512	1
	GRB-12B	2Ø12 A500C + Sika Carbo DurS-512 + Sika Wrap-230 C	1
III	GRB-16A	2Ø16 A500C + Sika Carbo DurS-512	1
	GRB-16B	2Ø16 A500C + Sika Carbo DurS-512 + Sika Wrap-230 C	1
IV	GRB-12C	2Ø12 A500C	1

The first series of GB glued beams consisted of two beams (GB-A and GB-B), tested with a single short-term load to determine the deflections and compare them with the corresponding reinforced beams.

The beams of the second series GRB (GRB and GRB-12B) were reinforced in the compressed area with steel reinforcement in the form of two rods with a diameter of 12 mm class A500C and composite tape Sika Carbo Dur S-512, glued on the outside of the stretched area. The second series's two beams differed in that the composite tape in the GRB-12B sample was also anchored to prevent its premature separation. Sika Wrap-230 C carbon fiber fabric was used for anchoring, glued around the beam's perimeter in the supporting sections of the beam.

Reinforced beams of the third series GRB-16A and GRB-16B, were made similarly to the second series, with the only difference that in the compressed zone, steel armature with a diameter of 16 mm was used.

Another wooden beam of the fourth series GRB-12C was also tested, which contained steel reinforcement in the form of two rods of class A500C with a diameter of 12 mm only in the compressed zone.

Manufacturing and testing of all samples were carried out in the Department of Industrial, Civil Engineering, and Civil Engineering NUVGP Rivne laboratory. Beams are made of pine boards 25 mm thick. Each non-reinforced beam was formed and glued simultaneously, while reinforced beams were made in several stages.

First, the steel reinforcement was glued into the pre-made grooves of the penultimate board of the upper compressed zone with epoxy glue. Next, on a special stand under pressure, a package of boards was glued using resorcinol glue. After the glue has completely hardened, the composite tape reinforcement was glued with Sika Dur-30 glue specially designed for it from the outside of the future stretched zone of the beam.

Sika Carbo Dur S-512 composite tape 1.2 mm thick and 50 mm wide is supplied. However, due to its high strength, it was decided to divide it in half along its entire length, thus obtaining a width of 25 mm.

After gluing the tape for its anchoring, Sika Wrap-230C was additionally glued in two beams GRB-12B and GRB-16B, using the corresponding Sika Dur-330 glue. Since it is forbidden to bend the canvas at an acute angle, chamfers with a radius of at least 20 mm were made in its gluing places, in the corners of the beams. The scheme of reinforcement of beams by steel and composite reinforcement is shown in Figure 1.

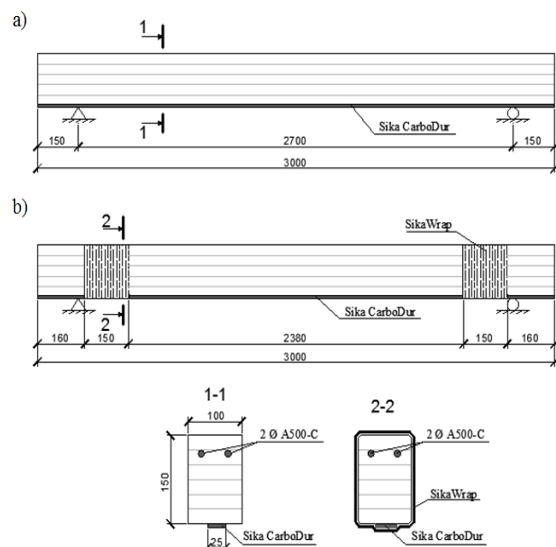


Figure 1 – Scheme of reinforcement of beams from glued wood with steel and composite reinforcement: a) without additional anchoring of composite tape; b) with additional anchoring of the tape

Beams prepared for testing were mounted on hinged and fixed supports. The load was applied to the samples using a hydraulic jack, and its level was monitored using a ring dynamometer. The force from the jack in the form of two concentrated forces was transmitted to the structure through a metal traverse in thirds of the span. According to the requirements, the test was performed with a single load in stages of 5-10% of the expected destructive load [3, 5, 17]. At each stage, the shutter speed was 5-7 minutes, during which samples were taken from all devices placed on the test beam.

Metal and wooden pads were installed on the supports at the load transfer points from the beam to the beam and at the beam support points, which reduced the concentration of local stresses and prevented the wood from crumpling across the fibers.

When testing the experimental beams for transverse bending and placement of measuring instruments, the scheme of installation is shown in Figure 2.

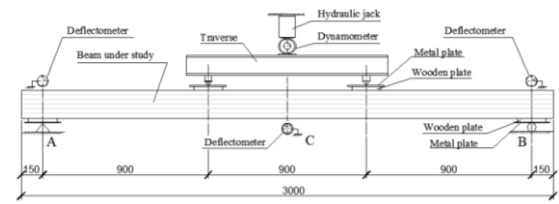


Figure 2 – The scheme of the experimental installation when testing beams from glued wood

6-PAO prognometers were used to determine the deflections of the beams. They were installed in the middle of the span and above the supports to determine the supports' beam's subsidence. When more than 80% of the expected destructive load was reached, the instruments were removed to prevent damage in the possible destruction of the test specimens. The general view of the beam under load is shown in Figure 3.



Figure 3 – General view of the reinforced beam under load

3 Results and Discussion

Based on experimental studies, graphs of maximum deflections of beams in the middle of the span depending on the bending moment were constructed. The value of deflections at the appropriate degree of the load was determined by the formula (1)

$$w = w_C - (w_A + w_B)/2 \tag{1}$$

where w_A – subsidence of the beam on the support A, mm; w_B – subsidence of the beam on the support B, mm; w_C – deflection in the middle of the span, mm.

The maximum allowable deflection is $1/150 \times l$ according to [20], where l is the span of the beam. For our samples, the maximum deflection will be:

$$w_{fm} = l/150 = 2700/150 = 18 \text{ mm} \tag{2}$$

The graph of deflections under the short-term loading of the tested beams is shown in Figure 4.

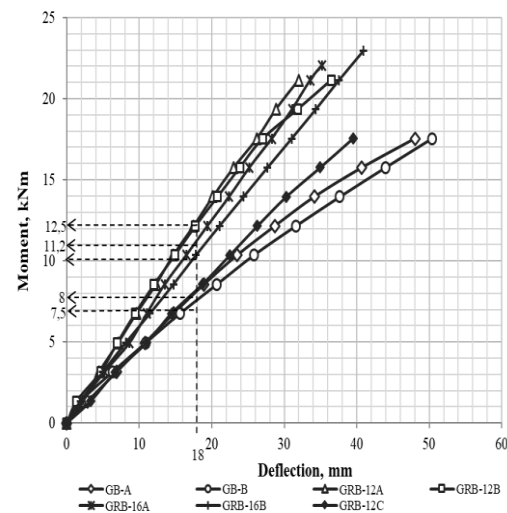


Figure 4 – Graph of deflections of the studied beams

The graph shows that the maximum deflection of 18 mm for non-reinforced beams and GRB-12C beams with reinforcement only in the compressed zone was achieved at lower loads, in particular, for the GB-B sample at 7.5 kNm, for GB-A and GRB-12C at 8 kNm. Simultaneously, the second series samples with steel reinforcement with a diameter of 12 mm in the compressed zone and composite tape in the stretched zone showed the most significant rigidity. The maximum deflection for both GRB-12A and GRB-12B beams was achieved at 12.5 kNm. Regarding the beams of the third series with reinforcement with a diameter of 16 mm in the compressed zone, they reached the deflection limit value at slightly lower values of bending moment than the samples of the second series GRB-12A and GRB-12B at 10.4 kNm. However, despite this, the load-bearing capacity of the beams of the third series was the largest. The values of the destructive loads of all tested samples are given in Table 2.

Table 2: Destructive loads of the studied beams of glued wood:

Series	I		II		III		IV
Sample name	GB-A	GB-B	GRB-12A	GRB-12B	GRB-16A	GRB-16B	GRB-12C
Destructive moment, M, kNm	23,85	22,05	26,55	31,05	32,85	33,75	22,95

Further reduction of deflection limits at higher bending moment values can be achieved by applying a prestress of Sika Carbo DurS-512 carbon tape in the glued beam's stretched area [15], which causes the initial bending of the element before the process.

4 Conclusion

As a result of the conducted research, the data on the change of rigidity of beams from glued wood due to the combined reinforcement were received. The deflections of non-reinforced and reinforced beams are compared with steel rod reinforcement glued to the compressed zone's grooves and composite carbon fiber tape glued to the outside of the stretched zone. It was found that the stiffness changes with increasing diameter of steel reinforcement in the compressed zone and in the sample containing reinforcement only in this zone. It was found that the reinforcement of only the compressed zone of the beams does not significantly affect the increase in stiffness because the maximum deflection was achieved at the same load values as for non-reinforced samples of glued wood. At the same time, the reinforcement of the compressed and stretched zone gives noticeable results. Therefore, for samples GRB-16A, GRB-16B with a reinforcement diameter of 16 mm in the compressed zone, the deflection's value was achieved at a load, on average, 39% greater than for non-reinforced beams. However, it should be noted that the total bearing capacity of these samples was the largest. Samples with 12 mm reinforcement in the compressed zone showed the greatest rigidity. For them, the maximum deflection was achieved under load, which is 61% more than the average value for non-reinforced samples. The obtained results allow us to state that the proposed reinforcement significantly increases the stiffness and load-bearing capacity of glued beams.

Literature:

- Babich, E.M. & Gomon, S.S. (2019). Features of calculation of elements from wood at direct cross bending by a deformation technique. Modern technologies and methods of calculations in construction. *Collection of scientific works*, 12, 21-30. [https://DOI: 10.36910/6775-2410-6208-2019-2](https://doi.org/10.36910/6775-2410-6208-2019-2) (12) -03.
- Bondarchuk, T.B., Bashinsky, O.I., & Peleshko, M.Z. (2014). Load-bearing capacity and fire resistance of wooden beams reinforced with external tape reinforcement. *Bulletin of Lviv State University of Life Safety*, 9, 184-189.
- DBN B.2.6-161: 2017. (2017). *Constructions of houses and buildings. Wooden structures*. Substantive provisions. Kyiv: Ukrarchbudinform, 111.
- Demchina, B.G., Surmay, M.I., Kravz, A.R., & Blyakhar, T.Y. (2010). Experience in the manufacture of glued beams reinforced with non-metallic reinforcement. Modern building

materials, structures and innovative technologies for the construction of buildings and structures. *Bulletin of DonNACEA*, Makeyevka: DonNACEA, II, 5 (85), 193-197.

- DSTU EN 380-2008. (2008). Timber is constructional. *General guidelines for static load test methods*, 8.
- Ermolenko, D.A. & Ishchenko, M.S. (2017). Strength and deformability of glued wooden beams reinforced with polymer mesh. *ACADEMIC JOURNAL Series: Industrial Machine Building, Civil Engineering*. Poltava: PNTU, 2 (47), 140-147.
- Gomon S., Gomon S., Pavluk A., & Gomon P. (2019). Completed deflections of glued beams in the conditions of oblique bend for the effects of low cycle loads. *Sobczak-Piastka J., AIP Conference Proceedings 2077, 020021* (2019). <https://doi.org/10.1063/1.5091882>.
- Gomon, S.S. & Pavlyuk, A.P. (2018). Operation of beams from glued wood in the conditions of an oblique bend. *Bulletin of Lviv National Agrarian University. Architecture and Agricultural Construction*, 19, 84-89. doi: [https:// DOI: 10.31734/architecture2018.19.084](https://doi.org/10.31734/architecture2018.19.084).
- Gomon, S.S. & Polishchuk, M.V. (2019). *Installation of the combined reinforcement of beams from glued wood*. International scientific-practical conference "Effective technologies and structures in construction and rural architecture. Development of innovative models of eco-settlements of Prykarpattia and Carpathians". Abstracts. Dubliani, 99-100.
- Gomon, S.S. & Polishchuk, M.V. (2019). Utility model patent № 135229, Ukraine, IPC E04C 3/12 (2006.01). *Glued wooden beam* (applicants and patent owners Gomon S.S. and Polishchuk M.V.), National University of Water Management and Environmental Sciences, № u 201900104, announced on January 3, 2019, published on June 25, 2019, Bulletin 12.
- Gomon, S.S. (2011). Stages of stress-strain state of normal sections of wood work on bending. *Resource-saving materials, structures, buildings and structures. Collection of scientific works*, 21, 176-180.
- Gomon, S.S. (2014). Prerequisites for preventing the progressive destruction of wooden structures under the action of different types of loads. *Resource-saving materials, structures, buildings and structures. Collection of scientific works*, 29, 108-116.
- Gomon, S.S. (2019). *Stress-strain state and calculation by deformation method of wood elements at single and repeated loads: monograph*. Rivne: Volyn charms, 288.
- Sobczak-Piastka J., Gomon, S.S., Polishchuk, M., Homon, S., Gomon, P., & Karavan, V. (2020). Deformability of Glued Laminated Beams with Combined Reinforcement. *Buildings*, 10, 92. doi: 10.3390/buildings10050092.
- Gomon, S.S., Gomon, P.S., & Polishchuk, M.V. (2020). Utility model patent № 143340 Ukraine, IPC E04C 3/26 (2006.01). *Method of tensioning external strip reinforcement of glued wood beams* (applicants and patent owners Gomon S.S., Gomon P.S., and Polishchuk, M.V.), National University of Water Management and Environmental Sciences, № u2020 00431, claimed 27.01.2020; published 27.07.2020, Bulletin 14.
- Ivanov, VA (1981). *Wood and plastic constructions. Examples of calculation and design*. Textbook for universities. Kiev: Higher school.
- Recommendations for testing wooden structures. (1976). Central Research Institute of Building Structures named after V.A. Kucherenko. Moscow: Stroyizdat, 28.
- Repin, V.A. (2000). *Wooden beams with rational reinforcement*. The dissertation of the candidate of technical sciences, 05.23.01, Vladimir, 158.
- Schuko, V.Yu. & Roshchina, S.I. (2002). *Reinforced wooden structures in construction*. Textbook, Vladimir, 68.
- Stoyanov, V.V. (2013). Reinforcement of beam structures by layer-by-layer reinforcement. *Bulletin of universities "Construction"*, 11, 44-47.
- Turkovsky, S.B. & Pogoreltsev, A.A. (2008). Wooden constructions on the basis of inclined glued cores. System of Central Research Institute of Building Structures. *Building materials, equipment, technologies of the XXI century*, 6, 26-28.

Primary Paper Section: J

Secondary Paper Section: JM



PAPERS PUBLISHED IN THE JOURNAL EXPRESS THE VIEWPOINTS OF INDEPENDENT AUTHORS.

