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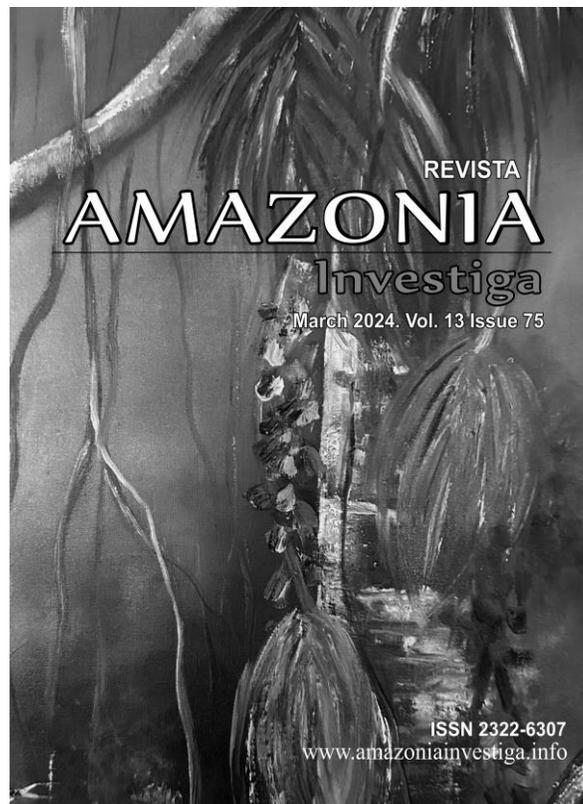
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CONTENIDO

Editorial

Borys Grinchenko Kyiv Metropolitan University: serving people, community, society

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Borys Grinchenko Kyiv Metropolitan University is the only higher education institution owned by the territorial community of Kyiv.

The institutional history of Borys Grinchenko Kyiv Metropolitan University dates back to 28 September 1903, when it was founded as the Kyiv Church-Teacher's School, which later underwent a number of reorganizations, but was first transformed into the Kyiv Ukrainian Teachers' Seminary, which was named after Borys Grinchenko.

The mission of Borys Grinchenko University is to serve people, community and society. The vision of the University is a metropolitan university with a developed corporate culture, high standards of education and scientific research, space for self-realization of each individual, whose activities are aimed at responsible service to the person, the territorial community of Kyiv and Ukraine. The University's motto is "Striving for Excellence!"

The university offers an excellent combination of long-standing educational traditions and a modern innovative approach in training competitive specialists according to international standards.

The University has 13 faculties: the Faculty of Economics and Management, the Faculty of Journalism, the Faculty of Health, Physical Education and Sports, the Faculty of Information Technologies and Mathematics, the Faculty of Music and Choreography, the Faculty of Fine Arts and Design, the Faculty of Pedagogical Education, the Faculty of Law and International relations, the Faculty of Psychology, Social Work and Special Education, the Faculty of Romano-Germanic Philology, the Faculty of Social and Humanities, the Faculty of Oriental Languages, the Faculty of Ukrainian Philology, Culture and Art), the Institute of Postgraduate Education, the Professional College "Universum", the Doctoral School.

The University has a well-developed infrastructure: it has 5 academic buildings, a

modern library with branches in the buildings, sports complexes with a swimming pool, gyms and sports halls, a sports ground on the roof of the academic building, more than 90 SMART classrooms, Digital Hub of Innovative Solutions, Cyber Training Ground, Wi-Fi zones, concert, choreographic and conference halls, dormitories, TV and radio studios, press centre, competence centres, laboratories and workshops, publishing house, resource centre for students with disabilities. The University creates a safe and inclusive environment for all participants in the educational process, which meets the latest challenges of the time - the pandemic, and later the military aggression. In particular, the University's Digital Campus operates, which, among other things, includes an extensive e-learning environment where modern interactive educational activities can be carried out, providing, if necessary, distance learning. All academic buildings have a barrier-free educational environment and modern shelters with classroom facilities and the necessary technical equipment.

In 2017, Grinchenko University introduced a new educational strategy - practice-oriented education. Students study in practical centers, the concept of which was developed by the University team in order to improve the quality of training of graduates and the compliance of the acquired competencies with stakeholder requests, modern challenges, and market requirements. The peculiarities of the educational process are the reduction of time spent on traditional lectures and theoretical seminars, the transition to interactive technologies with extensive use of the latest equipment.

The academic community of the University has defined strategic priorities for 2023-2027, which provide for the training of competitive professionals according to modern educational programs; conducting actual scientific research; responsible service to the community to promote the post-war development of the country on the basis of sustainable development and European integration of Ukraine.

The main principles of the University's development are cooperation and partnership; compliance with social needs and the labor market; compliance with world and national quality standards of education and scientific research; efficiency, effectiveness and economic feasibility; innovativeness and orientation towards the achievements of modern science and technology; constancy; predictability; openness;

purposefulness; meeting the needs of future generations.

The university is a space of free individuals united by common corporate values and a culture of leadership-service. All members of the team - from students to professors, technicians - adhere to the values of the University, on which the corporate culture of the institution is based - a person; Ukrainian and European civic identity; community; freedom; trust; spirituality; responsibility; virtue; professionalism; service leadership; variety; time.

High attention is paid to personnel development: the University has a strong personnel potential, provides conditions for effective work and professional development of employees. The University encourages employees to professional and personal development, creates appropriate conditions for this purpose. In particular, advanced training programs are constantly being developed and high-level classes are held for University employees with the aim of developing research, didactic, digital, leadership competencies, media education, for the adaptation of new employees, trainings to support and preserve mental health, etc. For example, in order to prepare the teaching staff for the effective use of modern technologies in the educational process, training was held to master the peculiarities of working with artificial intelligence, provide knowledge and skills for its successful integration into educational activities, and understand the opportunities and limitations.

One of the priorities of the University is student-centredness - the institution promotes the development of students as conscious and responsible citizens, holistic and cultural individuals, professionals and leaders. The student-centred approach is manifested in the design and implementation of educational programs, creating conditions for students to fully master them, promoting the activities of student self-government bodies, participation of representatives of the student community in management processes, and ensuring the protection of students' rights.

Due to the listed approaches and goals, the University ensures high quality of education, trains specialists according to current educational programs needed by society, which meet the demands of stakeholders and international partners; has an effective internal system for ensuring the quality of higher education.

The University effectively conducts relevant scientific research, provides appropriate conditions for this and observes the principles of academic integrity in conducting scientific research, promotes the creation of scientific products that are useful and important for society.

Another important feature is that the University is a socially responsible partner of the metropolitan community, as it belongs to the communal property of the territorial community of Kyiv: it cooperates with civil society institutions and mass media, with the metropolitan community, and promotes the search for solutions to the social problems it faces. And most importantly, the University provides the capital with qualified specialists.

Innovation and digitalization, internationalization of the educational process are also important priorities of the University's development. Thus, the University ensures the development of innovations in education and science, the implementation of innovative projects and ideas, stimulates the creation of digital products and their implementation, has a modern digital library, and the Digital University is actively functioning.

The University is included in the Times Higher Education Impact Rankings, which reflects the work of universities to achieve the Sustainable Development Goals.

In the TOP-200 Ukraine ranking in 2023, Borys Grinchenko University ranks the 57th , and in the Consolidated ranking it occupies the 43rd position.

In the ranking of the best higher education institutions in the capital of Ukraine in 2023, Borys Grinchenko Kyiv University took 12-14 places among 63 higher education institutions in Kyiv. It also remains one of the most popular universities in Ukraine among applicants by the number of applications submitted.

Today, Borys Grinchenko Kyiv Metropolitan University is actively developing, it is among the top 5 universities in Kyiv, has a progressive education system and a modern European approach to the educational process, and a highly qualified team of professionals.

There are still many useful tasks and achievements ahead for the benefit of the people, the community, and society!
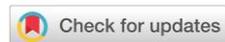
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Application of the EFQM model in a travel agency

Uplatnenie modelu EFQM v cestovnej agentúre

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Abstract

The paper aims to evaluate the degree of excellence a selected travel agency achieves using the EFQM model. The methodology involves establishing desirable outcomes such as modernizing service offerings and increasing competitiveness. Questionnaires assess customer satisfaction, employee satisfaction, societal impact, and critical organizational results. These questionnaires address service quality, environment, employee willingness, director rating, and financial and non-financial evaluations. The EFQM model provides a framework for the organization to respond effectively, emphasizing the need for thorough comparison with practical implementation and active involvement from management and employees. The model's introduction is acknowledged as a long-term endeavor, requiring sustained effort and understanding from management. In summary, the EFQM model evaluation of the travel agency reveals strengths in employee care and goal clarity but highlights areas for improvement. These include updating policies,

Abstrakt

Cieľom príspevku je zhodnotiť mieru excelentnosti, ktorú vybraná cestovná agentúra dosahuje s uplatnením modelu EFQM. Metodológia zahŕňa stanovenie žiaducich výsledkov, ako je modernizácia ponuky služieb a zvýšenie konkurencieschopnosti. Dotazníky hodnotia spokojnosť zákazníkov, zamestnancov, spoločenský dopad a kritické výsledky organizácie. Tieto dotazníky sa zaoberajú kvalitou služieb, prostredím, ochotou zamestnancov, ratingom riaditeľa a finančným a nefinančným ohodnotením. Model EFQM poskytuje organizácii rámec na efektívnu reakciu, pričom zdôrazňuje potrebu dôkladného porovnania s praktickou implementáciou a aktívneho zapojenia manažmentu a zamestnancov. Zavedenie modelu sa považuje za dlhodobé úsilie, ktoré si vyžaduje trvalé úsilie a pochopenie od manažmentu. Stručne povedané, hodnotenie modelu EFQM cestovnej agentúry odhaľuje silné stránky v starostlivosti o zamestnancov a jasnosť cieľov, ale zdôrazňuje oblasti na zlepšenie. Patrí medzi ne aktualizácia pravidiel, kontrola externých partnerstiev a prispôsobenie

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reviewing external partnerships, and adapting processes to customer needs. Addressing employee satisfaction, financial planning, and strategic marketing are crucial for success. Embracing EFQM principles fosters continuous improvement, customer focus, and organizational resilience, positioning travel agencies as industry leaders. EFQM provides a valuable framework for enhancing performance and quality in a competitive landscape.

Keywords: EFQM model, Travel agency evaluation, Service modernization, Customer satisfaction, Organizational excellence.

procesov potrebám zákazníkov. Riešenie spokojnosti zamestnancov, finančné plánovanie a strategický marketing sú kľúčové pre úspech. Prijatie princípov EFQM podporuje neustále zlepšovanie, zameranie na zákazníka a organizačnú odolnosť, vďaka čomu sú cestovné agentúry lídrami v odvetví. Model EFQM poskytuje cenný rámec na zvýšenie výkonu a kvality v konkurenčnom prostredí.

Kľúčové slová: Model EFQM, Hodnotenie cestovných agentúr, Modernizácia služieb, Spokojnosť zákazníkov, Dokonalosť organizácie.

Introduction

In today's dynamic and fiercely competitive business landscape, organizations across various industries continually strive to enhance their performance, efficiency, and overall effectiveness. This relentless pursuit of excellence is particularly evident in the travel and tourism sector, an industry characterized by rapid globalization, technological advancements, and evolving consumer preferences.

Within this context, the European Foundation for Quality Management (EFQM) model has emerged as a widely recognized framework for organizational excellence. Initially developed in the 1980s by the European Foundation for Quality Management, the EFQM model provides a holistic approach to assessing and improving organizational performance, emphasizing the importance of leadership, strategy, people management, partnerships, processes, and results.

However, while the EFQM model has been extensively applied across various sectors, its utilization within travel agencies remains relatively underexplored. Travel agencies are pivotal in facilitating travel experiences for individuals and businesses, serving as intermediaries between travelers and service providers such as airlines, hotels, and tour operators. In an industry where customer satisfaction, operational efficiency, and innovation are paramount, applying the EFQM model holds immense potential for driving sustainable growth and competitive advantage.

The justification for exploring the application of the EFQM model in travel agencies stems from several key considerations:

- Increasing competition: The travel industry is experiencing unprecedented competition, with traditional players facing challenges from online travel agencies (OTAs), sharing economy platforms, and niche service providers. In such a hypercompetitive environment, differentiation through superior service delivery and operational excellence is critical for survival and success.

- Customer expectations: Today's travelers are more discerning and demanding than ever before. They expect personalized experiences, seamless booking processes, and exceptional customer service throughout their journey. Travel agencies must, therefore, prioritize continuous improvement initiatives to meet and exceed these evolving expectations.

- Complex ecosystem: Travel agencies operate within a complex ecosystem involving multiple stakeholders, including travelers, suppliers, technology providers, regulatory bodies, and industry associations. Effectively managing these diverse relationships and optimizing processes across the value chain are essential for enhancing overall performance and sustainability.

- Digital disruption: The advent of digital technologies has revolutionized the way travel services are marketed, sold, and consumed. From online booking platforms to mobile apps and artificial intelligence-powered chatbots, digital innovation is reshaping the industry landscape and redefining customer interactions. Travel agencies must embrace digital transformation strategies to remain competitive and relevant in this digital age.

- Quality Management: Quality management principles lie at the heart of the EFQM model, emphasizing the importance of continuous improvement, stakeholder engagement, and organizational learning. By adopting the EFQM framework, travel

agencies can systematically assess their strengths and weaknesses, identify areas for improvement, and implement best practices to enhance overall quality and performance.

In light of these factors, applying the EFQM model in travel agencies presents a compelling opportunity to foster organizational excellence, drive operational efficiencies, and deliver superior value to customers. By embracing a culture of excellence and leveraging the principles of the EFQM model, travel agencies can position themselves for long-term success in an increasingly competitive and dynamic industry landscape.

The paper is organized as follows. The introduction highlights the significance of effective management amidst economic challenges and global competition. It introduces the EFQM model as a pivotal quality management tool developed by European industry leaders in response to international competition. The model emphasizes leadership, strategy, and continuous improvement across all organizational aspects. Through the EFQM Foundation, members gain access to cutting-edge information, benchmarking, and expertise, facilitating ongoing improvement and enhancing customer satisfaction. The Theoretical Framework delves into the EFQM model, emphasizing its effectiveness in strengthening organizational management. Originally derived from Total Quality Management (TQM), the EFQM model offers a comprehensive approach to self-evaluation, focusing on achieving desirable organizational goals and fostering continuous improvement. With seven main criteria, it evaluates various aspects of an organization's performance, aiming for excellence in customer and employee satisfaction while considering environmental impact. The model evolves, incorporating the "Design Thinking" methodology to facilitate organizational change and adaptation. Although implementation demands preparation and resources, the benefits include enhanced organizational dialogue, detailed self-assessment reports, and potential eligibility for quality awards. The RADAR evaluation tool complements the EFQM model, assessing organizational maturity and process effectiveness. Before application, clear goals and conditions must be set, with options for either incorporating the model into strategic management or tailoring it to specific organizational needs. Ensuring understanding, sufficient resources, and employee support are crucial for successful implementation. The

methodology involves establishing desirable outcomes such as modernizing service offerings and increasing competitiveness. Various questionnaires assess customer satisfaction, employee satisfaction, and societal impact. Planning a comprehensive system of approaches and procedures is crucial, emphasizing objectivity and extensive information. Questionnaires for clients, employees, and random respondents gauge satisfaction and engagement. The EFQM model provides a framework for organizational improvement, requiring thorough self-evaluation and active participation from all levels of management. Implementing the model is a long-term endeavor, demanding a deep understanding and continuous commitment from the management team. The results and discussion section highlights the evaluation of a selected travel agency based on the EFQM model's criteria. Scores were assigned for each criterion, reflecting the agency's performance in areas such as purpose, vision, and strategy; organizational culture and leadership; engaging stakeholders; creating sustainable value; driving performance and transformation; stakeholder perceptions; and strategic and operational performance. The travel agency achieved a total rating of 696 out of 1000 points. While it excelled in certain aspects like leadership and stakeholder engagement, there were areas requiring improvement, such as updating policies, enhancing customer-centric processes, and ensuring financial sustainability. Recommendations include regular employee meetings, external expert involvement in leadership, policy innovation, and reevaluation of financial plans. Client satisfaction was noted as a strong point, yet there were concerns about employee compensation and working conditions.

Additionally, efforts to enhance the agency's visibility through marketing initiatives were suggested to address its relatively low local recognition. As a result, the EFQM model provides a valuable framework for travel agencies to improve performance and quality, fostering continuous improvement and positioning them for success in a competitive industry landscape. Embracing EFQM principles can lead to streamlined processes, optimized resource allocation, and superior service delivery, ultimately enhancing customer satisfaction and organizational resilience.

Theoretical Framework

When a company is prosperous, it does not necessarily mean it is well managed. It can be the initial popularity of a particular industry, the

mistakes of the competition or the overall positive economic growth of the country in which it operates. Despite its success, however, it may have even higher growth prospects (Hornikova, 2006). Companies are increasingly focusing on quality management in today's unfavorable economic conditions and with the sharpening of global economic competition. Improving the quality of management processes and introducing modern quality management systems is one of the possible ways for companies to achieve favorable economic growth (Madarova, 2007).

One of the most effective quality management methods is the EFQM model, which leads companies to pay attention to results and assumptions. The EFQM model was created in cooperation with the European Foundation for Quality Management founders in 1988. Fourteen of the most substantial European manufacturing companies, with the support of the European Commission, developed an initiative that led to the creation of the EFQM Foundation and its model (CAF Centre, 2023; Vartiak & Jankalova, 2017). The main motive was to restore and strengthen the competitiveness of European companies against American and Japanese companies in the global market. The EFQM model is a management tool intended to comprehensively assess a company and its performance. It focuses on both business and public sector organizations. Its main task is to show that the results correspond to the assumptions made by top management (Garbarova, 2017).

The model emphasizes the role of leadership in the enterprise, the policy and strategy used, and the impact on workers, resources, and partnerships used. The resulting indicators are customer relationships, workers, and the company. The main principle of this model is the principle of continuous improvement, which applies to all business activities which can be achieved using available modern management methods and proven practices and thus ensure the progress of the business (CAF centre, 2023; Vartiak & Jankalova, 2017).

Thanks to the EFQM foundation, its members have access to the latest information and trends in the field of quality management and improving the performance of the organization, to benchmarking of best practices of organizations applying for the European Quality Award, and also have the opportunity to use the know-how

acquired in this way directly in their implemented projects for customers and the chance to use the know-how acquired in this way for the permanent improvement of the quality of the services offered and the increase of customer satisfaction (Broska & Nurin, 2020).

The EFQM model has proven to be an effective tool for improving organizational management. The essence and purpose of the EFQM model of excellence is the development of driving forces and means for achieving previously desirable goals of the organization. For organizations that want to get an overall picture of their assumptions and make their results visible to themselves and those around them, the EFQM excellence model is an ideal practical tool for self-evaluation (Vartiak, 2015).

The EFQM model was created from the principles of TQM (Total Quality Management) and was initially designed to meet the needs of private sector organizations. Gradually, however, public administration organizations began to draw on the experience of organizations from the business sector and exchange these experiences with each other. Given that the model was created to obtain a general system capable of evaluating the state of the organization at a particular time, its strength is the ability to assess the organization from a relatively objective point of view and to repeat this evaluation regularly. The results of the assessments provide valuable indicators, documents and feedback for long-term and medium-term planning and management of the organization (Jintana et al., 2020).

The model has seven main criteria. The structure of the seven criteria identifies the main aspects that require attention in any business analysis. The criteria indicate the primary outputs that must be assessed in the company's evaluation. The model's logic assumes that excellent organizational results can only be achieved under conditions of maximum customer and employee satisfaction while respecting the environment (Garbarova, 2017).

The EFQM model (Figure 1) addresses the real problems facing today's modern organizations and offers them data-driven tools and analytics, the use of which provides meaningful insights, data and support to organizations and individuals and helps them feel be part of the process, learn and be part of the EFQM community (EFQM, 2023).

Figure 1. The EFQM Model.

The new model, created using the "Design Thinking" methodology, has changed from a simple self-assessment tool to an offering tool with the necessary framework and methodology to assist with daily change, transformation and disruption that individuals and organizations face. Simply put, the EFQM Model will help any organization achieve success by measuring where it is on its way to creating sustainable value for its key stakeholders and the organization. It will help it understand the gaps and possible solutions available and enable it to progress and significantly improve the organization's performance (EFQM, 2023).

There is a demand in the market for introducing a certified quality standard for service companies, especially in emerging markets. In many cases, businesses need a little help to move toward excellence. However, companies must implement certain basic concepts to ensure the effective use of the excellence model. The EFQM model is dynamic and focuses on the organization's growth, creates space for improvement, and integrates various management elements. The benefit of using the EFQM model is the performance of a comprehensive analysis, which also serves as a self-assessment. Another benefit is the opening of dialogue within the organization, which is focused on strategic management issues, the processes taking place in the organization, and its strengths and weaknesses from the perspective of customers' purchasing behavior (Garbarova et al., 2017). Thanks to the application of the model, there is time and space for discussion, which cannot be carried out during the ordinary course of the organization. By compiling a self-evaluation report, the organization gets a detailed picture of its activity, which helps solve shortcomings. When applying the EFQM model, the organization also paves the way for obtaining a national or even European award for quality. (Rentkova & Vartiak, 2017; Shnyrkov et al., 2019; Zorkociova et al., 2019).

On the other hand, applying the EFQM model requires relatively demanding preparation, fact-finding, and documentation to prepare reports. The fact that the degree of critical view of the evaluator can also lead to more severe disputes in evaluating individual and sub-criteria is also not negligible. Suppose the organization decides to do an external consultation or wants to apply for a quality award. In that case, the costs associated with evaluating the self-assessment report must be considered (Andrieiev et al., 2023).

An essential part of the model of excellence is an evaluation tool called RADAR (Figure 2). It is a closed cycle consisting of five steps. The RADAR principle is simple: the company sets the expected or desired results and develops approaches to achieve them. He will then apply them in practice. Over time, it therefore evaluates (EFQM, 2023; Vartiak, 2015):

- achieving goals and trends (Results),
- suitability and reliability of the chosen approaches (Approach),
- degree of actual application and systematicity (Deployment),
- measurement and improvement (Assessment),
- reviewing lessons for the future and learning (Refinement).

These logical links then require the organization to determine the outcomes it aims for as part of its policy and strategy process. The results reflect

both the financial and operational activities of the organization, including the perception of stakeholders. Furthermore, it is essential now and in the future to plan and develop an integrated set of approaches to ensure results and scale up the approaches systematically to ensure their full implementation. Prioritize, plan and implement improvements where necessary based on evaluation and review of techniques based on

results achieved and learning activities (Garbarova, 2017).

RADAR is also an excellent tool for evaluating difficult areas, such as the organization's maturity and processes. Although the RADAR approach was developed with the EFQM model, it can also be successfully used outside the seven criteria of the EFQM model (EFQM, 2023; Hnatek, 2008).
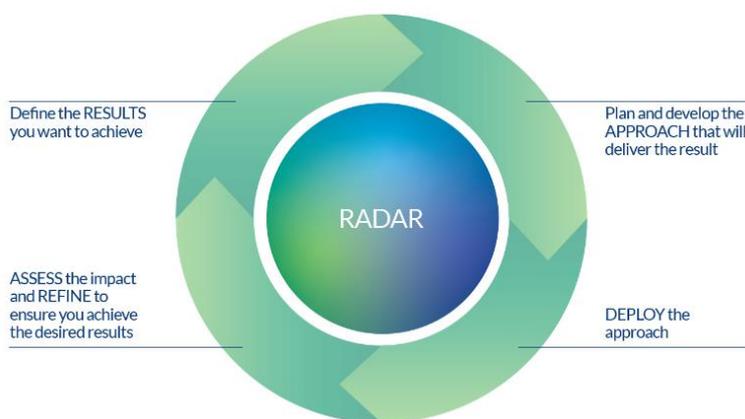
Figure 2. The RADAR logic.

Before applying the model in business practice, it is necessary to define a goal for this application. In general, it can be stated that the model is suitable for two different purposes:

1. To incorporate the EFQM methodology into management practice to obtain indicators for strategic management, it is necessary (Miknevicius, Jasinskas, Savitskyi, Sauliuk & Olefir, 2022):

- the time horizon in which the evaluation will be carried out – after the implementation of the program, the self-evaluation will be carried out every two years,
- responsible persons – director of the travel agency,
- qualification of persons participating in the project – training of employees by the external company GOA-WorkBench,
- essential automated support – SAETO software from the external company GOA-WorkBench,
- cooperation with an external expert on the issue – the company GOA-WorkBench.

2. To apply the model in line with the current need of the company in the principle of creating a model tailored to the given purpose, it is necessary:

- commission an external expert to carry out the assessment,
- carry out a self-assessment before and after the start of the project,
- compare the results of input and output control,
- evaluate the contribution of the project.

For the perfect functioning of the model of excellence, it is necessary to ensure that the following conditions are met (EFQM, 2023):

- understanding how to apply EFQM – training conducted by GOA-WorkBench,
- setting a clear goal – modernization of the service offer and subsequent increase in competitiveness and market share,
- allocation of sufficient funds for project implementation - use of funds from the created fund,
- error-free administration – controlled by SAETO software from GOA-WorkBench,
- support from employees – employee participation in the process,
- suitable system – SAETO software from GOA-WorkBench,
- complexity,
- adapting the organization's standards – creating an internal directive.

Methodology

The paper aims to apply the EFQM model to evaluate the degree of excellence achieved by the selected travel agency. To ensure the rigor and validity of the paper, several measures were taken:

- Data triangulation: Employing multiple data sources can enhance the study's credibility and reliability. This includes qualitative data (interviews, focus groups, participant observation). Triangulating data from various sources provided a more comprehensive understanding of the phenomenon under investigation and helped validate findings.
- Verification by multiple researchers: Involving five researchers or a research team in the study mitigated individual biases and enhanced the robustness of the research process. Collaborative data analysis, interpretation, and peer debriefing ensured the perspectives or assumptions of a single researcher did not influence findings.
- Peer review: Subjecting the research design, methodology, findings, and interpretations to peer review by the Danubius University experts in the field provided valuable feedback and validation.
- Transparent reporting: Maintaining transparency in reporting the research process, including methods, data collection procedures, analysis techniques, and limitations, enhanced the study's trustworthiness. Transparent reporting allows readers to assess the validity and reliability of the findings and draw their conclusions.

By incorporating these rigorous methodological approaches, researchers could strengthen their study's validity, credibility, and trustworthiness. These measures helped ensure that the findings accurately reflect the reality of the phenomenon under investigation and contribute to advancing knowledge in the field.

The data collection process involved a combination of qualitative and quantitative methods, including interviews with travel agency employees and the distribution and analysis of questionnaires. Here's a detailed description of each stage:

- Preparation phase: Develop a research plan outlining the objectives, research questions, and methodology. Obtaining necessary approvals and permissions from the travel agency's management and relevant ethics review boards, designing interview protocols and questionnaires tailored to capture pertinent information.
- Interviews with travel agency employees: Conducting semi-structured interviews with employees and use open-ended questions to explore employees' perceptions, experiences, and practices related to EFQM model principles and their application within the travel agency. Recording interviews with participants' consent to ensure accurate data capture and transcription for later analysis.
- Questionnaire distribution and evaluation:
- Developing a questionnaire based on the EFQM model criteria and dimensions, incorporating both closed-ended (quantitative) questions. Ensuring the questionnaire is clear, concise, and relevant to the research objectives, with appropriate response options and scales. Collecting completed questionnaires through paper-based methods, ensuring confidentiality and anonymity of respondents. Conducting a thorough analysis of the questionnaire responses.
- Integration of findings:
- Integrating findings from interviews and questionnaires to provide a comprehensive understanding of the application of the EFQM model within the selected travel agency.

Procedure for applying the EFQM model in the selected travel agency:

3. Establishing desirable outcomes – Modernization of the service offer and subsequent increase in competitiveness and market share. It is evaluated:

- customer satisfaction in the form of a questionnaire (Questionnaire for clients),
- employee satisfaction in the form of a questionnaire (Questionnaire for employees),
- impacts on society in the form of a questionnaire (Questionnaire for random respondents – general public),
- key results of the organization.

4. Planning a comprehensive system of approaches and procedures – To achieve desirable results now and in the future, the Ibis travel agency must establish a system of approaches and procedures. The primary element of the system is objectivity, without which this system cannot function properly. Furthermore, the information must be

comprehensive and known to all interested parties.

The questionnaire for the clients of the given travel agency contained six questions:

1. How do you rate the services provided by the given travel agency?
2. How do you rate the environment of the given travel agency?
3. How do you rate the willingness of the employees of the given travel agency?
4. How do you rate the quality of the information provided by the given travel agency?
5. How do you rate the time spent at the given travel agency?
6. Would you return to that travel agency?

The questionnaire for the employees of the given travel agency contained six questions:

1. How do you rate the director of the given travel agency?
2. How do you rate the work team at the given travel agency?
3. How do you rate the working environment in the given travel agency?
4. How satisfied are you with the financial evaluation at the given travel agency?
5. How satisfied are you with the non-financial evaluation at the given travel agency?
6. How satisfied are you with the working hours at the given travel agency?

The questionnaire for random respondents (general public) contained six questions:

1. Do you use the services of travel agencies?
2. Do you know the travel agency in question?
3. Have you ever used the services of a given travel agency?
4. Were you satisfied with the services of the given travel agency?
5. Do you still plan to use the services of the given travel agency in the future?
6. Would you recommend that your friends use the travel agency services?

The EFQM model does not determine the organization's approaches but defines the framework requirements to which the organization should respond in its practice. That is why comparison with practice is essential for using the model. As part of the self-evaluation, it is not enough for the organization to state that the implemented approach is suitable but to explain why it is ideal. Therefore, the support and participation of top management team members

and other employees are priorities. It is also necessary to appoint a project manager and establish the powers and responsibilities of each team member (Michek, 2006).

When applying the model, it is necessary to realize that its introduction is long-term, so the results will not appear immediately. The essence of the model is simple, but its application is quite tricky. Management must understand its laws and work with them permanently and long-term (Jaeger, 2018).

Results and Discussion

Based on the answers of employees, clients, and the general public, it was possible to evaluate the seven individual criteria of the EFQM model verbally and point-wise concerning the given travel agency.

Evaluation for the Purpose, Vision & Strategy criterion: 70 points out of 100

The policy is articulated, supported by ongoing processes, and prioritizes stakeholders' interests. Thus, the policy is based on stakeholders' current and future needs. However, the policy is not based on survey information and has not been updated for long.

Evaluation for the criterion Organizational Culture & Leadership: 80 points out of 100

The leader of the team is the director of the travel agency, who, as the founder, sets the goals of the travel agency and oversees that they are achieved. The director of the travel agency, as a model of corporate culture, is interested in the process and makes sure that it is constantly improved. In addition to leading and motivating travel agency workers, he is also involved in relations with clients and partners. As the leader of the implementation team, the travel agency's director knows the company and its processes, as well as its strengths and weaknesses. Still, his judgment may be distorted and not objective.

Rating for the Engaging Stakeholders criterion: 60 points out of 100

Both external partnerships and internal resources are managed to support the policy. In contrast, financial resources are considered, and attention is paid to the care of assets and knowledge inside the travel agency. However, the assets of the travel agency are not valued, and external partner relations are not re-evaluated due to the non-innovated policy.

Rating for the Creating Sustainable Value criterion: 160 points out of 200

Processes in a travel agency are systematically designed and managed to achieve increased value for clients. However, they are not updated according to needs, which can lead to deterioration of relations with clients and within the company.

Rating for the Driving Performance & Transformation criterion: 90 points out of 100

Workers are appropriately planned, managed and their potential is developed so that their knowledge and competencies are identifiable. Workers have the necessary competencies; they conduct dialogues with each other during the process and are rewarded depending on their results. However, there are no regular meetings between the employees and the director of the travel agency to evaluate the company's processes.

Rating for the Stakeholder Perceptions criterion: 120 points out of 200

Evaluation of what the travel agency has achieved concerning its employees, including employee satisfaction and motivation, and evaluation of their performance. The assessment was a questionnaire filled out by six travel agency employees.

Evaluation of what the travel agency has achieved in relation to the local public. The involvement of the travel agency in public projects and the awareness of members of the local public about the travel agency are evaluated. The evaluation took the form of a questionnaire filled out by 60 random respondents in the given city.

Evaluation of what the travel agency has achieved concerning planned performance. The results of critical financial indicators are evaluated in terms of processes, external partners, internal resources, information, and knowledge. The evaluation compares the planned volume of sales and revenues with the achieved results. The travel agency did not fulfil its plan 100%, so the revenues did not reach the expected value. However, it is not at a loss despite this.

Evaluation for the Strategic & Operational Performance criterion: 116 points out of 200

To achieve its new strategy, the travel agency pays attention to the consistent and consistent application of the adopted system, which is regularly checked by the director of the travel agency and subsequently recorded in the reports. The travel agency should evaluate the applied system based on monitoring processes and parties involved in the system. When considering the system, it is necessary to consider four criteria of results: relationship with clients, relationship with employees, relationship with the company, and results of critical activities. An evaluation of what the travel agency has achieved concerning its clients, including overall image, character of services, sales and loyalty. The assessment was a questionnaire completed by 130 travel agency clients.

According to the criteria of the EFQM model, the given travel agency achieved a rating of 696 out of 1000 points. The criteria of direction were evaluated with 150 points out of 200, the criteria of execution with 310 points out of 400 and the criteria of results with 236 points out of 400.

Based on these results, the travel agency must continue caring for its employees as it has been. However, it would be appropriate to hold regular meetings that would benefit the employees and the management of the travel agency.

The selection of the leader of the implementation team, who was the director of the travel agency, was well-evaluated, but even so, his objectivity cannot be guaranteed. Therefore, an external expert on the issue who is familiar with the operation of the travel agency would be a better choice. The given travel agency stands out for its precise formulation of goals, but the negative is that the policy has not been updated for a long time. It is therefore necessary to regularly adjust and innovate the policy of the travel agency so that the company can respond flexibly to the market situation. It must be emphasized that external partnerships are managed based on policy, but since the policy is not updated, partnerships are not reviewed. It is not sure whether they are all beneficial for the company. Therefore, it would be appropriate for the innovation of the travel agency's policy to be accompanied by a review of external partnerships. Although the processes are designed and managed in the interest of the travel agency's clients, they are not modified and innovated according to the customers' changing requirements. It would, therefore, be suitable for the travel agency to conduct regular surveys of client satisfaction with services and adjust processes based on their results.

Furthermore, the positive management of the given travel agency is evaluated as a big plus. However, the plan of the travel agency was not fulfilled 100%, which can be attributed to the deteriorated economic situation and, thus, the weakened purchasing power of the population. The recommendation for the travel agency is to establish more realistic financial plans that also consider the deterioration of the market situation. The clients of the given travel agency positively evaluated the workers, the quality of information, the environment, and the services of the travel agency. They said they would return to the travel agency again, which expresses their loyalty. All employees of the given travel agency positively evaluate the director, the work environment, and the non-financial compensation offered by the travel agency. Still, on the other hand, they are only moderately satisfied with the financial compensation. Therefore, it would be good for the travel agency's management to re-evaluate the employees' salaries and possibly invite them to discuss and make suggestions, which could lead to the satisfaction of both parties.

Furthermore, one of the employees is not satisfied with the work team and with the working hours in the travel agency. It would be necessary to conduct a dialogue with the employee in question, which would reveal the reason for his dissatisfaction and subsequently take steps to strengthen the collective and integrate him. However, changes in working hours in the travel agency are not possible, because employees work 9 hours, during which they are entitled to a one-hour lunch break. On the other hand, based on the general public assessment, the given travel agency is relatively little known in its city. The travel agency should, therefore, develop more marketing activities, such as advertising, sponsoring, and participating in public and charity events, which would improve awareness of the travel agency.

Conclusions

The paper aimed to apply the EFQM model to evaluate the degree of excellence achieved by the selected travel agency. In summary, considering the travel agency's performance through the EFQM model has provided valuable insights into areas of strength and areas needing improvement. While the agency has excelled in employee care and goal clarity, there are notable areas for enhancement. These include updating policies, regularly reviewing external partnerships, adapting processes to evolving customer demands, and establishing more realistic financial plans. Moreover, addressing employee

satisfaction concerns, particularly regarding financial compensation and working hours, is crucial for maintaining a positive work environment. Additionally, efforts to increase the agency's visibility through strategic marketing initiatives are essential for expanding its reach and customer base. By implementing these recommendations and fostering a culture of continuous improvement, the travel agency can further enhance its performance position as a leader in the industry and reach the maximum points in the subsequent evaluation.

In conclusion, the EFQM model serves as a valuable framework for enhancing performance and quality within the operations of a travel agency. The model encourages continuous improvement, customer focus, and employee engagement through its holistic approach to organizational excellence. By applying EFQM principles, travel agencies can streamline processes, optimize resource allocation, and ultimately deliver superior service experiences to customers. Embracing the EFQM model fosters organizational resilience and positions travel agencies to thrive in an ever-evolving industry landscape.

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Football live text commentary as a speech genre (Based on materials in English and Ukrainian languages)

Текстовий онлайн-репортаж футбольних матчів як мовленнєвий жанр (на матеріалі англійської та української мов)

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ABSTRACT

This article presents a comprehensive analysis of the speech genre "live text commentary" within the football discourse. The analysis procedure covers seven criteria, with the help of which the communicative-pragmatic genre aspects are examined in English and Ukrainian languages. The addresser's communicative goal and the recipient's corresponding model have been identified. The narrative content of the communicative event has been clarified. Potential preceding and subsequent speech genres have been identified. The peculiarities of the verbal realization of the author's communicative goal have been taken into account. The results of the research have assisted in determining the leading characteristics of the hybrid genre. Common and distinctive features in the represented languages have been established.

Keywords: speech genre, live text commentary, football match, English language, Ukrainian language.

АНОТАЦІЯ

У статті представлено комплексний аналіз мовленнєвого жанру «текстовий онлайн-репортаж» в межах футбольного дискурсу. Процедура аналізу охоплює сім критеріїв, за допомогою яких розглянуто комунікативно-прагматичні жанрові аспекти в англійській та українській мовах. Виявлено комунікативну мету адресанта та розглянуто відповідну модель адресата. З'ясовано подійний зміст комунікативної події. Ідентифіковано потенційні попередні та наступні мовленнєві жанри. Враховано особливості вербального втілення комунікативної мети автора за допомогою мовного аналізу. Результати дослідження допомогли визначити провідні характеристики гібридного жанру. Встановлено спільне і відмінне у представлених мовах.

Ключові слова: мовленнєвий жанр, текстовий онлайн-репортаж, футбольний матч, англійська мова, українська мова.

INTRODUCTION

Research in linguistic genology is mainly concerned with scientific, everyday and official business discourses. Within the football discourse, such a new genre as Football Live Text Commentary has emerged among interviews, reports and other genres. Its nature, functioning, communicative-pragmatic and linguistic characteristics in the comparative aspect still remain unexplored. The relevance of the research topic is due to the applied and anthropocentric focus of modern linguistics on the study of cognitive and discourse phenomena,

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especially those that reflect various aspects of intercultural interaction between speakers of unrelated languages (English and Ukrainian) related to the nature of the genres of such communication.

The purpose of the study is to identify the communicative and pragmatic organisation of the speech genre 'Football Live Text Commentary' and the peculiarities of its means of implementation in English and Ukrainian.

The object of the study is the speech genre 'Football Live Text Commentary', in which the corpus of selected texts is a complex combination of a text segment, an image, a time stamp and their chronological sequence.

The article consists of an introduction and a literature review and theoretical framework, which include an overview of recent research. The methodology section covers the stages of the study and the methods used to present the research results. The main material is presented in the Results section, followed by the Conclusions section and the list of references.

LITERATURE REVIEW

On the one hand, a football match consists of a relatively small number of repetitive events, such as actions on the field, coaches' tactic maneuvers, intensity increase, and decrease, adherence to the rules, etc. The discussion revolves around specific cases of genre-creation, which are structurally and compositionally manifested in multiple texts, namely, sports interviews, sports (football) notes, post-match reports, oral commentaries, etc.

At the stage of selecting the materials of online match broadcasts, we analysed the corpus of texts that 'fill' the webpage of the publications in English and Ukrainian. Football and the media, media and discourse: emotions and multilingualism in football are presented in the linguistic study by Eva Lavric (2008). The language of sport, in particular regarding the language of football, is presented in a study by Taborek (2012).

This is an attempt to analyse and highlight the peculiarities of the language of sport and to offer scientific perspectives on the language of football. The research corpus is represented by examples from Polish, German and English. The linguistic specificity of sports texts in contemporary online journalism is presented in the scientific research by Kolupaieva (2016).

The genre of football live text commentary in linguistic explorations is characterized as relatively new and classified as a genre of news commentary (Chovanec 2006, 2008a, 2008b, 2018) in terms of functioning on web pages of online publications. Werner (2016) conducted a cross-cultural analysis which was based on material in English and German languages to determine register features of live online commentaries.

A study by Krone (2005) contains an empirical comparison of the syntactic behavior of verbs in a certain register, namely television football commentary. This study provides a contrastive aspect, showing the use of verbs in English and German spoken football commentary, and is significant for complementing comparative studies of written texts. Batsevych (2005) presented a linguistic study on live sports TV commentary as a genre of television discourse from the communicative perspective. Sports video interviews in Ukrainian and German languages are introduced in a study by Dyakiv (2022). The author identified genre peculiarities, as well as the causes of communicative failures, considering the interviewer and interviewee's positions, along with the influence of communication noise and structural aspects of the genre.

Taking into account the literature review and existing linguistic research in the field of linguistic genology and pragmalinguistics, we have established the following. Already at the stage of comparative analysis of English and Ukrainian language materials, it becomes clear that reporters, working with the texts in English "embed" readers' comments, thus making the description of the match not a one-person voice but a heteroglossic text, an interactive text presentation. As for Ukrainian live text commentary, we concluded that it is a canonical monologic genre, a type of text commentary, most readers are likely to be familiar with.

There are two key points relevant to the concept of "new genre" that will determine the nature of "genre analysis":

- "…genres do not exist in isolation, but form complex, intertwined relationships" (Yakontova, 2009, p. 125).
- "Along with traditional types of texts, purely online web genres are emerging in online publications… certain genre fragments are modifying, and complicated genre forms are appearing." (Leshko, 2018, p. 250).

The first criterion incorporates recognition of various typological genre characteristics. The second criterion explains why, alongside traditional genres, we observe the existence of similar but modified forms of information coverage. The above reflects all the complexity of the presented genre of football live text commentary as a relatively new hybrid genre.

Jucker claims that live text broadcast of a football match, which comes down to the concept of live text commentary of a football match, can be defined as "written narratives that give a minute-by-minute account of a sports event while it is actually unfolding." (Jucker, 2010, p. 58).

According to Meier-Vieracker, "live text commentaries compositionally consist of a series of entries listed in reverse chronological order with the final moments of the game and the outcome documented at the top" (Meier-Vieracker, 2021, p. 277). The author does not focus on football exclusively, but his statement that "the single entries are composed of a) a time stamp indicating the minute of the match in which the described scene took place and b) the description" is completely suitable for defining and identifying a football match as a game with a predetermined duration.

The speech genre of "football live text commentary" is primarily realized through communication between a journalist-reporter and readers-commentators. A determining feature of football live text commentary is a kind of "presence effect" (live), which is recognized in linguistic explorations as the "present of commentary" – a specific commentary form (Batsevych, 2005).

METHODOLOGY

The methodological base of the study, which is an important criterion for the introduced scientific results and conclusions, involves the implementation and combination of different methods in stages. The comparative-typological method has been used to establish the regularities of communicative organisation and differences in the lexical and grammatical means of expression of of the speech genre "live text commentary"; the intent analysis technique has been used to analyse the communicative purpose of the warning in both languages; and the transactional analysis has been used to characterise the models of the addressee and the recipient.

The study developed a comprehensive methodology for comparing the speech genre "live text comentary" in English and Ukrainian, which was carried out in four stages.

At the first stage, the corpus of analyzed texts was selected by the method of continuous sampling to identify text comments published on the Internet. This analysis is based on live text commentaries in the English-language online newspaper The Guardian (www.guardian.co.uk) and the Ukrainian-language sports news website Sport.ua. (https://sport.ua/uk). The popularity of these materials is evidenced by the results of a search analysis. Search engine algorithms that take into account the number and quality of links to rank pages help explain why certain resources appear higher in search results. Other factors are taken into account, including those related to readership statistics. In particular, in Google search results, The Guardian ranks first for the search query "min-by-min report", while Sport.ua appears as a result for the search query "текстова трансляція матчу". The covered events include the broadcasting period of the 2023 UEFA Champions League, the 2023 Women's World Cup, as well as the 2023 English Premier League. The materials for analysis were extracted and reformatted into plain text, including basic data, such as the date of publication and basic information about the match. In addition, active hyperlinks allow access to the original text and its multimodal content, such as photo and video supplements, Twitter feeds, tables and graphs. The potential for influencing the main text is not overlooked in the analysis presented here. In this way, we have identified the formal, external structure of the text: the volume, the formal division of text segments, and the presentation of textual material.

At the second stage of the study, the pragmatic features of the speech genre "live text commentary" of a football match are identified and described. The purpose of the genre, an image of a generalized addresser and recipient as genre users, content of an event, the factor of communicative past as well as the factor of communicative future were analyzed. At this stage, the channel of communication, a webspace of online publications, was taken into account. The theoretical and methodological basis for the study of the speech genre is the expanded and 'modified' questionnaire by Florii Batsevych and the parameters of the linguistic expression of the speech genre, as well as the model of the analytical formulation of semantic primitives by A. Vezhbytska.

At the third stage, language means of implementing the communicative orientation of the genre were identified. The analysis of individual structural elements of live text commentary, such as the commentator's explanations and specifications, and the use of colloquial, evaluative, and emotional vocabulary, forms linguistic structures for expressing key moments of the game.

The final fourth stage contains the identification of the commonalities and differences in the context of communicative-pragmatic and linguistic characteristics. English-speaking and Ukrainian-speaking text commentaries document and correlate the commonalities and differences, which makes it possible to track patterns of functioning of the analyzed genre through a comparative method.

RESULTS AND DISCUSSION

In this section, we analyse in detail the communicative and pragmatic organisation of the speech genre 'Football Live Text Commentary' and the peculiarities of the means of its realization in English and Ukrainian.

I. THE COMMUNICATIVE AND PRAGMATIC ORGANIZATION

The analysis is based on a model in which seven parameters have been analyzed. From our perspective, these parameters are adequate for identifying live text commentary as a speech genre.

1. The author's communicative goal

The author's communicative goal in the live text commentary is comprehensive, since before "immersing" readers-commentators into the course of a football event the author analyzes the immersing environment, the course of a sporting event — …minute-by- minute or play-by-play reporting. It should be understood, that speech events in question are text comments, in which the author's verbal commentary is supplemented or accompanied by verbal comments of other authors and readers. (1) and (2) are examples of live comments in English:

> (1) *Mikel Arteta tells Sky you can feel the emotion on both sides and, in classic footballese, notes that both sides "are in a good moment". (arsenal_spurs_guar)* – other authors' comments.

> (2) *Oh man, this is fantastic. Football is the greatest.* – the author's commentary.

YOUNG FAN OF TURKISH CLUB SAMSUNSPOR waves to team bus as it passes each week, before it eventually makes surprise stop to say hello. Love to see clubs being mindful of these connections. Also love to see Goalkeepers Union looking out for their own. (arsenal_spurs_guar) – an "embedded" comment by the author of a Twitter post ("another author")

@ReckersLive Sep 25 He will never forget that. Frankie Salmon @frankiesalmon87 Sep 24 Think these could learn a lesson or two (Leeds United players ignore young fans) (arsenal_spurs_guar) – reader's comment.

In the provided excerpts of live comments, we observe that the author takes on a certain role — either as an author of the post or a commentator-reader expressing opinions or engaging in verbal disputes. Consequently, the communicative goal is a personalized form of self-expression, not a mere description of football match events.

At the "immersion" stage, in the preamble of the English-language live text commentary, the author sets the tone and thus "encourages" the establishment of communication with the anonymous audience:

> (3) *Rishi Sunak and the people of Islington don't agree on much, but they're all adamant it's a time for change. Sunak wants to fix 13 years of Conservative governance; Arsenal are desperate to end eight years of Manchester City dominance. (arsenal_man city_guar).*

As for the preamble, it is worth highlighting that the author of Ukrainian live text commentary aims to inform about the date, location, and time of the communicative event, and assess the level of preparation and analyze the course of the previous matches (communicative past):

> (4) *В неділю, 24 вересня, відбудеться поєдинок 6 туру Англійської Прем'єр-ліги, в якому граитмуть лондонські «Арсенал» та «Тоттенгем». Гра пройде в Лондоні (Англія) на полі стадіону «Емірейтс», початок – о 16:00 за Києвом.*
> *Команди йдуть врівень зі старту чемпіонату, в п'яти матчах здобувши по чотири перемоги і раз зігравши внічию. Краща різниця забитих і пропущених в «Тоттенгема» (13:5 проти 9:4 в «канонірів»), тому вони знаходяться на*

другому місці, а підопічні Артети – на четвертому. Очна зустріч якраз дозволить залишити опонента позаду і наблизитися до лідера «Ман Сіті», який в цьому сезоні очок ще не втрачав. (arsenal_tottenham_sport)

For both languages, it is crucial to create an emotional and symbolic background, that would correspond with the "reader's" request to be present and involved in the "cheering" and to evaluate what the journalist has expressed.

2. The general communicative sense.

The general communicative sense serves as a criterion for differentiating genres, that have a common communicative goal. In this case, the communicative sense of the speech genre can be identified through the model of analytical formulation of semantic primitives by A. Wierzbicka (1985, p. 494). That is, considering it as a frame, dissecting intentions into elementary illocutionary components, constitutive motives, emotions, and positions. In summary, the nature of the communicative sense of football live text commentary in the Ukrainian language can be expressed as follows:

"I, a sports commentator, describe the unfolding events on sports platforms in this way."

As for the English-language football live commentary, we note the following:

"I, a professional sports commentator, 'broadcast' the course of the sporting event in this way".

3. The concept of the addresser.

In both languages, the concept of the addresser can be generalized and presented as a professional sports journalist, who predominantly constructs texts about football. Data on professional achievements are publicly available, sometimes directly on the website.

The addresser of the Ukrainian live text commentary is a journalist, an expert in conducting live text commentaries, a specialist in team sports, involved in sports journalism since 2012 [1], or a news editor [2]. English-language football live text commentary is comprised of the posts of a commentator, who professionally could be a columnist and a nominee for a prestigious award among sports journalists (British Sports Journalism Awards) or a sports journalist, freelancer, or writer (Daniel Harris, Rob Smyth, Michael Butler «The Guardian»).

4. The concept of the recipient.

The model of the recipient is often about an unknown audience, interested specifically in reading about a certain sporting event. If we can identify the reader who left a comment, we consider this audience as non-anonymous fans — this is precisely what we notice in the Ukrainian live text commentaries:

(5) *AlexSem 19.09.2023 23:44 1. ...Я не розумію, як можна випускати фактично нову команду Шахтар, в 1 грі ЛЧ грати у відкритий футбол проти добре зіграного, досвідченого Порту??? 2. Що за екпертменти зі складом у матчі ЛЧ....? Дл чого це??...жесть...* (shakhtar donetsk_porto_sport)

It is worth noting, that in English-language live text commentary, the author "presides", formulates their text, and determines who will have access to it, and decides whether to include voices that provide feedback.

(6) *Email! "Rice is clearly overrated, as you intimate," says Titan Tempura. "For that money you expect silk, not just iron, sort of pun semi-intended."*
I think he can get there if he adds goals because his ball-carrying can compensate for his lack of a killer pass. Either way, though, playing against him must be a hateful experience. (arsenal_spurs_guar)

We differentiate readers-commentators, categorizing them into those watching a football match in all the possible formats and those who did not choose the television or radio broadcast of a football match. "Those who have watched" the football match will rely on the communicative past, referring to the previous viewing experience, like in the following comment:

(7) *AKIN @Akinjoshua2017 Oct 8*
Arsenal is winning the league (arsenal_man city_guar)

"Those who have not watched" a football match, in a sense, are not biased, without the intrusive idea of "disputing" the covered material:

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[1] Oleksandr Snitko «Sport.ua»

[2] Serhiy Rypiuk «Sport.ua»

> (8) *Viktor Shuper 19.09.2023 13:48*
> *буде виніс тіла, насправді не думаю що у Шахтаря будуть хоч якісь шанси. ми бачили кілька днів тому як вони мучились із Оболонню, граючи у більшості. і при цьому Оболонь навіть в меншості на фоні такої Шахти дуже пристойно виглядала. тут буде виніс тіла, це 100%* (shakhtar donetsk_porto_sport)

In either case, it involves a specific group of people, who are familiar with the game rules, and the specifics of its functioning, who interpret the means of language code used by a addresser correctly and without additional effort. What unites the types of readers presented above is that they are interested in a game itself more than in its result.

5. The narrative content.

In the speech genre of football live text commentary, the narrative content is shaped by the structural-compositional elements of the published material, serving as a communicative "event". We can observe that football live text commentary contains a conditional division of the narrative content of a television journalist's commentary, as proposed by Batsevych (2005), into three thematic groups: introductory, actual game, and concluding. The author characterized the thematic blocks of each presented group in detail, which entirely aligns with the text commentary. However, we conducted the analysis of a live text commentary, taking into account the "canonical" structure of the speech genre. According to Chovanec (2018, p.102), "the 'canonical' form of live text commentary includes the textual segments that describe the events of the game appear online in time-stamped posts, most typically arranged in a reversed chronological order, with the most recent posts appearing at the top of the screen". "It is known that one of the most important roles in sports-oriented materials is played by the header with the main information about the match (names of football teams, the current score, and further elements indicating players and characteristics of goals scored in the match), since, besides attracting the reader's attention, it expresses the journalistic intention (Kolupaieva, 2016, ст. 245)". (Premier League, The transcript of the 6th round match of the English Premier League):

> (9) *Arsenal*
> *Cristian Romero 26 o.g.*
> *Bukayo Saka 54 Pen*
>
> *Spurs*

> *Heung-Min Son 42*
> *Heung-Min Son 55* (arsenal_spurs_guar)

> (10) *Арсенал – Тоттенгем – 2:2. Текстова трансляція матчу* (*арсенал_тоттенгем_spor*)

The thematic block "introductory informative part" in English-language live text commentaries contains the introduction, known as "Preamble", followed by information about the opposing teams, several messages, and sometimes commentaries by other publications or commentators. In the Ukrainian-language live text commentaries, this thematic group does not involve a clear definition, but it is from this short message that an "event" of commentary starts.

A commentary of the actual game consists of cohesive text segments that relate to the specific moment of the match. They are usually identified by a time stamp indicating the minute in which a certain describable action took place. In both languages, addresser generate the mentioned text segments, which are not an uninterrupted verbalized product, allowing the author to maintain silence. "Silence" refers to the absence of a post with a time stamp, which means no noteworthy action is taking place on the field.

A concluding part may be thematically related to assessing the actions of the teams and their individual players, analyzing the events that occurred during the game. Also, evaluations of specific moments of the game, performances of individual players, and the tactics of the teams. In the Ukrainian-language live text commentaries, the mentioned thematic blocks are absent; we observe the announcements of the end of the sporting event (the 2nd round match of the group stage of the Champions League):

> (11) *03 жовтня о 23:55 ОлександрСнітко МАТЧ ЗАВЕРШЕНО!* (*inter_benefika_sport*)

6. The factor of the communicative past.

We interpret the factor of communicative past for a specific speech genre as events that concern "those who have watched" the football match. In this sense, such interpretation determines previous speech genres as potential ones and those related to the recipient. Additionally, previous speech genres may also be related to a addresser who relies on previous experience of "familiarity" with information about the match.

7. The factor of the communicative future.

In both languages, everything related to lively "discussion" of the results of a football game is recognized as a factor of a communicative future, which also has a potential nature. Clearly, communicative future is not limited to a mere "discussion" but involves a thorough analysis of a match. In English-language online publications, it is produced upon the end of the match and reflects a comprehensive view of the event that has been "commented on" before.

Fig. 1. Premier League Report *Arsenal – Spurs*
Source: The Guardian (2023)

In Ukrainian publications, we identified the following speech genre in the "reports" section, which is also quite potential and in terms of content is a deep analytical analysis of the match.
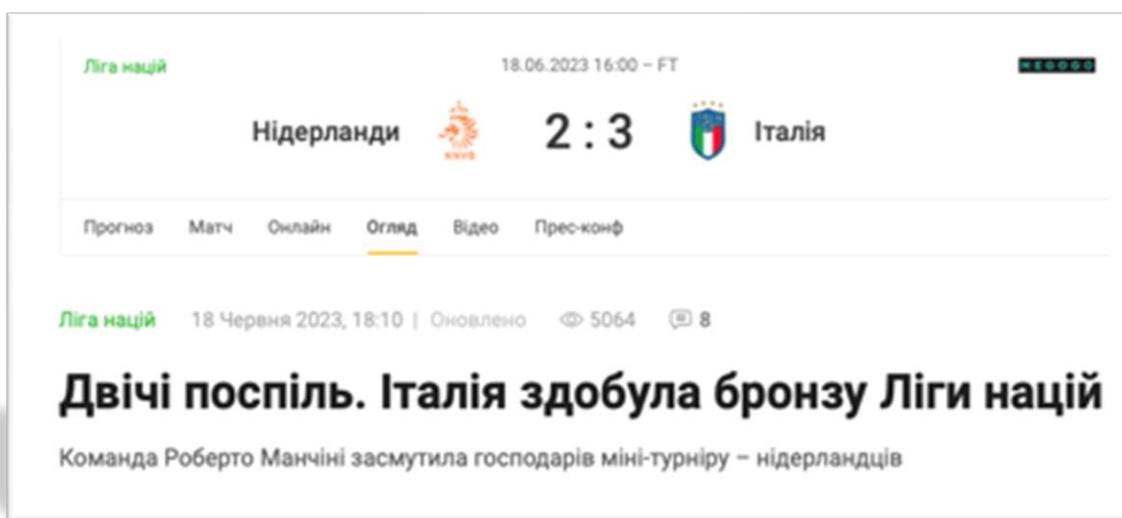
Fig. 2. Match report *the Netherlands – Italy*
Source: Sport.ua (2023)

II. THE PARAMETERS OF LINGUISTIC REALIZATION.

It is reasonable that "commentary" of a football match as a communicative event involves using a significant amount of lexical and grammatical means through which the game process is embodied in the text. Among the main problems of language in sports texts, the following can be distinguished: the emergence of numerous

linguistic clichés and jargon, inaccuracy in presenting information, and oversaturation of hyperbolic language structures to express key moments in the game or main tendencies (Kolupaieva, 2016).

Very often, we appeal to the genre-specific features of football live text commentary, namely the combination of the elements of spoken and written language. We consider the peculiarities of their verbal embodiment on various linguistic levels — from the choice of vocabulary and syntactic structures to the discourse organization level.

Lexical means of linguistic realization are presented with the use of colloquial, emotional-evaluative vocabulary. According to Batsevych (2005), a significant part of communicative units of language code in Ukrainian-language commentaries consists of professionalisms. He adds that the language of sports publications is frequently characterized by sports jargon, which is emotional, expressive, and figurative. The researcher of football vocabulary, Struhanets (2016), claims that there is hardly any clear differentiation between professional terms and professional jargon, but he attempts to distinguish them. The author points out that the term "professional jargon" is used to denote figurative-expressive concise words that have neutral equivalents and function in the spoken language of representatives of certain professions or occupations, united by common interests or belonging to a social-professional community (Struhanets, 2016, p.63)." In the football live text commentary author's language, sports jargon dominates and serves as a means of emotionally expressive expression and self-expression of the speaker. The use of sports jargon, in our opinion, can be explained by the author's aim to establish a "connection" with a multimillion readership and to convey the course of events on the football field as clearly as possible.

Lexical and grammatical means embodying the communicative goal of the addresser are:

1. Football jargon.

The features of football jargon functioning are determined within a classification that takes into account the multidimensionality of a football match. This includes names of teams, players' nicknames, characteristics of footballers' professional skills, names of equipment, and characteristics of players' actions on the field.

The most common jargon in football communication is anthroponymical jargon, serving to name a player's surname:

> (12) *17 min: What a let-off for Raya! (David Raya)* (arsenal_man city_guar)

> (13) 90'
> *Назарина зіграв грубо. (Yehor Nazaryna)* (shakhtar donetsk_porto_sport)

The atypical model in players' names proposed by Struhanets (2016)

"Players' name ← characteristic features of the football club's location" is represented in the names of English football teams:

> (14) *27 min Spurs have a big problem now, and I hate to say this so soon into proceedings, but their best bet now is to keep it at 1-0 till 75 minutes. Spurs ← FC Tottenham Hotspur (Tottenham, also Tottenham district in London, historically an important center of the equestrian sport, where sportsmen used sours as part of their equipment).* (arsenal_spurs_guar)

The names of Ukrainian football teams also correspond to the format of the model "Players' name ← characteristic features of the football club's location":

> (15) *40'+3*
> *Гірники контролюють м'яч. The Miners ← FC Shakhtar Donetsk (Mining industry of the region)*

In this case, the presented model is "Players' name ← FC emblem":

> (16) *7'*
> *Дракони володіють мячем. The Dragons ← FC Porto (Portugal)* (shakhtar donetsk_porto_sport)

A group of terms related to the description of tactical actions of players on the field and their characteristics can also be classified as the football jargon:

> (17) *2' НЕБЕЗПЕЧНО!*
> *Після навісу з правого флангу Тapeмі головою пробив у протихід Різнику, і голкіпер зреагував!* (shakhtar donetsk_porto_sport)

(18) *32 min AND HE'S MAKING IT NOW! Odeghaard presses Vicario, he feeds a short, straight pass to Maddison, who takes a touch … and Jesus nails him, only to lash over the top! that is very scruffy finishing, characteristically so, and is exactly why I think Arteta will replace him next summer.* (arsenal_spurs_guar)

2. Negatively coloured vocabulary.

In English, negatively coloured vocabulary is expressed by an adjective defining the quality of a football goal. One of the characteristics of Ukrainian live text commentary is the use of adverbs and verbs indicating the intensity of the actions on the football field, and giving an emotional tone to certain moments of the football game.

(19) *It was **a crap goal**, befitting the game, and Arsenal will not care one bit about that.* (arsenal_man city_guar)

(20) 1'
*Господарі одразу почали **агресивно пресингувати**.* (shakhtar donetsk_porto_sport)

3. Emotional-evaluative vocabulary.

Emotional-evaluative vocabulary is focused on expressing an opinion on the course of the game and evaluating a specific player's participation. In English-language text commentaries, we observe the use of adverbs and adjectives. In particular, adverbs serve to intensify the degree of the adjective and noun phrases, helping identify a specific player. Ukrainian-language text commentaries also utilize noun phrases to characterize maneuvers on the field, particularly those considered successful in terms of technique.

(21) *90+2 min Gvardiol overhits a pass to Doku. City have been **very poor** in the final third; in fact Raya still hasn't had a save to make, though Rice – **the player of the match** IMO – did head off the line in the first few minutes.* (arsenal_man city_guar)

(22) 78'
*Чалханоглу **у класному підкаті** зупинив Ді Марію, який мчав до штрафного майданчика Інтера. Аргентинець залишився на газоні.* (inter_benefika_sport)

4. Informal and colloquial vocabulary.

In English-language text commentary, the phrase "(to) break a hoodoo" describes the team's attempts to outplay the opponents and break a "curse". The player managed to stop a negative tendency. In Ukrainian-language text commentary, "one-on-one" describes a situation when a player is in direct physical contact with another player or a goalkeeper.

(23) GOAL! Arsenal 1-0 Man City (Martinelli 87)
*Gabriel Martinelli **has broken the hoodoo!*** (arsenal_man city_guar)

*(24) Лаутаро вийшов **сам на сам** з Трубіним, обіграв його та пробив по воротах - захисник вибив м'яч. Але був офсайд.* (inter_benefika_sport)

At the syntactic level, elements of colloquial language manifest in the choice of sentence types. An author interacts with the readership by posing questions (interrogative sentences), reproduces moments of emotionally charged and symbolic atmospheric background (exclamatory sentences), and accompanies the reader (audience), satisfying the community's need to "find out more" (imperative mood).

5. Interrogative constructions

(25) 88 min *As per the below, this hasn't been a game of great quality, but are you not absorbed?* (arsenal_spurs_guar)

(26) 90'
Як ви гадаєте, скільки додав арбітр? (arsenal_tottenham_sport)

In both examples, an author interacts with the audience. At the core of the English-language question, there is an affirmative statement, at the end of which we observe the interrogative phrase "But are you…", addressed to the reader. The text commentary on the Ukrainian website includes an example of a complex interrogative sentence, in which an interrogative construction "How much do you think…" is also addressed to the reader. The author seeks an opinion and expects an assessment of the current situation on the football field.

6. Exclamatory sentences.

Exclamatory sentences as a means of representing tense moments of the game

(27) *17 min:* **What a let-off for Raya!** (arsenal_man city)

(28) *90'+2*
Момент!
*Вікаріо витягнув низовий удар Сака під праву штангу **метрів з 18!*** (arsenal_tottenham_sport)

English exclamatory sentences are constructed based on certain models of expressive syntax. In the example provided above, the structure includes the exclamation "What a/an…", which is a clear marker of an exclamatory sentence, adding a strong emotional tone. As for the Ukrainian-language commentary, the sentence (38) is complex, where an independent clause is "Vicario pulled off a low shot by Saka under the right post", and a subordinate clause is "from about 18 meters."

7. Imperatives.

As mentioned earlier, an author very frequently accompanies readers, attracts their attention, and calls for certain actions. For example, an author may say, "read this material", which characterizes it as an additional syntactic construction "expressed" by an author, beyond the main narrative presented in the text segments. We managed to find similar constructions in English-language text commentaries:

(29) *24 Sept 2023 17.07 CEST*
And really do not miss:
Solheim Cup 2023: Europe 14-14 USA, singles – as it happened
Read more (arsenal_spurs_guar)

The negative verb form "do not miss" is used to direct readers to other pages or other available resources. As for the Ukrainian-language text commentaries, the journalist-reporter doesn't use imperative constructions like "learn more about…", "check out this article to…", "subscribe to receive updates…", and "read this material to understand…".

For live text commentary, it is important to provide expressiveness to the text, format, and convey information, particularly through techniques such as repetitive or capitalized letters, with which the author imitates the "conversation" of emotionally charged content. The mentioned graphic elements of text formatting are observed in both English-language and Ukrainian-language commentaries:

(30) *Peep! peep! Peeeeeeeeep!* (wolves_spurs_guar)

(31)
ГГГГГГГГГООООООООООООООЛЛЛЛЛЛ! (chelsea_manchester city_sport)

Summarizing the analyzed material jargon, negatively coloured, emotional-evaluative, informal, and colloquial vocabulary are presented. As for syntactic verbal means, in both languages, an author uses interrogative constructions, exclamatory sentences and imperative mood. Oral communication is marked by a range of graphic elements of text formatting, particularly repetitive, or capitalized letters, which are verbal means to "imitate" the context of spoken language.

CONCLUSİONS

Football live text commentary is a relatively "new" type of genre, characteristic of football discourse. Since the events "unfold", the author aims to focus on the specific "moment", which is time-stamped. The live football text commentary sets somewhat different parameters of cooperation between an author and a reader. This was particularly observed on the web pages of The Guardian newspaper. The reader is a co-author of the text commentary, who can be quoted from his posts on Twitter, letters to the author, and other platforms, available for establishing contact. The content of the "event" and thematic structure have been identified in structural elements — text segments of live text commentary. Our analysis of the live text commentary focused on the "canonical" structure of the speech genre, which is characteristic of English-language material. We have determined that in the structural element of the text commentary called "Preamble", the author sets the tone, and establishes contact with the potential readers. In Ukrainian-language texts, this is a formal component, since there is factual material, and the author "informs" and "familiarizes". The communicative past in both languages concerns both the producer and the recipient, who can rely on the previous "viewing" of the football match. As for the communicative future, it is a journalistic analysis of the match course in English-language text commentaries, while it is a report of the match events in Ukrainian-language resources.

A comparison of linguistic realization means in English and Ukrainian languages indicates the use of football jargon, negative coloured, and emotionally charged vocabulary. In addition, we

observe the use of informal and colloquial vocabulary. Text segments of text commentaries combine the elements of both spoken and written language. The author of the English-language text commentary uses an affirmative statement, at the end of which we observe the interrogative phrase, addressed to the reader. The Ukrainian-language text commentaries include an interrogative construction that is also addressed to the reader. Exclamatory sentences as a means of representing tense moments of the game, used in both English-language and Ukrainian-language commentaries to convey emotions and tension.

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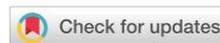
Rhetorical and virtual communication: innovative characteristics of future professionals' communication culture

Риторичне та віртуальне спілкування: інноваційні характеристики культури професійного спілкування майбутніх фахівців

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Abstract

The article clarifies the main characteristics of the culture of professional communication of future specialists and verifies the effectiveness of the implementation of the author's system of forming the culture of rhetorical and virtual communication of future specialists to enrich the professional experience of future specialists for professional activities. The content of research concepts is disclosed and the main aspects of the manifestation of the culture of professional communication of future specialists are highlighted, its main qualitative communicative characteristics, the most effective factors of professional communication of future specialists, and criteria of productivity of the style of professional communication of future specialists are proposed. The main aspects of the rhetoric of professional communication are emphasized.

Анотація

У статті з'ясовано основні характеристики культури професійного спілкування майбутніх фахівців та перевірено дієвість реалізації авторської системи формування культури риторичного та віртуального спілкування майбутніх фахівців з метою збагачення професійного досвіду майбутніх фахівців для фахової діяльності. Розкрито зміст понять дослідження та виокремлено основні аспекти вияву культури професійного спілкування майбутніх фахівців, її основні якісні комунікативні ознаки, найбільш дієві чинники професійного спілкування майбутніх фахівців та запропоновано критерії продуктивності стилю професійного спілкування майбутніх фахівців. Наголошено на основних аспектах риторики професійного спілкування. Показано вагомість віртуального професійного

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The importance of virtual professional communication of future female and male specialists with the active introduction of remote technologies into the system of modern education is shown. Exercises for the development of professional communication culture skills of future specialists are offered. The study confirmed the practicality of introducing the developed author's system of formation of the culture of rhetorical and virtual communication of future specialists into professional training.

Keywords: culture of professional communication, author's system of formation of culture of professional communication of future specialists, rhetorical and virtual communication, virtual professional communication, professional activity.

спілкування майбутніх фахівців жіночої та чоловічої статі при активному запровадженню дистанційних технологій до системи сучасної освіти. Запропоновано вправи для розвивитку навичок культури професійного спілкування майбутніх фахівців. Дослідження підтвердило доцільність впровадження у фахову підготовку розробленої авторської системи формування культури риторичного та віртуального спілкування майбутніх фахівців.

Ключові слова: культура професійного спілкування, авторська система формування культури професійного спілкування майбутніх фахівців, риторичне та віртуальне спілкування, віртуальне професійне спілкування, фахова діяльність.

Introduction

Moral and emotional well-being, the effectiveness of professional activity, the influence of the culture of professional communication on the intellectual and personal development of future specialists, satisfaction with one's activity and oneself, professional growth of a specialist depend on the peculiarities of pedagogical communication and human culture (Haluziak, 2019).

For the professional communication of future specialists, one of the main means of professional training of future specialists is of great importance – language, which contributes to the development and formation of a person's personality, will, intellect, and feelings; the language preserves the spiritual essence of the people, unites generations, forms the culture of the nation, provides a national worldview.

The culture of professional communication of future specialists in any branch of the national economy is a measure of a specialist's education. Official negligence and linguistic negligence border. Incorrect or inaccurate use of a sentence or word in the text of the document can lead to misunderstandings in business relations, distortion of the content of the document, etc. Errors in instructions or technical designs can cause production failures. An interesting technical idea, scientific opinion needs a perfect rhetorical culture and virtual communication, as innovative characteristics of the culture of professional communication of future specialists and the linguistic form of the individual. Presented in a reasoned and competent manner, they quickly gain the support of the scientific community and society. The lack of an oral

culture of professional communication with future specialists hurts his relations with customers, clients, partners, etc. All employees should master the basics of professional communication, and linguistic means, paying attention to the features characteristic of official business and scientific styles (Kuchai et al., 2018).

Literature review

The problem of the styles of professional communication of future specialists, the main characteristics of the culture of professional communication, which stood out in a special direction of research in connection with the importance of human social relations, were dealt with by scientists from different countries and devoted several works in which the psychological structure and features of different styles of professional communication are analyzed communication, the features of virtual communication are considered, the impact on the personal development of the individual is determined; empirical studies will be conducted; gender differences in personal characteristics of young people are determined (Solodovnyk et al., 2019). He devotes his research to the consideration of speech aspects in the rhetorical aspect, of the business communication of O. Muntian (2023), where professional communication plays an important role in education, business, and politics. Rhetoric is presented as the art of persuading and influencing others, the importance of rhetoric in business communication and aspects of its use in the modern world are considered, as well as the role of linguistic and rhetorical means in the

perception of the world by recipients is emphasized. The correct choice of grammatical structures, lexical units, metaphors, and rhetorical figures in the perception of information by the audience and the formation of beliefs is shown. Stylistics is given the main attention in business communication, in important written communications the importance of formal style is shown and the correspondence of tone and style with the context of communication is emphasized. V. Haluziak (2019) implements O. Muntian's thoughts into the practice of business communication, and pays attention to the use of clear language, structuring the message, and the need for audience analysis. The scientist considers various approaches to the effective style of pedagogical communication, defines its characteristics; distinguishes bipolar parameters: "sympathy – antipathy"; "dominance – dependence"; "closedness – openness"; finds that "in addition to grammar and vocabulary, the structure of speech plays a crucial role in conveying information and maintaining a position".

O. Kovalenko (2015) studies the interpersonal communication of the elderly and singles out the content of scientific approaches of a concrete-scientific methodological level (concepts of interpersonal communication, personality theories, systemic, existential theory, and integrative approach). The scientist considered the personal-communicative approach and substantiated its principles and content in the development of conceptual representations of the process of interpersonal communication of elderly individuals, which are considered a conscious activity, a subject of subject-subject communication that makes up a system of interconnected different mental processes, dynamic unity. The model of "interpersonal communication of the elderly" was developed the structure of the components of interpersonal communication of persons of this age (behavioral, emotional, cognitive), communication mechanisms (sympathy, empathy, mutual understanding, constructive methods of interaction, reflection, identification, decentration), factors (external, internal), functions (informational-communicative, affective-communicative, regulatory-communicative), regularities related to the conditions, driving forces, features of improving the communication process.

It is interesting to study domestic and foreign experiences regarding the specified problem by S. Trehub (2020). The significance of the formation of a professional culture of communication for future doctors has been investigated and proven. The importance of professional communication of future specialists for professions of the "Human–Human" type is proven, which requires its representative's tolerant, correct communication based on constructive dialogue, a high level of competence, professionalism, professional deontological culture, concentration, responsibility, based on moral and value guidelines and principles of humanism. An integral part of the professional formation of students of higher education, one of the aspects of development is the formation of a professional culture of communication, which is not limited to pedagogical influence on the individual but covers the significant ethical activity of the specialist in society.

The culture of language and professional communication of future specialists studies the approval and codification of norms at all language levels. Content and appropriateness of language, its accuracy, and logic, make human language exemplary, impeccable, and highly cultured. An important condition for success in professional growth is mastery of speech culture. Therefore, A. Starunova (2018) characterized the types and genres of speech: report and business report, anniversary speech, business speech, rally speech, and speech; highlighted the main aspects of the manifestation of culture in a professional speech specialist: adequacy, normativeness, field functionality, aesthetics; gave practical advice to improve the personal speech culture of the future specialist.

Naturally, the problem of professional communication styles of future specialists, the main characteristics of the culture of professional communication was highlighted in a special direction of research. Several works are dedicated to the study of the main characteristics of the professional growth of a specialist, the culture of professional communication, in which the psychological structure and features of various styles of professional communication are analyzed, the influence on the personal development of the individual is determined, and attempts at classification and systematization are made. Comparative studies of foreign experience regarding the specified problem are interesting. However, the basic characteristics of the culture of professional communication of future specialists, rhetorical and virtual communication, and innovative characteristics of the culture of professional communication of future specialists are not sufficiently substantiated.

The aim of the study. To find out the main characteristics of the culture of professional communication of future specialists and to check the effectiveness of the implementation of the author's system of formation of the culture of rhetorical and virtual communication of future specialists to enrich the professional experience of future specialists for professional activities.

Methodology

Achieving the goal and verifying the hypothesis formulated in the research (clarification of the main characteristics of the culture of professional communication of future specialists and verification of the effectiveness of the implementation of the author's system of forming the culture of rhetorical and virtual communication of future specialists will allow the enrichment of the professional experience of future specialists for their professional activities) was facilitated by the use of a set of methods: theoretical – content analysis of pedagogical, philosophical, psychological works, systematization, theoretical analysis, synthesis, concretization, extrapolation, typology – to reveal methodological foundations and theoretical-methodological ones with the aim of building a system of formation of a culture of rhetorical and virtual communication of future specialists, as well as interpretation of empirically obtained material; classification and comparative-pedagogical analysis of research – in order to clarify the essence of the categorical-conceptual field of research and scientific definitions; modeling and systematization – for the development of a system of formation of the culture of rhetorical and virtual communication of future specialists; selection of approaches, correction and design of theoretical and methodological positions, promising ideas that form the methodological and methodological basis of generalization, experimental data – for the development of educational and methodological support for the culture of professional communication of future specialists; empirical – pedagogical observation of the educational activities of higher education seekers, questionnaires, interviews, surveys, testing – with the aim of determining the state of readiness and formation of future specialists and establishing the positive dynamics of its formation; pedagogical experiment – to confirm the verification and efficiency, effectiveness of the developed system of formation of the culture of rhetorical and virtual communication of future specialists; with the calculation of the Fisher criterion (F-criterion), methods of mathematical statistics – for the presentation and processing of research results, testing and analysis of hypotheses, establishing quantitative dependencies between the investigated processes in order to identify and organize the most important signs of professional readiness of professional communication of future specialists as a basis for a professional construct by an expert evaluation of the received data.

Research organization. The research was conducted in three stages.

The organizational and prognostic stage, which involved the analysis of scientific research and approaches to the formation of the culture of professional communication of future specialists, allowed finding out the achievements in the theory and practice of higher education; to define a conceptual apparatus based on a systematic analysis of psychological, pedagogical, philosophical literature on the problems of forming a culture of rhetorical and virtual professional communication of future specialists; definition of tasks, research tools (criteria, levels, indicators) for assessing the readiness of specialists; functions of education and methodological foundations of professional communication of future specialists; contributed to the development of the methodology of both theoretical and experimental research, specifying the purpose of the research.

The content-procedural stage involved the accumulation of empirical material on the formation of the culture of rhetorical and virtual communication of future specialists (confirmatory experiment); the definition of conceptual and methodological foundations for the research problem; development of a system for the formation of a culture of professional communication of future specialists; clarification of the chosen methods and hypothesis research; preparation and conduct of the formative stage of the experiment, which allowed to check the effectiveness of the system of formation of the culture of rhetorical and virtual communication of future specialists.

The analytical and corrective stages involved systematization, analysis, processing of the results obtained during the experiment, qualitative interpretation of the experimental data, statistical processing, and registration of the obtained results.

Results and discussion

1. The content of research concepts

Language and culture are on the same conceptual plane and spiritual values are organically connected. The word culture, which means education, care, and development, means a set of spiritual and material values that mankind has created throughout its history. Language is a manifestation of culture. "Language keeps in one spiritual field of national culture all representatives of a certain nation both on its territory and beyond its borders. It cements all cultural phenomena, is their concentrated manifestation" (Mukan et al., 2020). We preserve the national culture, nurturing the language, protecting its identity, and taking care of its development.

The culture of professional communication of future specialists involves compliance with word usage, emphasis, linguistic norms of pronunciation, construction of sentences, clarity, accuracy, purity, appropriateness and richness of speech, logical coherence, and compliance with the rules of speech etiquette (Fahnestock, 2020). The culture of professional communication of future specialists is "a complex socio-psychological phenomenon, which is one of the conditions for the formation and development of personality, effective interaction between people in all spheres of life, related to feelings, emotions, experiences, thoughts" (Solodovnyk et al., 2019).

The main aspects of the manifestation of the culture of professional communication of future specialists and its main qualitative communicative features.

The following main aspects of the manifestation of the culture of professional communication of future specialists are highlighted:

− adequacy (intelligibility and clarity of speech, accuracy of statements);
− normativity (compliance with the rules of written and oral communication);
− polyfunctionality (ensuring language use in various spheres of life).
− aesthetics (use of language (expressive and stylistic), which makes speech rich and expressive) (Kuchai et al., 2018).

The high culture of professional communication of future specialists in various fields means speaking skills and a perfect command of the language in the process of communication (Molek-Kozakowska, 2020).

The main qualitative communicative features of the culture of professional communication of future specialists are accuracy, correctness, expressiveness, logic, appropriateness, meaningfulness, purity of speech, and richness of language (Schneller, 2021).

Accuracy is associated with the meaning of the word, clarity of thinking, with knowledge of the subject of speech. The ability to express thoughts and form them adequately is determined by knowledge of the language, a constant desire to learn about the real world, and knowledge of objective reality. If the words used fully correspond to their lexical meanings established in this period of language development, then the culture of professional communication of future specialists will be accurate. Accuracy is achieved not only at the lexical-semantic level, it is closely related to the syntactic, and grammatical levels; depends on the knowledge of one's profession, the speaker's intellectual level, wealth and erudition, his active vocabulary, the laws of his linguistic expression, mastery of the logic of thought.

Correctness is a defining feature of the culture of professional communication of future specialists. Language has its own laws of development, which are clearly reflected in language norms. To be fluent in the language and culture of professional communication means to learn exactly such literary norms that operate in the language system of professional communication of future specialists. These include the rules of stressing words, the correct pronunciation of sound complexes, sounds, writing by punctuation and spelling norms, and stylistic, grammatical, and lexico-phraseological normativity (Biočina & Rajh, 2021).

Expressiveness is a means of self-expression, the ability to use expressive means of sound speech: emotional tonality, voice inflections, logical emphasis, pauses, which conveys an assessment, mood, causes the necessary perception; is the basis of mastery of the word, means the art of using the expressive means of language, its inexhaustible resources and is an integral part of speech culture. The expressiveness of the culture of professional communication of future specialists is ensured by the expressiveness and clarity of pronunciation and diction. Technical factors of expressiveness in professional communication of future specialists – breathing, facial expressions, pace, intonation, gesture.

Logic is a feature of every functional style, a universal concept that strictly adheres to the logic of presentation, which allows tracing the process of searching for the truth, the course of the speaker's cognitive activity. Compliance with this sign of professional communication of future specialists means intelligent, consistent, logically correct speech, which is based on knowledge of objective real reality and complies with the laws of logic. Good knowledge of the language and correct, constructive thoughts generate logically correct professional communication with future specialists.

The appropriateness of professional communication of future specialists takes into account communicative tasks, the speech situation, the composition of the listeners, their mood, condition, and interests; the selection of language means that corresponds to the expression, content, purpose of the message, and character.

The content of professional communication of future specialists requires a detailed familiarization with the topic, with versatile information, a deep understanding of the main idea, statement, and topic, the ability to select and subordinate the necessary material to the chosen topic, as well as to fully contribute to the disclosure of the topic.

Purity. The culture of professional communication of future specialists will be pure when the language sounds correct, there will be correct grammatical forms, and only literary and normative phrases and words will be used.

Wealth is a large amount of active vocabulary, an indicator of the richness of the culture of professional communication of future specialists, a variety of syntactic constructions, and morphological forms used. A well-educated person uses 6-9 thousand words, and an ordinary person uses about 3 thousand words, although he understands ten times more.

Other signs can be added to the characterized communicative signs, which testify to the impeccable and exemplary professional communication of future specialists, the high level of their culture, the ability to use the gift of words to the fullest: emotionality, variety, non-standard, brevity, sufficiency, clarity, inner truth, sincerity, weight, etc. (Starunova, 2018).

2. Factors of professional communication of future specialists

Any communication includes a communicative message and the emotional-sensual sphere of the individual: anger, joy, enthusiasm, and surprise at once. There must be an attitude towards the interlocutor in the communicative act to which it is addressed. Even in professional and business communications, it is almost impossible to completely exclude the emotional reactions of interlocutors (Solodovnyk et al., 2019).

Factors of professional communication of future specialists that determine the structure of the components of such communication can be:

– external to the subject of interpersonal communication;
– internal, determined by individual and individual characteristics for the individual.

External factors of professional communication of future specialists are related to environmental relations, conditions, and properties that provide them with certain opportunities for professional communication.

Let's single out the environment in which the external factors of professional communication of future specialists are revealed:

– natural (conditions that are natural in which a person is);
– anthropogenic (natural environment that is intentionally or unintentionally, directly or indirectly changed by people);
– social (characterized by various conditions – scientific, cultural, socio-psychological, socio-economic, ethnic, informational, spiritual, etc.).

The internal factors of the professional communication of future specialists are the subjective conditions of interpersonal communication that are manifested in the properties and attributes of the subjects of communication:

– social (a person's social status, social activity, living conditions, professional employment, interests and hobbies, etc.);
– biological (gender, racial affiliation of a person, state of health, body structure, individual features of a morphological nature, properties of the nervous system, etc.);
– psychological (manifestations of the regulatory, cognitive, and communicative

levels of the human psyche) (Kovalenko, 2015).

3. The main performance criteria of the style of professional communication of future specialists

The effectiveness of communication depends on the conditions under which the pedagogical interaction takes place and on its characteristics. In particular, the effectiveness of professional communication significantly depends on the individual and age characteristics of a person, the level of team development, the personal attributes of a person, through which the stylistic features of communication of persons, and their educational influences are perceived and refracted. There is no universal prescribed style of professional communication in all conditions. Let's name the general bipolar dimensions that reflect the fundamental aspects of professional communication of future specialists and determine the productivity of human interaction:

- "dominance, activity – dependence, passivity";
- "formality, closedness – individuality, openness";
- "sympathy, benevolence – antipathy, criticality."

Let's name the main performance criteria of the professional communication style of future specialists:

1) the activity of partners' positions, their nature (in unproductive – above the partner: active position of the leading partner; in productive – next to the partner: active position of co-participants in the activities of both partners);
2) setting goals, and their nature (in unproductive – only close goals are put forward by the dominant partner without discussing them with the partner; in productive – partners jointly develop distant and close goals);
3) the nature of responsibility (in unproductive – the dominant partner assumes all responsibility; in productive – all participants of the interaction are responsible for the results of the activity);
4) the nature of the relationship between partners (in unproductive – resentment, aggression, irritation; in productive – trust and benevolence);
5) the mechanism of identification, the nature of its functioning – isolation (in the unproductive – alienation and extreme forms of identification; in the productive style – identification and isolation).

In the educational context of the individual, the most expedient is the style of professional communication, in which the demandingness of the manager, which ensures the structure of the environment, determination is combined with benevolence, acceptance of higher education seekers, personal orientation, personalization of interpersonal contacts of each person. For a successful educational process and a full-fledged personal development of a person, from the point of view of ensuring favorable conditions, the most effective style of professional communication that provides for the equality of the psychological positions of the teacher and students of higher education, corresponds to the dialogic and subject-subject strategy of social interaction, readiness to take the partner's point of view, mutual activity, congruence and openness. Building the educational process on the principles of dialogue, as an equal, psychological, pedagogical cooperation between a teacher and a student of higher education, is a necessary condition for the implementation of a personal approach in the development of creative potential and education of students (Haluziak, 2019).

In the educational process of a higher school, there is interaction between teachers and students, which involves the exchange of information. When future specialists communicate, information is presented to students of higher education through the words of the teacher, and its perception is carried out in the process of explanation, conversation, lecture, story, etc. The effectiveness of higher education students' perception of the necessary material for the future professional activity of each person depends on the brightness, accuracy, color, and emotionality of the teacher's words, gestures, and facial expressions. A very important role in the formation of the culture of professional communication of future specialists is played by competent pedagogical communication in educational situations with students of higher education as a teacher, the tact of the teacher, an effective method of influence, the ability to choose pedagogically appropriate material, a sense of proportion, the ability to quickly find the optimal solution to various problems in the learning process, assess a specific situation (Trehub, 2020).

4. Basic aspects of the rhetoric of professional communication

In addition to vocabulary and grammar, the structure of professional communication is of great importance for a person. It is important to build consistent and logical arguments that support the respective positions of the interlocutors. using the introduction, conclusion and development of the topic should follow a clear structure of the text or speech. This helps a person to perceive information more easily (Salvatierra, 2022).

The main aspects of the rhetoric of professional communication of future specialists include:

Audience analysis: understanding the expectations, needs, and attitudes of the audience is an important stage in influencing the process of the culture of professional communication of future specialists. A business speaker must clearly tailor his message to the person he is addressing.

Argument building: strong and convincing arguments must be developed by the speaker to support his position or idea. This includes the use of statistics, facts, emotional appeals, and examples.

Structuring the message: organizing one's thoughts in a logical sequence is an important next aspect of the culture of professional communication of future specialists when a business message includes the main part with arguments, an introduction, and a conclusion.

Use of language: language should be clear concise and appropriate for the audience. It is important to avoid excessive technicality and complex terms if the audience is not knowledgeable in this direction.

Visual Communication: Visual elements such as graphs, presentations, charts, etc. play an important role in professional communication, not just verbal language.

Communication with the audience: interaction with the audience, attention and the ability to listen, and responding to questions and comments of interlocutors helps to strengthen mutual understanding and maintain an active dialogue.

5. Exercises for the development of professional communication culture skills of future specialists

Business rhetorical professional communication of future specialists is an important skill of the culture of professional communication of future specialists for their effective interpersonal relations and successful careers. To develop skills, it is worth performing various exercises that can help in this (Kuchai et al., 2021).

1. Exercises to prepare for performances:

− apply exercises to develop future professionals' public speaking skills, including contact with the audience, gestures, and expressiveness;
− create a structure (introduction, main part, conclusion) of the speech and prepare topics for the speech.

1. Voice control and pronunciation exercises:

− learn to correctly emphasize phrases and highlight words to increase the effectiveness of the text;
− to practice exercises for the expansion of voice volume and vocal range for the culture of professional communication of future specialists;
− use dictionaries with correct pronunciation, and learn to pronounce phrases and words correctly.

2. Exercises for active listening:

− learn to listen carefully to others and respond to their ideas and thoughts;
− to better understand the interlocutor, practice questioning exercises.

3. Exercises on persuasion and argumentation

− practice persuasion exercises through evidence and arguments of other people from their point of view;
− practice analysis of counterarguments and arguments on various topics.

4. Improvisation exercises:

− improve response skills and perform improvisational roles in unexpected situations;
− practice improvisational responses to various situations or questions.

5. Exercises to improve non-verbal communication:

– learn to understand and read the tone of voice, gestures, and facial expressions of other people;
– practice your own gestures and facial expressions to emphasize the meaning of words.

6. Exercises to increase vocabulary:

– learn expressions and new words;
– to make speech richer and more diverse, it is worth using words from different fields of knowledge.

7. Stress management exercises:

– before important conversations or speeches, study relaxation techniques;
– before speeches or important conversations, learn stress reduction techniques.

These exercises can help to become a more effective communicator in various spheres of life and profession, to develop business rhetorical communication. To achieve noticeable results, it is important to practice them regularly (Muntian, 2023).

6. Virtual professional communication of future female and male specialists with the active introduction of distance technologies to the system of modern education

The problem of replacing live communication with virtual communication, especially among students of higher education, deserves special attention in our research. The availability of the Internet, innovative devices (gadgets), and information technologies allow almost unlimited communication with anyone at any time. A large number of potential interlocutors creates an idea of a wide circle of friends, acquaintances, colleagues, and subordinates of different social statuses, ages, professions, and genders. A person feels that virtual communication replaces the real one and that he is part of the community. In connection with the active introduction of distance technologies into the system of modern education, the problems of virtual communication, as well as the transition of various types of directions and communications to the virtual world, are gaining special relevance (González-Afonso et al., 2023).

Virtual communication has many common features with real one, but there are also many

differences: first of all, this communication is mediated by an innovative device or computer when the interaction takes place in virtual reality. Then a person, without the presence of a communication partner, has the opportunity to communicate and carry out communication with what the interlocutor imagines and presents, and not with a real person, that is, the personalities they pretend to interact with, and not real personalities (García Arias et al., 2021).

It has been studied that in virtual communication, communication between men and women has enough differences (Solodovnyk et al., 2019). This is due to such factors as gender stereotypes, sociocultural models, psychophysiological features, and social roles.

Female communication in the virtual world is characterized by imagery, empathy, emotionality, and saturation with epithets. Men's messages are more informative and specific and can demonstrate certain emotional states (aggressiveness, etc.). Significant differences are confirmed by the study of gender psychology in the characteristics of female and male communications (Bernal-Turnes et al., 2023). In communication, women are aimed at establishing mutual understanding, receiving feedback from the interlocutor, and paying more attention to facial expressions and appearance, while solving specific cases inherent in male communication. There are social views on female and male behavior, traditional gender roles, and which types of activities are more suitable for women and which for men ("feminine" and "masculine" professions), which result in peculiarities in communication (Cañizares Galarza et al., 2021).

Communication with people who have a status higher than their own or with people in their circle is characteristic of men. Women are more attracted to intimacy in communication, and the ability to trust both interlocutors of their sex and those of the opposite sex. There are also linguistic and stylistic differences in the communication between women and men. L. Korneva believes that "these differences concern, first of all, communicative behavior in general and are manifested in typical strategies and tactics of conducting a conversation, the choice of communication topics and ways of achieving success in it, the degree of confidence, politeness, and cooperativeness of speech, etc. Secondly, differences are observed at all levels of language: phonological, lexical, and grammatical (Kornieva, 2013).

Different styles of communication are caused not only by differences in the psyche and physiology of women and men but also by gender stereotypes that have developed in modern society: the manner of presenting messages, communicative behavior, aggressiveness, persistence, compassion, emotionality, or restraint. Such human behavior in professional communication is determined by various social factors, not only gender differences. These are status relations, professional and sociocultural environment, peculiarities of upbringing, family relationships, etc. (Solodovnyk et al., 2019).

7.   Experimental study

For the qualitative organization of experimental research – ascertaining and formative stages – on the formation of the culture of professional communication of future specialists, based on the level gradation, a diagnostic toolkit was selected, and a scale covering high, medium, sufficient, and low levels were distinguished.

In the first stage of the formation of the culture of professional communication of future specialists, the experimental groups did not differ in any way from the control group.

In the second stage, the formation of the culture of professional communication of future specialists took place in accordance (partially) with the author's conceptual idea.

The number of respondents in each sample was almost the same – 98 in EG and 92 in CG. A total of 190 respondents took part in the study.

To check the effectiveness of the formation of the culture of professional communication of future specialists, the formative stage of the study was organized. No additional actions were taken by the CG.

The author's system of formation of the culture of rhetorical and virtual communication of future specialists was implemented in EG, which was based on the purposeful implementation of:

–   the main aspects of the manifestation of the culture of professional communication of future specialists;
–   basic qualitative communicative features (accuracy, correctness, expressiveness, logic, appropriateness, meaningfulness, purity of speech, richness of language, emotionality, variety, non-standard, brevity, sufficiency, clarity, inner truth, sincerity, weight, etc.)

–   factors of professional communication of future specialists;
–   the main productivity criteria of the style of professional communication of future specialists;
–   general bipolar dimensions that reflect the fundamental aspects of professional communication of future specialists and determine the productivity of human interaction;
–   main aspects of the rhetoric of professional communication;
–   virtual professional communication of future female and male specialists with the active introduction of distance technologies to the system of modern education;
–   development and practical application of exercises for the development of professional communication culture skills of future specialists.

The implementation of the developed educational and methodological support for educational and independent work, the organization of pedagogical and classroom practice based on innovative methods and technologies, and methods and means of organizing the formation of a culture of professional communication of future specialists were taken into account.

At the end of the experimental study of the formation of the culture of professional communication of future specialists, only minor positive changes in CG and positive significant dynamics in EG were obtained. Thus, the vast majority of EG respondents had a high (14.34%), average (48.93%), and sufficient (34.49%) level of formation of the culture of professional communication of future specialists.

Qualitative changes as a result of the study were established based on the comparison of variances for determining the F-criterion. The reliability of the obtained results was proven using the methods of mathematical statistics.

During the calculations, it was established that the numerical value of the F-criterion in the CG, which proves statistical reliability, does not fall within the established limit (from 1.3 to 1.7) (1.0383 – procedural-activity indicator; 1.0393 – motivational-axiological indicator; 1.0234 – reflective-creative indicator; 1.0708 – outlook-cognitive indicator).

The results obtained in CG are not mathematically significant and confirm the fact

that future specialists in the specified area cannot independently achieve significant results.

The indicators of the formation of the components confirm that the indicators of EG and CG at the end and the beginning of the experiment were different: procedural-activity (EG – 19.97±0.33, CG – 19.53±0.37); motivational-axiological (EG – 16.40±0.38, CG – 14.25±0.48); reflective-creative (EG – 12.20±0.17, CG – 13.3±0.22); outlook-cognitive (EG – 11.03±0.22, CG – 7.78±0.23).

In EG, the results were also radically opposite: the F-criterion is within the limits of the table value (1.3629 – procedural-activity; 1.3033 – motivational-axiological; 1.4003 – reflective-creative; 1.3125 – outlook-cognitive).

The implementation of the author's system of formation of the culture of rhetorical and virtual communication of future specialists made it possible to enrich the professional experience of future specialists for professional activities.

Negative stereotypes of future EG specialists in the professional context were destroyed, and the horizons of professional activity were significantly expanded. In particular, this concerned the main aspects of the manifestation of the culture of professional communication of future specialists; basic qualitative communicative features (accuracy, correctness, expressiveness, logic, appropriateness, meaningfulness, purity of speech, richness of language, emotionality, variety, non-standardity, brevity, sufficiency, clarity, inner truth, sincerity, weightiness, etc.); factors of professional communication of future specialists; the main performance criteria of the style of professional communication of future specialists; general bipolar dimensions that reflect the fundamental aspects of professional communication of future specialists and determine the productivity of human interaction; the main aspects of the rhetoric of professional communication; virtual professional communication of future female and male specialists with the active introduction of distance technologies to the system of modern education.

For personal improvement, future specialists received help in realizing their belonging to a specific ethnic group, expanded intercultural competence, and the culture of professional communication, and increased the level of reflection, sociability, and empathy. As the analysis of the results of the experiment showed, at the end of the study there were positive significant changes in the levels of readiness to form a culture of professional communication among EG respondents compared to CG respondents.

The study confirmed the practicality of introducing the developed author's system of formation of the culture of rhetorical and virtual communication of future specialists into professional training. The analysis of the results of the experiment suggests that the task of implementing and researching the system of formation of the culture of rhetorical and virtual communication of future specialists has been fulfilled, and the goal has been achieved.

Conclusions

The main characteristics of the culture of professional communication of future specialists were clarified and the effectiveness of the implementation of the author's system of formation of the culture of rhetorical and virtual communication of future specialists was verified to enrich the professional experience of future specialists for professional activities.

The content of research concepts is disclosed and the main aspects of the manifestation of the culture of professional communication of future specialists and its main qualitative communicative characteristics are highlighted. The main qualitative communicative features of the culture of professional communication of future specialists are accuracy, correctness, expressiveness, logic, appropriateness, meaningfulness, purity of speech, and richness of language. Other signs can be added to the characterized communicative signs, which testify to the impeccable and exemplary professional communication of future specialists, the high level of their culture, the ability to use the gift of words to the fullest: emotionality, variety, non-standard, brevity, sufficiency, clarity, inner truth, sincerity, weight, etc.

The most effective factors of professional communication of future specialists are singled out and criteria of productivity of professional communication style of future specialists are proposed.

The main aspects of the rhetoric of professional communication are emphasized.
The importance of virtual professional communication of future female and male specialists with the active introduction of

distance technologies to the system of modern education is shown.

Exercises for the development of professional communication culture skills of future specialists are offered.

The author's system of formation of the culture of rhetorical and virtual communication of future specialists has been developed. The study confirmed the practicality of introducing the developed author's system of formation of the culture of rhetorical and virtual communication of future specialists into professional training. The analysis of the results of the experiment suggests that the task of implementing and researching the system of formation of the culture of rhetorical and virtual communication of future specialists has been fulfilled, and the goal has been achieved. Further research will be aimed at highlighting the main aspects of the manifestation of the culture of professional communication of future specialists.

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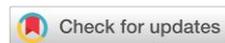
A holistic approach to addressing the global environmental challenge: the scientific-philosophical methodology

Цілісний підхід до вирішення глобальної екологічної проблеми: єдність науково-філософської методології

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Abstract

The search for a constructive strategy to overcome socio-economic and environmental imbalances in technogenic civilization is of great importance in modern science and philosophy. The article aims to discuss the scientific and philosophical potential of the holistic approach as a specific methodology and worldview. To achieve this goal, the authors clarify the understanding of the term "ecology" as an interdisciplinary field encompassing both natural and social aspects, which is the key to the modern analysis of environmental problems and the search for their solutions. The study of the doctrines of "new humanism", "world balance for mankind", and "new enlightenment", which were presented in the reports to the Club of Rome, allows one to find out the ethical and metaphysical foundations of the new paradigm of holism, its prognostic potential.

Keywords: global problems, Club of Rome, holism, "new humanism", alienation.

Анотація

Пошук конструктивної стратегії подолання соціально-економічних та екологічних дисбалансів техногенної цивілізації має велике значення в сучасній науці та філософії. Метою статті є обговорення науково-філософського потенціалу холістичного підходу як специфічної методології та світогляду. Для досягнення цієї мети автори уточнюють розуміння терміну "екологія" як міждисциплінарної галузі, що охоплює як природні, так і соціальні аспекти, що є ключем до сучасного аналізу екологічних проблем та пошуку шляхів їх вирішення. Дослідження доктрин "нового гуманізму", "світової рівноваги для людства", "нового просвітництва", які були представлені у доповідях Римському клубу, дозволяє з'ясувати етичні та метафізичні засади нової парадигми холізму, її прогностичний потенціал.

Ключові слова: глобальні проблеми, Римський клуб, холізм, "новий гуманізм", відчуження.

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Introduction

In the preface to the anniversary report to the Club of Rome "Come On! ...", its researchers excitedly diagnosed that, despite the precautions taken by the international community, the world is once again in a critical situation (Weizsäcker & Wijkman, 2018, p. 1). The uniqueness of this crisis lies in its progressive nature. Moreover, it affects not just one particular aspect of the world system but it is all-pervasive. The researchers of the report have identified disarray in various areas, namely in the natural environment (pathogenic changes in water, biosphere, atmosphere, and ecosphere). They also perceive the crisis in the Western social framework, highlighting the crisis of democratic institutions, ideology, morality, economics, and social sphere (Weizsäcker & Wijkman, 2018, p. 2). The alarmist predictions that we often hear these days have lost their sensationalism and social acuity since everyday life has long been in a state of turbulent and "molecular" social upheaval and conflict. However, when policymakers make statements about the crisis, it can produce a disheartening impact and bring a bleak tone to the mass consciousness. This mutual influence is theoretically grounded in the philosophical principle of the identity of thinking and being. Crises and deformations of social time turn into crisis tendencies of social consciousness, and vice versa, deformations and regressions of social consciousness lead to a "sick society" (Fromm). The fear and confusion of the global elites about the future, and their talk of an impending "abyss", is not just a tool for manipulation. It is a real indicator of their loss of strategic forecasting and control over global development. It is appropriate to recall postmodern critics who revealed the deceptiveness of rationalism's "metanarratives" and the failure of its "Great Promises" of progress, truth, and happiness. However, moving away from logocentrism and universalism leads to a situation of universal uncertainty and unpredictability. Empirical positivist vision, having rejected metanarratives, cannot deal with this situation effectively. Therefore, it is essential to comprehend and implement a new rationalist worldview to address the critical question: What can guide one in addressing the global crisis of the planet and humanity's evolution?

Literature review

Numerous scientific works and publications of modern researchers are devoted to the process of finding a constructive strategy for overcoming the socio-economic and ecological imbalance of man-made civilization.

In particular, G. Hegel (2001), T. Shorina (2021b) explore the philosophical component of the potential of the holistic approach, representing the latter as a specific worldview concept. Instead, M. Hinner (2017), A. Linde (2002) focused on the study of the scientific component, clarifying the definition of ecology as a science. In continuation, V. Vernadskyi (2012) positions ecology as an innovative interdisciplinary field that synergizes natural and anthropogenic-social aspects of life. Some scientists (Oztruk et al., 2010) see it as a basic strategy for the modern analysis of environmental problems and the search for practical variations of ways to solve them.

Scientific publications by A. Peccei (1977), D. Meadows, J. Randers, W. Behrens (1972) are devoted to the study of the doctrines of "new humanism", "world balance for humanity", "new enlightenment", which were presented in the reports of the Club of Rome). The results of the scientific research of the cited scientists allow us to highlight and specify the ethical and metaphysical foundations of the new paradigm of holism, focusing on its prognostic potential.

Methodology

Throughout its activity, the Club of Rome has attracted the attention of leading scientists, politicians, and public officials through the concrete scientific elaboration of the problems of global world development and philosophical reflections on human behavior in the world. Since their first report in 1972, "Limits to Growth", the Club of Rome has recognized the inseparable connection between scientific research methods and philosophical assumptions and conclusions. This connection, first of all, was found in the choice and justification of the doctrine and strategy of studying world dynamics. In the Limits to Growth report, the choice was made in favor of a holistic view of the world. As postulated by the authors of the report, their epistemology was based on the principle that it is "through knowledge of wholes that we gain an understanding of components, and not vice versa" (Meadows et al., 1972, p. 186).

Therefore, it's not only technical and scientific solutions that are critical for global analysis, but also for understanding social processes and complex dependencies in human behavior in

general. The behavior of people, which is conditioned by economic, political, social, and thought determinants, shapes the context and forms of people's relations to each other and nature. Global environmental problems, such as the negative effects of industrial development and material wealth, testify to the negative anthropogenic interference in natural systems, which neglects the sustainable flow of nature.

They also speak to the specificity of human social practice, whose philosophy is exponential and anarchic material growth, profit-seeking, and wastefulness.

The proponents of holism view the world as an interconnected and interdependent network of systems that must follow sustainable patterns of conduct (Figure 1).

Figure 1. The holistic view of sustainability.
Source: (Oztruk et al., 2010)

This approach helps them establish criteria for determining what is acceptable, unacceptable, and tolerable. By doing so, they can identify our role in society in a forward-looking manner. The Club of Rome figures rely on the integrity of scientific and philosophical methodology to consistently criticize the negative tendencies of Western civilization. They advocate for paradigm and system shifts that can help society emerge from our current crises. The goal is to promote a new way of being human within a more resilient biosphere (Club of Rome, (n.d.)). Holistic approach is interdisciplinary in nature and is considered a modern methodology for socio-humanities and environmental sciences. As an epistemological approach, holism serves not only as a principle of critical analysis of social reality but also as a principle of scientific foresight.

The study aims to discuss the scientific and philosophical potential of a holistic approach as a methodology and worldview to solve ecological global challenges.

To achieve the aim of the study, the following research tasks are identified:

– clarifying the understanding of the term "ecology" and its current subject matter;
– clarifying the position of the ecology problem in modern humanitarian and social knowledge;
– indicating the connection between scientific rationalism and the philosophy of holism, supported by reports to the Club of Rome, such as "Limits to Growth" (Meadows et al., 1972) and "Come On! Capitalism, Short-termism, Population and Destruction of the Planet" (Weizsäcker, & Wijkman 2018);

– investigating the axiology and ethics of holism as a new social paradigm of development, using examples such as the doctrine of "new humanism" (Peccei), the strategy of "world equilibrium for mankind" (Meadows), and "new enlightenment" (Weizsäcker, & Wijkman, 2018);

– highlighting the problem of alienation of human activity and the social naivety of the rationalism of naturalistic thinking.

Results and discussion

The problem of the environment is a significant issue for humanity. Its global nature implies the unification of the efforts of the international community. This problem requires not only scientific and natural knowledge but also technical and humanitarian knowledge. Philosophy plays a vital role in this matter.

Philosophy studies issues related to the general foundations of existence, the essential characteristics of humans, and their interaction with society and the world around them. Methodologically, philosophical reflection makes it possible to consider a particular problem in its entirety, analyze the interaction of various elements, and study the relationship of the object of study with other phenomena. Moreover, the nineteenth-century positivists emphasized the integrative role of philosophy, i.e., the ability of philosophy to generalize the data of various sciences, thus obtaining new knowledge.

The problem of ecology has always been in the focus of philosophy as it deals with the relations of man to nature. First of all, classical philosophy, which from ancient times and almost until the nineteenth century developed in close connection with natural science, recognized this problem. Since about the 1960s, the imperative of "greening" human knowledge and practice has become a general program not only of the scientific worldview but also of the philosophy that has not lost interest in the problems of ontology as a philosophy of nature and its modern variant, the philosophy of space. Due to the increasing need to combine knowledge in order to solve global environmental issues, the term "ecology" has become very broad and commonly used today. It has gone beyond its original use within the scientific community and is sometimes used in a less strict sense. This is because of the relevance of environmental problems to society as a whole.

The word "ecology" is now ubiquitous in the names of governmental or non-governmental institutions, public projects, goods, products, services, and educational projects. For example, people talk about ecological festivals, eco-design, eco-style, ecology of language, media ecology, ecology of public space, and ecology of the urban environment.

The term "ecology" comes from two Greek words, "oikos" meaning house or dwelling, and "logos" meaning science or knowledge. Therefore, ecology means "the science of habitat". A naturalist researcher of flora and fauna is always an ecologist as well because studying an organism apart from its habitat is impossible.

The term "ecology" was coined by Professor E. Haeckel of the University of Jena in 1866. Ecology was initially viewed as a branch of biology that studied the interactions between living organisms, based on the condition of their environment. However, this perception changed with the realization of the consequences of the Industrial Revolution, which became increasingly apparent in the twentieth century. The use of hydrocarbon fuels such as coal, oil, shale, and gas, as well as the extraction of large quantities of metals and other minerals, has resulted in the inclusion of substances stored in former biospheres into the natural cycle. These substances, which were once locked in sedimentary rocks and have already left the cycle, are now being found in the biosphere, leading to pollution of water, air, and soil. This pollution is rapidly increasing in intensity.

Since the 1960s, environmental issues have been a topic of major policy discussions and international agreements. In 1964, an international biological program was launched under the United Nations, to evaluate the biological productivity of the planet Earth. Numerous scientific teams joined the program, and established field research stations, many of which still exist today. In 1972, the General Conference of UNESCO adopted the Convention Concerning the Protection of the World Cultural and Natural Heritage (Unesco, 1972), and the United Nations Environment Programme (UNEP) was founded. In 1985, the Vienna Convention for the Protection of the Ozone Layer (European Union, 1985) was adopted and joined by 197 countries. In 1992, the Convention on Biological Diversity (United Nations, 1992) was adopted, and many countries committed themselves to preserve biodiversity on their territory. In 1997, the Kyoto Protocol (United nations climate change, (s.f)) was adopted as the first major agreement to limit greenhouse gas

emissions. Thus, at the end of the twentieth century, environmental issues became widely discussed in society, and humanity began to take an active interest in them. These issues include preserving biodiversity, maintaining the sustainability of ecosystems and the biosphere as a whole, environmental protection, and nature conservation. Although they are practical issues, their solutions are related to the knowledge that ecology as a science has accumulated.

From this global theoretical and practical overview, classical ecology or ecology as a biological discipline is only a natural part of modern ecology. The modern understanding of ecology provides a generalized understanding of the interaction between man and nature, society and nature, the biosphere and the technosphere, nature, culture and civilization in general, and therefore its subject matter goes beyond the scope of biological science (Shorina, 2021a, p. 78).

Hence, it can be summarized that modern ecology is the science of possible human behaviour that would allow the passing of Nature, the common human habitat, or biosphere, to the next generations to ensure humanity's survival on planet Earth. Since planet Earth is the only home of humans and everything in it is interconnected, we need to be able to combine the knowledge accumulated in different disciplines into a single coherent construct. As Michael B. Hinner writes about this, "the social ecological perspective provides a deeper and richer understanding of intercultural communication contexts" (Hinner, 2017), the same idea about the unity of environmental knowledge and cultural context is proved by Juan Carlos Miguel de Bustos: "this world is interrelated with human being" (de Bustos, 2009, p. 54). The science of how humans should live on Earth is naturally called human ecology, or simply ecology. In fact, this understanding forms the full content of modern ecology.

Ecology is a broad field that encompasses not only the study of nature and the environment but also the accumulated knowledge and current issues of philosophical research. In the twentieth century, several philosophical movements emerged that based their ideologies on scientific achievements and gave credit to science. These include the philosophy of positivism, modern analytical philosophy, the philosophy of Marxism, and the natural science direction of cosmism.

In modern times, a holistic view of matter (nature) in its interaction with humans, of the place and role of humans as active subjects of transformative activity and cognition in nature and cosmogenesis in general has been developed. This idea has been developed by physicists, biologists, and philosophers who have formulated the concept of global evolution and the hypothesis of the anthropic principle.

The convergence of ecological and philosophical knowledge in cognitive and humanistic determinations has led to the development of a new direction in philosophy called eco-philosophy or the philosophy of ecology since the 1970s. As stated in the encyclopedia, the philosophy of ecology is a branch of philosophical research that focuses on how environmental problems affect the methodology of modern scientific knowledge and the formation of contemporary worldviews (Kyselov, 2009).

In the philosophy of ecology, man, despite all his socio-cultural and scientific achievements, is seen as an earthly being with the functions of a biological system. Man's vital activity is directly related to the functioning of a set of biosphere mechanisms. At the same time, the philosophy of ecology explores the conflictual impact of man on nature, which in the twentieth century led to the emergence of the global environmental crisis, tries to understand the causes and find ways to reduce and overcome it.

An important question that needs to be addressed is whether scientific and technological advancements and their implementation are directly responsible for environmental issues, leading to the destruction of nature, depletion of natural resources, and worsening of living conditions. Alternatively, are these negative consequences a result of specific methods and forms of utilizing the benefits of science and technology?

Science and technology have an ambivalent nature when viewed from a materialistic understanding of society and a historical approach to understanding human nature. They can either worsen environmental problems or contribute to their solution. The kind of impact they will have on global problems, including environmental ones, directly depends on social relations. Different social systems have different socio-economic relations that determine the forms of deployment and goals of mastering scientific and technological progress, as well as the various practical orientations of this process.

The source of pathology is certain values that form and serve this way of life.

The members of the Club of Rome express their support for these conclusions. Since the publication of the first report "The Limits to Growth" in 1972, there has been an inseparable connection between scientific research methods and general philosophical assumptions and conclusions. This connection was primarily demonstrated in the selection and justification of the doctrine and strategy of studying world dynamics. "The Limits to Growth" Report advocated for a holistic view of the world, wherein knowledge of the whole is crucial to understanding components. In this regard, global environmental problems caused by industrial development and the material wealth of society indicate not only negative anthropogenic interference in natural systems that neglect the intrinsically sustainable flow of nature and its ability to sustain life but also the specifics of human social practice, whose philosophy is increasing profit-seeking.

The excessive deregulation and liberalization of the economy dictate short-term profit strategies, ignoring social and environmental values. The liberal philosophy has become the ideology of a new class of the emerging industrial society – the bourgeoisie. Consequently, many modern scientists and social reformers in the past half-century have viewed these liberal-bourgeois values and the capitalist mode of production as malignant.

Is it possible to envision a way out of the systemic crisis and overcome the world trends threatening to collapse? The researchers of the Club of Rome believed it was possible. In their reports, they have developed new methods to study the world and identified scenarios for global dynamics using existing algorithms. In their reports, they also provided suggestions for the future state of the world and opened up new perspectives for ongoing intellectual and practical endeavours to shape that future (Meadows et al., 1972, p. 186).

Although the authors of "The Limits to Growth" explicitly stated that their work was not intended as a piece of futurology (Meadows et al., 1972, p. 186), we believe that the development of the concept of a society in a steady state of economic and ecological equilibrium, as well as the holistic methodological approach, can be considered a type of social futurology. This concept does not rely exclusively on theoretical constructs or empirical generalizations. Instead, it aims to set

goals and an image of a new society that is transcendental to the current experience of practice and thinking. Therefore, the assumptions made in this concept are not just a product of scientific knowledge, but also of a philosophically hypothetical and ethically normative view. According to the Encyclopedia Britannica, an article on futurology, a section in the social sciences, studies of "The Limits to Growth" and similar studies projecting a generalized socioeconomic vision based on computer simulations are classified as a type of "technological forecasting" (O'Toole, 2017).

The movement towards a new paradigm of society was associated with fundamental changes in the nature of human practice, i.e. the reform of human qualities. The idea of reforming "human qualities" was also expounded by Aurelio Peccei, the first president of the Club of Rome. According to Peccei (Peccei, 1977, p. xi), salvation is only possible if people change their values, behaviour, and mores for the better. Previously, "The Limits to Growth" report identified crucial areas that require cultural shifts. Let us present their key paradigmatic philosophical principles. First and foremost (1) is the realization that the world is becoming one reality, but "If the world is becoming one, then the future must also be only one" (Meadows et al., 1972, p. 2); (2) is the understanding that the establishment of a new social paradigm "must be a joint venture based on joint conviction, with benefits for all" (Meadows et al., 1972, p. 194); (3) that collective and cooperative steps towards a new social paradigm must be planned (by planned measures, rather than by chance), or, as A. Peccei put it in this regard. Peccei "Long-term global goals, both feasible and acceptable, have to be set for mankind" ("Aurelio Peccei", 1974, p. 476). A. Peccei shared the view that man is indeed a rational and spiritual creature worth saving and therefore believed that the present crash-bound course can be countered and reversed only by the advent of a new humanism essentially based on and aiming at man's cultural development, that is, a substantial improvement in human quality throughout the world. The ideas of social solidarity, responsibility, justice, peace (as intolerance of violence) and protection of nature were further developed in his concept of a "new humanism". It is clear that the proposed concepts of "zero", and "organic" growth and the concept of new humanism are alternatives to the existing market fundamentalism.

The holistic approach is important in the analysis of world dynamics. It methodologically combines the logic of scientific rational

cognition, and scientific prognostics, as well as philosophical, moral and ethical normative views and principles. Thus, in the scientific aspect, this approach allows us to analyze the world as a global system in which all its elements are interconnected and interdependent. The world is understood as a complex system and a network of interconnections between society and nature. By applying scientific methods, we can describe and model various systems of the global world, taking into account their complex interactions. The philosophical dimension introduces a value-based and critical understanding of world dynamics. Holism in the philosophical dimension appears as a dominant value. The holistic approach emphasizes the importance of sustainable and balanced development, considering the priority of ensuring the life of the world system as a task of collective human intellectual and moral efforts.

Holism is metaphysically supported by the formation of the post-non-classical science paradigm within the philosophy of science and scientific methodology (Drotianko et al., 2020). Among its leading provisions are the recognition of the multiplicity of methods and approaches to scientific research, the emphasis on the contextuality of knowledge, the recognition of the role of socio-cultural factors in the formation of scientific theories and concepts, and the consideration of the interaction between researchers and research objects. Science, having introduced the position of the observer into its research, has come to the idea of interdependence of all material systems, and thus to the idea of the world and man being closed into a single whole (man is seen as an accomplice in the world processes). The world in science is increasingly imagined as a complex combination of the mental and the material (de Chardin), as a co-evolution of man and nature (Moiseev). One can find the same idea, in particular, in the works of V. Vernadskyi. The naturalist considered life as a natural, not accidental, planetary phenomenon in the global evolution that builds the biosphere and the noosphere (Vernadskyi, 2012, part IV). According to Vernadskyi, the noosphere is a new geological evolutionary change in the biosphere that is emerging spontaneously in our time. It is a sphere where rational human activity plays a crucial role in the development and interaction between society and nature. A. Linde's reflections on the anthropic principle are also relevant in this regard. In the light of quantum cosmology and inflationary theory, the scientist wondered: "Will it not turn out, with the further development of science, that the study of the universe and the study of consciousness are

inseparably linked, and that ultimate progress in the one will be impossible without progress in the other?" (Linde, 2002, p. 27).

The holistic approach provides us with a comprehensive perspective on how to determine whether someone is responsible or irresponsible for the crisis that the world system is currently facing. It also helps us understand the irrational and unsystematic actions that people take towards their own lives and the natural world. Separately, we note that the analysis of the "social responsibility" category against the background of the forecasts of researchers of the Club of Rome, in particular, was considered by O. Matyukhina (Matyukhina, 2021).

Since the formation of its non-classical paradigm in the nineteenth century, philosophy has been spreading a pessimistic and even tragic view of man. It stated that people are alienated from their own activities, their social essence, and nature. Hence the antinomy of human existence: "we have never been so free and also felt so powerless, refers to the experience of collective powerlessness in the face of humanly created ecological, technological, political, cultural and social change, a social experience that coincides and even seems to be produced by what is objectively an increase in humanity's social and material power" (Øversveen, 2021). This estrangement, or disconnection is attributed to historical and social practices or the structures of human nature. However, the latter case presents an insurmountable problem since man's conflict with himself and the world is eternal. This is because his egoism, irrational impulses, and lust are unbridled and remain unchanged. Only the former position leaves room for potential positive changes.

In the twentieth century, there were discussions regarding the conflicting development of humans by K. Tsiolkovsky, a theoretical scientist who was the pioneer of modern theoretical cosmonautics and rocketry, and a supporter of anthropocosm, and O. Chizhevsky, a biophysicist who was one of the founders of space natural science and space ecology. Thus, O. Chizhevsky recalled one of his conversations with K. Tsiolkovsky, in which he expressed his concern: "Imagine (Tsiolkovsky - author) that we would suddenly learn to transform matter into energy completely, that is, we would translate formal knowledge /.../ into reality. Well, then - with all of today's human morality – regard it as all lost /.../. The earth would turn into hell: people would show their pigeon-silly mentality – no stone would be left unturned. Humanity would be

destroyed!" as cited in (Shorina, 2021b). The statement of the discrepancy between the scientific and technological, in fact, intellectual capabilities of humanity as a whole and specific forms of its morality is a cross-cutting theme of humanist philosophical thought and science fiction to this day.

We can recall from Hegel's "Philosophy of Right" (Hegel, 2001) that a person's free will, as it transitions to rational self-understanding, must be objectified in ethical life, which is constituted by Family, Civil Society, and the State. If a person can only be realized in the forms of social collectivises, then his anxiety about the future should be not a purely moral problem, but a political one. In this sense, it is no coincidence that Vernadskyi believed that the emergence of noosphere life was linked to the type of democracy that valued the interests of the masses and the free thought of the individual. This system would prioritize the unity and equality of all people and promote scientific thinking and organized science as the driving force of evolution. This type of society in the geological history of the biosphere opens up a great future for man, "if he understands this and does not use his mind and his labour for self-destruction" (Vernadskyi, 2005). Despite his worries, the scientist remained optimistic. His optimism was rooted in his naturalism as a scientific and philosophical position. He believed that life is a natural phenomenon resulting from the evolution of the world and that the noosphere, which is a natural stage of the biosphere, is consistent with natural law. The scientist also noted that the biosphere would inevitably transition into the noosphere sooner or later. He believed that the civilization of "cultural humanity" is a new geological force that cannot be interrupted or destroyed (Vernadskyi, 2012, part I).

We can observe an extraordinary coherence of ideas among the above-mentioned scientists and the considerations of D. Meadows. In 2004,

based on monitoring the global system's behaviour, D. Meadows warned that since the 1990s, humanity has already crossed the line of self-sustaining the Earth's ecosystems. That is why the favourable scenarios of the 1972 model (with high or medium consumption) are no longer achievable. In 2000, the world's population of 6 billion, natural resource consumption, and environmental destruction corresponded to the most unfavourable (standard run) scenario. The time to implement favourable scenarios was lost. D. Meadows and his group predicted that if a "serious correction" of humanity's consumption of natural resources is not made soon, the collapse of humanity in one form or another (socio-economic, environmental, in the form of many local conflicts) will be inevitable, and "it will come during the lifetime of the current generation".

Finally, 2022 marked the 50th anniversary of the publication of the first report to the Club of Rome, "The Limits to Growth". To commemorate this milestone, a compilation book titled "Limits and Beyond: 50 years on from The Limits to Growth, What Did We Learn and What's Next?". The book includes contributions from the first scientists, Dennis L. Meadows and Jorgen Randers, in which they reflect on the "lessons of the past" and outline prospects for the future (Ugo, & Pereira, 2022).

In 2022, D. Meadows stated in an interview that their group had accurately aggregated the image of the global system. They confirmed that, as a result of their efforts, scientists generally concluded that "the world is moving along what we termed in our 1972 report to be the standard scenario" (Heinberg, & Meadows, 2022). Therefore, according to D. Meadows, the presented World Model Standard Run (Figure 2) is still useful for comprehending events taking place in the world, as well as for preparing for future prospects.
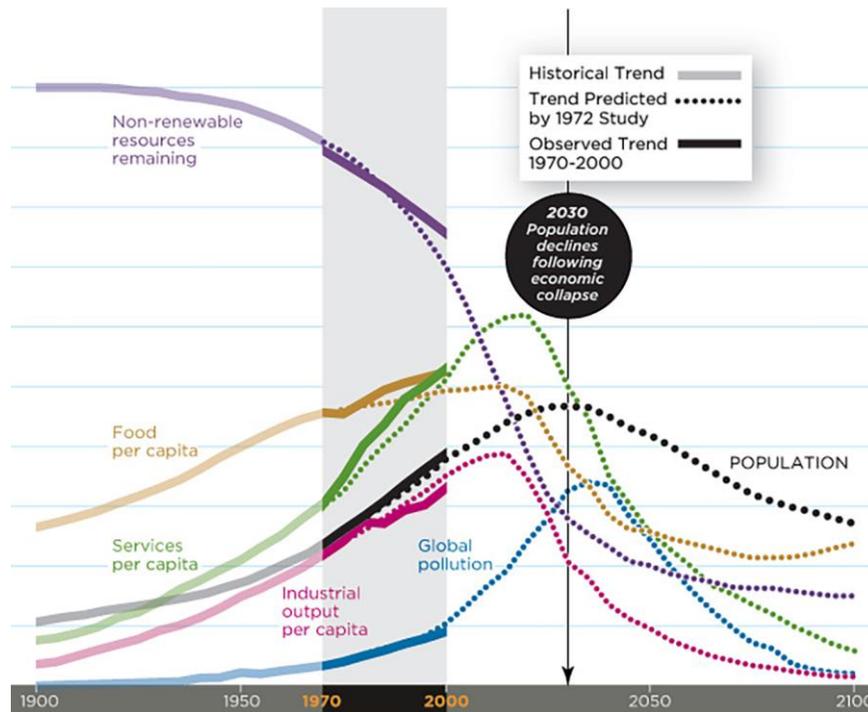
Figure 2. Reconstruction of Figure 35, page 124 of The Limits to Growth (1972).
Source: (Hamant, 2023)

In our opinion, D. Meadows is a rationalist due to his conviction for the existence of objective existence and truthful knowledge about the world. He can also be considered a social optimist and humanist. D. Meadows, along with his wife Donella Meadows (who passed away in 2001) and his entire research team, believed in the progress and rationality of humanity. Donella Meadows herself defined their shared epistemological positions. "We were at MIT", she said, "we had been trained in science. The way we thought about the future was utterly logical: if you tell people there's a disaster ahead, they will change course. If you give them a choice between a good future and a bad one, they will pick the good. They might even be grateful. Naive, weren't we?" (Weyler, 2022).

Through this epistemological optimism, they fuelled their arguments for changing the social paradigm of development toward a more balanced and just one. In Juan Bordera's interview with D. Meadows, the holistic scholar warned against mistaking the symptoms of problems for their true cause. Undoubtedly, the symptoms themselves should be eliminated, but without missing what lies behind them: "You can't sustain the growth by tackling problems one by one. Even if we were to solve climate change, we would encounter the next problem by continuing to grow, whether it is a shortage of water, food or other crucial resources. Growth is

going to stop, for one reason or another" (Meadows, 2022). Holism as a methodological approach is here contrasted with reductionism. Reductionism assumes that complex systems can be understood by analysing them into simpler components. Holism, in contrast, emphasizes that a true understanding of a system requires considering it as a whole. On the other hand, as we have seen, holism being a construct of rational thinking and systems analysis, despite the fact that it takes into account the complex and non-linear network of world interconnections, turns out to be an unproductive argument against the irrational and utilitarian-selfish nature of the behaviour of the world's actors. There is no linear determination between "change of consciousness" and "change of the world".

Conclusions

According to the Club of Rome's research, global problems are interdependent, and their solution requires a global approach. At present, it is not the natural environment, human nature, or science and technology that limit the rational and comprehensive use of natural resources to meet the needs of society. Instead, it is the nature of the development of material productive forces and the goals of social production that restrict the possibilities of crisis-free scientific and technical progress and social advancement of mankind. This point of view was initially expressed by the

scientists of the Club of Rome and has remained true over time. D. Meadows believes that the main cause of global problems is the ideology of infinite growth, which is expressed in GDP and the corresponding global policy. The excess of human activity over natural limits indicates the need to change the goal of humanity: not only to slow down but also to return to a level that can be consistent with the ecological limits of the planet. This state of affairs indicates that society is not sufficiently prepared for the future. Although technologies are available today that can reduce the severity of global problems, their use depends on political will. Today's global policy-makers remain focused on short-term goals. The difference from previous decades is that now there is less time to make important decisions. Unfortunately, the gap between "new thinking" like "new humanism" and the real state of affairs is only tragically widening.

The concept of holism, as a new social paradigm of development, is being advocated by the Club of Rome through the ideas of "new humanism" (Peccei) and "new enlightenment" (Weizsäcker, & Wijkman, 2018). Its ethical aim is to address the crisis in the world system and promote a more just and humane form of liberalism. However, the fundamental principles of the global capitalist system remain unchanged. In the authors' opinion, this vision of resolving contradictions is not dialectical, but "external", trying to "reconcile" contradictions. It seems highly important to address global problems and security issues by not just altering the philosophical and ethical constructs, but also the nature of its main organizational structures. However, this remains a theoretically idealized matter. In general, the debate around integrating socially-oriented values into the capitalist economic system and finding a balance between markets and the state requires a separate justification.

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The ways of development of soft skills, mets skills, and hard skills in students of higher education

Шляхи розвитку м'яких навичок, метанавичок та твердих навичок у студентів вищої освіти

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Abstract

The article analyzes the content and shows the importance and necessity of soft skills, mets skills, and hard skills today. The types of soft skills that are particularly important in modern society are highlighted and the most common classification of soft skills in the public space is presented. Mets skills are considered as a basis for the development, application, and improvement of knowledge and skills, as "higher order" skills that provide an opportunity to improve and understand the significance of other, already existing competencies and allow to achieve the set goal. The importance and necessity of professional hard skills – skills of working with machinery, equipment, and devices have been established. It has been proven that only a combination of soft skills, mets skills, and hard skills should and can become a cornerstone in the plan of training specialists in institutions of higher education. Ways of effective formation of

Анотація

У статті проаналізовано зміст та показано важливість і необхідність soft skills, mets skills, hard skills у сьогоденні. Виділено види soft skills, що особливо важливі в сучасному суспільстві та представлено найпоширенішу класифікацію soft skills у суспільному просторі. Mets skills розглянуто як основа для розвитку, застосування, вдосконалення знань та умінь, як навички «вищого порядку», що дають можливість покращувати та розуміти значущість інших, вже існуючих компетенцій і дозволяють досягати поставленої мети. Встановлено важливість і необхідність професійних навичок hard skills – навичок роботи з технікою, обладнанням, пристроями. Доведено, що тільки поєднання soft skills, mets skills, hard skills повинні й можуть стати у плані підготовки фахівців у закладах вищої освіти наріжним каменем. Показано шляхи ефективного формування soft skills, mets skills,

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soft skills, mets skills, and hard skills with the use of ICT are shown. It is noted that a necessary component in the international academic environment is the command of foreign languages.

Keywords: applicants of higher education, soft skills, mets skills, hard skills, institutions of higher education.

hard skills з використанням ІКТ. Зазначено, що необхідною компонентою у міжнародному академічному середовищі є володіння іноземними мовами.

Ключові слова: здобувачі вищої освіти, soft skills, mets skills, hard skills, заклади вищої освіти.

Introduction

The importance of universal soft skills, mets skills, and hard skills is confirmed by international and national studies and called "21st-century skills". In recent years, in the global labor market, the concept of "Soft skills" has become an integral part of society and the most diverse sectors of the economy. However, institutions of higher education in practice may not always create conditions for the comprehensive development of soft skills. Therefore, in the preparation of students of higher education, one of the main tasks in the modern educational space is to find ways for the systematic and purposeful development of soft skills (Shchehlova, 2021).

Until recently, it was assumed that a specialist trained in a higher education institution would be able to do everything and perform his work professionally, namely, work in a team, analyze, be resistant to stress, and this was not taught in higher education institutions, it was not separated into a certain specific branch. Nowadays, the attitude towards the development of soft skills, mets skills, and hard skills – important skills for a specialist in any field has changed, employers require separate and diverse skills and knowledge. Attention is paid to the ability to rationally allocate one's time, think creatively, work in a team, and communicate with different people, which has led to changes in the standards of higher education and educational programs in the educational sector (Kravets, 2020).

Professional communication in English, which is an integral component of a specialist's success in the professional field, is a relevant issue in the era of high technologies when training a specialist in any field. Therefore, English language learning should be professionally oriented in institutions of higher education and closely intertwined with the development of skills (soft skills, mets skills, hard skills) in higher education students. It is this combination that makes it possible to successfully compete in the labor market and opens up wider prospects for a person in his activities.

In the conditions of the challenges of the century, which are global, as a result of which the educational process is implemented on a remote platform, all teachers have to look for new ways to improve and develop soft skills, mets skills, hard skills and training for the development of communication skills.

Development of effective strategies for soft skills, mets skills, and hard skills training programs in any field can contribute to social changes in society, in general, in the labor market, increase the competitive advantage of companies, as well as provide opportunities for employees themselves to advance in careers summer stairs (Kuptsova & Kolieva, 2022).

Literature review

Foreign and domestic publications update the need for systematic and purposeful development of universal soft skills, mets skills, hard skills, and general competencies of higher education students.

James Heckman and Tim Kautz (2012) showed that it is "soft skills that predict success in life, that they causally cause this success, and that programs that improve soft skills occupy an important place in the effective portfolio of public policies".

P. Raciti (2015) determined that the development of soft skills and student training in a higher education institution should be a priority task of the educational space since soft skills are closely related to a person's social adaptation, personal well-being, and adaptation to the work context.

For the first time, a classification of "soft skills" was developed for future primary school teachers. I. Miroshnyk (2021), a complex of communicatively oriented exercises, which should be formed in the process of foreign language professional training in higher education students; within the scope of the educational discipline "Foreign language

according to professional direction", the peculiarities of the formation of "soft skills" in the applicants based on a specially developed complex of communicatively oriented exercises are revealed. M. Chykalova (2023) devoted her research to the analysis of the acquisition of communicative interpersonal skills by students of higher education in the specialty "International Relations" in the process of learning foreign languages, to promote the effective promotion of specialists in the professional field; an analysis of the concepts of soft skills, mets skills, and hard skills was carried out, the possibilities of creating abilities were compared, the corresponding possibilities in the training of students in higher education institutions, the characteristics of soft skills according to the direction of training "International relations" were presented.

The works of scientists are devoted to the integration of extra-professional skills in the process of learning foreign languages into university education (Kostikova et al., 2021). O. Kravets (2020), the problem of the development of soft skills in professional foreign language classes for students of higher education is considered, foreign language resources that help students of non-linguistic higher education institutions to develop and nurture soft skills are considered, the possibility, expediency, necessity are highlighted development of soft skills under the condition of properly selected resources in a regular English class.

During the study of a foreign language on a distance platform, T. Kuptsova and I. Kolieva (2022) considered the main methods, features, and ways of developing soft skills, mets skills, and hard skills. For graduates of engineering specialties, the ways of developing soft skills, mets skills, hard skills, and the possibility of language communication during negotiations, business conferences, meetings, meetings, work in international teams are shown; the ability to negotiate and convince, to make public speeches, to defend one's point of view; to implement critical thinking, written communication. The necessity of the English language for the formation of such skills is shown.

I. Kostikova, L. Holubnycha, Z. Girich, & N. Movmyga (2021) determined the degree of development of soft skills (team management, creativity, critical thinking, interaction with people, emotional intelligence, conflict management, stress resistance, flexibility) in higher education graduates, who successfully acquired further development with the help of

game learning tools in the process of learning English.

A. Albarrán, & C. González (2015) conducted scientific investigations and proved the connection between the degree of formation of soft skills of a higher education student and the effectiveness of professional tasks.

International studies by scientists confirm the importance of 21st-century skills – universal soft skills, mets skills, and hard skills. But because, in practice, institutions of higher education cannot always create conditions for the purposeful and complex development of soft skills, mets skills, and hard skills, therefore, in the modern conditions of training students of higher education, one of the main tasks is to find ways for systematic and purposeful development of soft skills, mets skills, hard skills.

So, the **goal** of our research is to identify the most optimal options for the development of sought-after soft skills, mets skills, and hard skills for those seeking higher education.

Methodology

Research methods were used in the research process:

- theoretical: analysis, comparison, systematization of scientific, methodical, educational literature on the subject of research on the development of soft skills, mets skills, hard skills in students of higher education, generalization of the development of soft skills, mets skills, hard skills to clarify the level of the research problem and its scientific development, determination of methodical principles of the raised problem, outline of directions of development of advanced progressive ideas in this field;
- empirical: indirect and direct observation, questionnaires, surveys, diagnostic methods, with the aim of systematizing and generalizing statistical and analytical material; a pedagogical experiment to reveal the real state of development of soft skills, mets skills, and hard skills among students of higher education;
- mathematical: (mathematical analysis, processing of melons, ranking);
- statistical: for statistical digital processing, summarization of the obtained results.

In the educational space of institutions of higher education, a survey of the degree of development

of sought-after soft skills, mets skills, and hard skills among higher education recipients was conducted with the help of a questionnaire developed in Google Forms. The proposed questionnaire contained open and closed-type questions.

When answering the questions, students of higher education had to determine the degree of development in the educational process of each of the proposed soft skills, mets skills, and hard skills on a 10-point scale. The questions were formulated in such a way that students of higher education started from their own opinions.

The proposed questions were aimed at obtaining information:

− respondents' understanding of soft skills, mets skills, and hard skills;
− expressing the opinion of each respondent regarding the necessity and importance of developing soft skills, mets skills, and hard skills in the educational process;
− expressing an opinion about the necessary soft skills, mets skills, hard skills for the future profession, etc.

Students in the last year of study took part in the survey.

The research made it possible to find out the ways that can contribute to the effective development of the necessary soft skills, mets skills, and hard skills in higher education applicants. The majority of respondents believe that the optimal ways of developing soft skills, mets skills, and hard skills are: their inclusion in professional disciplines, i.e. polishing and thorough development of the required soft skills, mets skills, and hard skills in the process of studying educational disciplines – 80% of respondents; introduction into the educational process of higher education institutions: trainings – 75% of respondents; elective disciplines – 67% of respondents; webinars – 55% of respondents; essays and portfolios – 53% of respondents; online courses – 50% of respondents; round tables – 49% of respondents; creative tasks – 49% of respondents; business and role-playing games – 40% of respondents; group and individual projects – 40% of respondents.

After analyzing the answers of the respondents to the questions of the questionnaire, the most optimal options for the development of the in-demand soft skills, mets skills, and hard skills were selected for those seeking higher education.

The conducted empirical research confirmed the need of higher education applicants for the systematic and purposeful development of soft skills, mets skills, and hard skills demanded by the modern labor market.

Results and discussion

1. Content, importance, and necessity of hard and soft skills today.

Soft skills are universal general competencies, extra-professional skills that allow a person to interact effectively in various life and professional situations and strengthen professional skills and are a necessary condition for successful professional implementation. "Soft skills" are used as synonyms of such concepts as "non-professional skills", "people skills", and "employability skills". Today, only professional skills are not enough, it is necessary to widely use the spectrum of universal (soft skills) skills to be competitive in the labor market. For this, a specialist must have the ability to quickly orient himself in non-standard, new conditions, learn throughout his life, solve complex professional tasks, accept challenges, and be able to overcome difficulties. From the very beginning of his career, a graduate of a higher education institution should be able to negotiate with partners, and clients, argue and communicate his position to other people, possess emotional intelligence, critical thinking, etc. (Shvedova et al., 2022).

The qualification level of the future specialist has always played a primary role for employers.

In the historical process of the professional field, attention was primarily paid to hard skills, which are easier to assess in a short period and are more technical. The present is characterized by constant improvement and development of technologies, which directly affects changes in the specialist's workplace. Therefore, the need for the appropriate skills of employees is evolving and changing, as modern companies face a changing competitive battlefield (Connell et al., 2014). The working environment, which means the modern student environment, is characterized by diversity, where specialists have the opportunity to interact in a multicultural world. The ability to apply interpersonal communication skills is critically important for the educational space and understanding of team members and colleagues. The constituent part of the student educational space is changing. In a modern educational institution, the student environment is a combination of people from

several age groups and people of different genders and ethnicities. An important element of the modern educational process is that "the change of generations has led to an increase in the demand for future workers with soft skills" (Bailey, 2014).

In 1959, there was a need for a sound scientific approach to the training of highly qualified military personnel of the US Army, and it was then that the terms hard and soft skills were coined in the military field. The importance and necessity of both the professional skills of military personnel (hard skills) and the relevance of the development of soft skills and their universal competencies were established, and the differences between hard and soft skills were shown. (hard skills – skills of working with machinery, equipment, devices; soft skills – skills of teamwork, working with people, papers). The terms hard and soft skills, which were used only in military psychology and science, later moved to the business sphere, the business sphere, and education. The requirements for hard skills remain unchanged in different companies, and for soft skills – they are situational and change.

Hard skills ("hard" skills) – knowledge of programming languages, knowledge of foreign languages, ability to type quickly, mathematical calculations, etc., where any skill can be evaluated objectively.

Soft skills ("soft" skills). It is much more difficult to measure them in specific indicators, but it is possible to develop them. These are universal competencies, the degree of manifestation of which depends on the characteristics of the character, personality type, and temperament of a person – inclination to teamwork, sociability, the ability to work in conditions of force majeure, etc. (Kuptsova & Kolieva, 2022).

2. Types of soft skills that are especially important in modern society.

Soft skills identified in the workplace as important levers include teamwork, communication, problem-solving, motivation, trust, and enthusiasm. Communication skills are crucial for success in any field of human activity (Oseredchuk et al., 2022). Employers are constantly determined by the soft skills they consider appropriate. The most in demand are adaptability, creativity, cooperation, conviction, and emotional intelligence (Kuchai & Kuchai, 2019). Employers want to see a high level of self-organization, communication, and public

speaking skills, the ability to create presentations, master office programs, and manage projects (Puhach et al., 2021).

M. Franco-Ángel, J. Carabali, & M. Velasco (2023) identify the following types of soft skills that are particularly important in modern society:

1) the area of interpersonal relations (objective self-assessment; contact; empathy and compassion for other people);
2) personal dynamics (striving for achievements; sense of responsibility; high motivation; self-confidence);
3) desire for success (motivation to maintain status; self-sacrifice; initiative; tendency to systematize);
4) endurance (resistance to failure and criticism; positive emotional guidance; job satisfaction; firmness of life position).

The Boston Consulting Group, an international company specializing in management consulting, conducted a study of the most important qualities of candidates for a vacant position, and the significance for employers of various soft skills:

– communication skills are most in-demand – 79% of respondents claim this;
– vital active position – 78%;
– think analytically – 77%
– endurance – 75%;
– teamwork – 74%;
– desire to achieve the set goal – 70%;
– the ability to be inspired by new ideas – 54%;
– the ability to positively resolve conflicts – 54%;
– personal creativity – 43%;
– reliability as a person and specialist – 42% (David et al., 2021).

Operating on such ladies, it was concluded that the importance of soft skills is constantly growing, and the development of these skills in a higher education student is aimed at making him competitive in the labor market and a worthy member of society (Kravets, 2020).

If for 2023 the defining skills for a specialist in any field of activity were: communication skills, an active life position, analytical thinking, endurance, teamwork, striving to achieve a set goal, solving complex tasks and conflicts, critical thinking, personal creativity, the ability to interact with people, the ability to manage people and be inspired by new ideas, the reliability of a person and a specialist, the ability to make

decisions, etc., then for 2025 the rating of skills is slightly changing:

1) innovativeness and analytical thinking:
2) educational strategies and active learning;
3) the skill of complex problem-solving,
4) formation of ideas;
5) think critically and analyze the situation;
6) initiative, creativity, originality;
7) 7 personal leadership and social influence on it;
8) use of innovative technologies, development of technologies;
9) peer evaluation and monitoring;
10) stress resistance of the individual and human flexibility;
11) solution, justification of problems (World Economic Forum, 2023).

3. The most common classification of soft skills.

The most common classification of soft skills in public space is the distribution of soft skills according to the following categories:

1) social and communicative skills (interpersonal skills, communication skills, leadership, group work, human social intelligence, communication ethics, responsibility);
2) cognitive skills (problem-solving skills, critical thinking, intellectual load management, innovative thinking, information skills, time management, self-study skills);
3) components of emotional intelligence and personality attributes (creativity, emotional intelligence, optimism, honesty, flexibility, empathy, motivation) (Guerra-Báez, 2019). Between categories and within each category, personality qualities and individual skills overlap (Shvedova et al., 2021).

4. Mets skills – the basis for development, application, and improvement of knowledge and skills.

Mets skills are "higher-order" skills that make it possible to improve and understand the significance of other, already existing competencies and allow you to achieve the set goal, they are "skills that are outside the boundaries, that is, super-professional, interdisciplinary, those that go beyond the usual way of thinking, perception of the surrounding world and oneself" (Chykalova, 2023).

Interesting studies were conducted at Stanford and Harvard universities. In particular, scientists claim that only 15% of career success is ensured by the level of acquired professional skills, and 85% belongs to soft skills. These facts, obtained during the research, motivate the student of higher education to purposefully develop such skills that will be useful to future specialists in various life situations when solving important issues.

At today's stage of society's development, effective professional activity and the training of specialists for it cannot be successfully developed without another type of skills – mets skills, "higher order" skills that allow the future specialist to achieve the set goal, that enable the student of higher education to better understand ways of acquiring competencies important for professional activity and improving existing ones. It is mets skills that are the basis for the development, application, and improvement of other skills and knowledge. Note that only the combination of soft- and mets skills should and can become a cornerstone in the plan of training specialists in institutions of higher education (Bida et al., 2022).

5. The effectiveness of the formation of soft skills, mets skills, and hard skills using ICT.

From the side of the students of higher education, as well as from the side of the teachers, the use of information management systems for the educational process contributes to the improvement of the quality of education and the development of soft skills, mets skills, and hard skills in students of higher education.

Distance learning services and platforms are considered a means of authentic communication, becoming a mandatory element in the process of language education and information exchange. The effectiveness of the formation of soft skills, mets skills, and hard skills with the use of ICT depends on the correctly selected material, the clarity of tasks, and the formulation of instructions by the communication needs and competence of students with the help of a technical tool, the attractiveness of ICT occurs and appears in the cooperation of the teacher with students of higher education in the form of projector equipment, a laptop, a telephone where the teacher plays the role of a facilitator, who only coordinates the process of cognitive and creative activity of students, directing their work so that all students of higher education in the course of the lesson, they joined the work and the

percentage of achievement of the developmental component of the goal in the lesson constantly increased (López de Parra, 2017).

6. Proficiency in foreign languages is a necessary component in an international academic environment.

In the international academic environment, to successfully adapt to the exchange of scientific, professional, and research information, mastering foreign languages is a necessary component. Therefore, the basis for the formation of soft skills, mets skills, and hard skills is a foreign language, which has become one of the main components in the field of successful business and any professional activity, which contributes to the development of international cooperation, and work in international teams. In the process of studying professional disciplines, students of higher education develop the following social skills:

− communication skills: the ability to communicate in language during conferences, negotiations, business meetings, meetings; the ability to negotiate and convince, defend one's point of view, make public speeches; to skillfully implement written communication;
− critical thinking: the ability to resolve conflicts and avoid conflicts; the ability to reach agreement and agreement;
− leadership traits: the ability to identify the essence and main trends of any issue through observation.

The challenges of the 21st century have presented new global challenges to the educational space, intensifying the need for all forms of the educational process. Therefore, the development of soft skills, mets skills, and hard skills becomes even more relevant for the successful construction of a professional career, for the personal growth of young people, and for the development of a person's communicative abilities. We see the mandatory use of various types of exercises and tasks aimed at the development of such skills as soft skills, mets skills, and hard skills in practical foreign language classes.

Tasks, communication exercises, and meetings during business communication help students of higher education remove the language barrier and contribute to their self-confidence as individuals.

Socio-pedagogical means of forming the moral qualities of higher education students are not just watching films, but also discussing the problems that arise in them, similar to writing articles in a newspaper.

Presentations are a component that is very relevant in modern professional activity. during the preparation and demonstration of presentations, such an important skill as creativity is developed and improved in students of higher education.

The following tasks should be given in classes (vote for the most promising and best project), which contribute to the analytical and critical thinking of young people, and stimulate the attention of those seeking higher education. To teach students of higher education to manage their time, it is necessary to set strict time frames before completing the relevant tasks. It is advisable to appoint a responsible student of higher education from the group who will monitor the time.

Time management is a method that helps to improve the quality of one's life, one's effectiveness, to life, and to work.

Very useful for the development of soft skills, mets skills, and hard skills is teamwork, which is very limited during distance learning, which is currently used too often in the educational process. The need for the development of soft skills, mets skills, and hard skills, the components of which are the ability to make presentations of projects or one's work, communication skills, teamwork, and time management is no longer in doubt today. The combination of personal and professional characteristics of an individual will allow future specialists to find their place in the multicultural world and successfully build their careers (Kuptsova et al., 2022).

7. Experimental research.

In the educational space of institutions of higher education, a survey of the degree of development of sought-after soft skills, mets skills, and hard skills among higher education recipients was conducted with the help of a questionnaire developed in Google Forms. The proposed questionnaire contained open and closed-type questions.

When answering the questions, students of higher education had to determine the degree of development in the educational process of each

of the proposed soft skills, mets skills, and hard skills on a 10-point scale. The questions were formulated in such a way that students of higher education started from their own opinions.

The proposed questions were aimed at obtaining information:

–   respondents' understanding of soft skills, mets skills, and hard skills;
–   expressing the opinion of each respondent regarding the necessity and importance of developing soft skills, mets skills, and hard skills in the educational process;
–   expressing an opinion about the necessary soft skills, mets skills, hard skills for the future profession, etc.

Students in the last year of study took part in the survey.

The conducted survey showed that:

–   87% of respondents have an idea of such a concept as soft skills;
–   13% indicated that they do not know the essence of the concept of soft skills, and only 18% of all surveyed respondents have an idea about the concepts of mets skills and hard skills.

We received the following answers to questions regarding the promotion of the educational process to the sufficient development of soft skills, mets skills, and hard skills necessary for work in the educational process. The educational process promotes the development of soft skills, mets skills, and hard skills at the level (on a 10-point scale):

9–10 points – 17% of respondents;
7–8 points –38% of respondents;
5–6 points – 27% of respondents;
3–4 points – 10% of respondents;
1–2 points – 5% of respondents.

The next question of the questionnaire was aimed at finding out the opinion of the respondents regarding the necessity and importance of developing soft skills, mets skills, and hard skills in the educational process. 93% of respondents consider the development of soft skills, mets skills, and hard skills necessary and important in the process of learning in institutions of higher education. 7% disagree with this opinion.

A question was proposed to find out the opinion of respondents regarding the level of development of emotional intelligence in the educational space of a higher education institution. In the educational space of a higher education institution, the development of emotional intelligence is facilitated by soft skills, mets skills, and hard skills at the level (on a 10-point scale):

9–10 points – 13% of respondents;
7–8 points – 35% of respondents;
5–6 points – 27% of respondents;
3–4 points – 13% of respondents;
1–2 points – 4% of respondents.

During the training, it was suggested to assess the level of development of such skills as self-analysis on a 10-point scale. 70% of the respondents rated it by 6-10 points, and 30% of the respondents – by 2-5 points.

Questions to find out the opinion of the respondents regarding the level of development of such skills as originality and creativity in them gave the following answers:

9–10 points –17% of respondents;
8–7 points – 42% of respondents;
6–5 points – 29% of respondents;
1–4 points – 20% of respondents.

In response to the question regarding the assessment of the level of development in the educational process of a higher education institution, such a skill as the ability to study, results were obtained indicating that the majority of respondents rate the development of such a skill quite highly. These are 76% of respondents who gave 6-10 points, and 24% of respondents – 2-5 points.

The next question is aimed at clarifying the development in the process of learning such a skill as critical thinking. As for the level of development in the educational space of critical thinking respondents, the following results of the distribution of respondents' evaluations were obtained. The level distribution is as follows:

6–10 points – 75% of respondents;
2–5 points – 25% of respondents.

Questions were proposed regarding the development of analytical thinking in the educational process. In the course of the educational process, the respondents evaluated its development in this way. The level distribution is as follows:

6-8 points – 60% of respondents;
2–5 points – 20% of respondents;

9–10 points by 20% of respondents.

As for the development of self-organization skills in the educational process, which is suggested by the next question, the following results of the distribution of respondents' evaluations were obtained. The level distribution is as follows:

6–10 points – 80% of respondents;
2–5 points – 20% of respondents.

It was proposed to assess the skills of stress resistance and flexibility. We received the answers of the respondents according to the equal distribution as follows:

8–10 points – 43% of respondents;
5–7 points – 33% of respondents;
1–4 points – 24% of respondents.

Respondents could choose several answers to the question "Name the necessary skills that, in your opinion, will be necessary in your professional activity." The majority of respondents believe that the following skills will be needed in professional activities:

–   communication skills – 89% of respondents;
–   ability to solve complex problems – 88% of respondents;
–   analytical thinking – 85% of respondents;
–   stress resistance and flexibility – 80% of respondents;
–   self-organization – 78% of respondents;
–   critical thinking – 77% of respondents.

To the question "What skills would you most like to develop?" respondents could choose several answer options. The answers received are as follows: the respondents would rather develop such skills as:

–   critical thinking – 62% of respondents;
–   stress resistance and flexibility – 58% of respondents;
–   adaptability – 59% of respondents;
–   emotional intelligence and communication skills – 42% of respondents;
–   ability to learn – 41% of respondents.

To the question "What ways can contribute to the effective development of students' necessary soft skills, mets skills, and hard skills?". The majority of respondents believe that the optimal ways to develop soft skills, mets skills, and hard skills are:

1) their inclusion in professional disciplines, i.e. polishing and end-to-end development of required soft skills, mets skills, and hard skills in the process of studying educational disciplines – 80% of respondents;
2) introduction into the educational process of institutions of higher education:

–   trainings – 75% of respondents;
–   elective disciplines – 67% of respondents;
–   webinars – 55% of respondents;
–   essays and portfolios – 53% of respondents;
–   online courses – 50% of respondents;
–   round tables – 49% of respondents;
–   creative tasks – 49% of respondents;
–   business and role-playing games – 40% of respondents;
–   group and individual projects – 40% of respondents.

After analyzing the respondents' answers to the questions of the questionnaire, it is possible to identify the most optimal options for the development of sought-after soft skills, mets skills, and hard skills for those seeking higher education.

The conducted empirical research confirmed the need of higher education applicants for the systematic and purposeful development of soft skills, mets skills, and hard skills demanded by the modern labor market.

Conclusions

The content is analyzed and the importance and necessity of soft skills, mets skills, and hard skills in today's world is shown. The types of soft skills that are particularly important in modern society are highlighted and the most common classification of soft skills in the public space is presented: this is the distribution of soft skills according to the following categories: social and communicative skills (interpersonal skills, communication skills, leadership, group work, human social intelligence, ethics communication, responsibility); cognitive skills (problem-solving skills, critical thinking, intellectual load management, innovative thinking, information skills, time management, self-study skills); components of emotional intelligence and personality attributes (creativity, emotional intelligence, optimism, honesty, flexibility, empathy, motivation).

Mets skills are considered as a basis for the development, application, and improvement of

knowledge and skills, as "higher order" skills that provide an opportunity to improve and understand the significance of other, already existing competencies and allow to achieve the set goal.

The importance and necessity of professional hard skills – skills of working with machinery, equipment, and devices have been established. It has been proven that only a combination of soft skills, mets skills, and hard skills should and can become a cornerstone in the plan of training specialists in institutions of higher education.

Ways of effective formation of soft skills, mets skills, and hard skills with the use of ICT are shown.

It is noted that a necessary component in the international academic environment is the command of foreign languages.

The conducted empirical research confirmed the need of higher education seekers for the systematic and purposeful development of soft skills, mets skills, and hard skills demanded by the modern labor market and made it possible to identify the most optimal options for higher education seekers to develop the required skills.

The development of mets skills, "higher-order" skills that provide an opportunity to improve and understand the significance of other, already existing competencies and allow achieving the set goal, requires further research.

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Use of onomastic material in the educational space

Використання ономастичного матеріалу в освітньому просторі

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Abstract

The article analyzes the content of onomastics and the onomastic system in the modern language; the main principles and perspectives of the etymological process of proper names are highlighted; the specifics of the onymic space of the work of art are revealed; a review of digital methods for research and presentation of onymic material was carried out; characteristics of names and their criteria are presented. An experimental study of the importance of using onomastic material in the educational space was conducted, where special attention was paid to the quantitative and qualitative analysis of the results of the use of onomastic material. In the experimental groups, during the exercises, techniques, and methods of work that activate the student's thinking were combined, and different types of tasks were offered among the exercises, the content of which was onomastic vocabulary

Анотація

У статті проаналізовано змістове наповнення ономастики та ономастичної системи в сучасній мові; виокремлено основні принципи та перспективи процесу етимологізування власних назв; розкрито специфіку онімного простору художнього твору; здійснено огляд цифрових методів для дослідження та презентації онімного матеріалу; представлено характеристики онімів та їх критерії. Проведено експериментальне дослідження важливості використання ономастичного матеріалу в освітньому просторі де особлива увага приділена кількісному і якісному аналізу результатів використання ономастичного матеріалу. В експериментальних групах, під час опрацювання вправ поєднувалися прийоми та методи роботи, що активізують мислення студента, пропонувалися різні типи завдань серед вправ, змістове насичення яких було

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using an innovative method. Research in the experimental group showed the effectiveness of the innovative methodology and a significant increase in the level of cognitive activity among students.

Keywords: onomastics, onomastic material, institutions of higher education, etymology of proper names, digital methods.

ономастичною лексикою за інноваційною методикою.

Ключові слова: ономастика, ономастичний матеріал, заклади вищої освіти, етимологізування власних назв, цифрові методи.

Introduction

The word is the most active unit of speech, therefore, due attention should be paid to the study of lexemes at all educational levels. A conscious attitude to language begins with penetration into the lexical richness of the linguistic sphere. A conscious understanding of a person's lexical reserve, its sufficiency, is one of the conditions for fluency in both written and oral speech of an individual, which is the basis of human development, his educational and cognitive activity, which is a fundamental feature of humanity.

One of the effective means for partially solving the problem of national revival of any country, which consciously helps the young generation to acquire practically inexhaustible educational opportunities and educational opportunities in the educational space, is the use of onomastic material by the student of higher education. As evidenced by the work practice of teachers of educational institutions, such an approach to the content of education contributes to the development of student's ability to use words, constantly stimulates their cognitive activity, helps to develop and reveal potential opportunities for students, and generally affects the formation of personality.

Onomastics in the modern space of education include several sections of science, which are interconnected and distinguish different classes of onyms, respectively. classifications of proper names that exist today have a different number of proper names and their degrees. Moreover, there is still no unanimity among scientists regarding the number of discharges.

Literary onomastics, which arose on the healthy soil of folk realities, live and develop for centuries by onomastic university laws that exist in the literary world unified process, enriching and growing together with the development of national literature. The literary process gave the world numerous names of playwrights, poets, and writers who made an invaluable contribution

to the development and formation of literary onomastics (Hohulenko, 2021).

One of the main directions of modern linguistics and its development is the selection for the adequacy of the translation of proper names into the target language of the translation strategy, the development of issues of functioning in the artistic works of various groups of onyms, and decoding of compressed information in them. (Podhurska, 2021).

In the article, we considered the following main aspects: basic principles and perspectives of the etymological process of proper names; specificity of the onymic space of an artistic work; A survey of digital methods for the research and presentation of onymic material; an experimental study of the importance of using onomastic material in the educational space; recommendations for educational space.

Literature review

One effective means that can help the young generation partially solve the problem of national revival is the use of onomastic material, which has practically inexhaustible educational and educational possibilities. This content of education, as evidenced by the work practice of individual teachers of secondary schools, constantly stimulates the cognitive activity of students, contributes to the development of their ability to use words, helps to identify and develop potential opportunities for schoolchildren, affects the formation of the Ukrainian-speaking personality as a whole.

Many researchers were engaged in developing the principles of analysis of literary onomies and literary onomastics.

P. Sabet & G. Zhang, (2020). presents an account of how first name choice is influenced by socio-ethnic changes during the transitional period between two Iranian governments. Show the differences, however divergent they are initially,

converge and consolidate name change patterns derived from sociopolitical modifications. MacKenzie, L. (2018) describes how students can be introduced to the basics of linguistic analysis using personal, product, and place names as data. The author outlines several areas of linguistics that can be effectively taught at an introductory level through name data and provides examples of accompanying in-class and take-home exercises. The article demonstrates that the everyday familiarity of names and the ready availability of name data combine to create a class that not only engages students but also teaches them practical data-analysis skills.

C. Juncal (2018). analyses the evolution of the anthroponymical repertoire of a municipal council located in the west of the province of Vizcaya, in the Spanish Basque Country. It has traditionally been a Spanish-speaking area, although it is now clearly influenced by the language policies of the Basque Autonomous Community to which it belongs, where recent years have witnessed a major expansion in the use of the Basque language in different ambits. This study examines the evolution of onomastic usages over a period that includes the transition from the Franco era to democracy in the 1970s, with the ensuing quantitative and qualitative shift in the choice of children's names.

The necessity of using onomastic material in the educational process with children was pointed out at one time by E. Aldrin (2019). He shows how a small group of Swedish teenagers handle onomastic choices of self- and other-referencing as part of their everyday mobile phone interaction. It further discusses how the teenagers explained their views regarding online names during interviews. The data are analyzed qualitatively using theories of identity and social positioning.

The need for wide use of local, in particular onomastic, material in the school's educational activities was pointed out by T. Vilchynska et al. (2021). They investigate conceptual metaphor as a lingua-instrumental tool by which a person can know, evaluate, and transform the world. The history of metaphor study has been considered in detail, from its complete denial to understanding as a mechanism of objective reality cognition, and it has been found that most approaches to the interpretation of metaphor were demonstrated in the twentieth century. In particular, it has been considered as a means of forming concepts, as a semantic-two-dimensional, clearly connoted unit, as a symbolic structure of language, as a marker of quirk, and as an object of linguistic and cultural research, etc. I. Podhurska (2021) devoted her research to the analysis of the onomastic space of the famous British writer Roald Dahl, which occupies an important place in children's literature because his works about children and for children have many proper names that reflect the country's culture, religious beliefs, and history. Onomastic units became the subject of study because they play an integral role in revealing the plot of a literary work. The researcher has shown in modern English-language texts of the fantasy genre the growing importance of the problem of the functioning of onyms in children's works by R. Dahl, in particular, and in the literary field in general, since they play an important role in the formation of a unique image system of the fictional world; about a hundred units were allocated to mark the names of characters, domestic animals, and geographical objects; there was an immersion in the semantics and etymology of onomastic components.

O. Melnyk, & O. Voloshina (2022) distinguished the concepts of "onomastic space" and "onym space", described the state of the study of ergonyms and its history in linguistics, characterized the main approaches and stages to the study of modern toponymy, clarified the linguistic status of the definition of "ergonym", determined that a toponym is "a concept that embodies the semantic features of the onymic space, and a lexical unit, the creation of which is determined by the action of word-forming features and models".

The relevance of such studies is determined by the specificity of onomastic vocabulary and its difference from other classes of words. Although modern onomastic research uses all linguistic methods without exception, many acquire new forms and approaches. Analyzing the methods of onomastic research, scientists concluded that the most widespread of them are: "descriptive, areal, genetic, typological methods, as well as various methods of comparative and historical linguistics." On the other hand, the onomastic material requires the connection of some additional methods or techniques for its comprehensive analysis.

O. Hrynyova, L. Tereshchenko (2015) devoted their research to the problems of translating proper names in literary works for children. Names in such works often contain additional information about the character's habits, character, and origin, that is, they are telling. Intertextual information in such a name can be "hidden" because it becomes a kind of challenge

for the child that arouses interest. The factors that are caused by several translations of proverbial names are singled out: the difference in the interpretation of the symbols identified in the two cultures; the cultural and temporal distance between the audience and the original text; the difference in the interpretation of the content by the translator and the author; a play on words that is lost in translation; the difference in gender categories in two languages; subjective preferences of the translator, etc. O. Hohulenko's (2021) research is aimed at determining the features of functioning and delineating the role of anthroponyms; considering reproduction in the onymic space of anthroponyms; definition in the construction of the whole artistic meaning of the anthroponymic system. It has been proven that the onymic vocabulary supplies the text with various information (ethnographic, historical, connotative, geographical, etc.); endowed with a nominative function; participates in chronotope modeling; onymous vocabulary plays a structural-semiotic and constructive role in the formation of the "artistic picture of the world".

Given the constant increase in the onomastic corpus material, the interest of scientists in its study does not decrease. In addition, questions regarding the structure of the onomastic space and the relationship of elements within it, clarification of the onomastic status of some groups of proper names, terminological certainty, etc., remain relevant.

In any case, the modern onomastic space is by its structure a complex entity, within which separate sectors or fields are distinguished. The center of the onomastic space is anthroponyms, on the periphery there are constantly changing groups of proper names – ergonyms, pragmatonyms, urbanonyms, etc.

The extraordinary variety of proper units, the uneven study of them, and the debatable belonging to the onomastics of some classes of names caused the presence of different views on the structure of this array of vocabulary, the instability and undeveloped terminology for individual groups and subgroups of proper names, which requires their further thorough study.

As we can see, the appearance of numerous investigations in the field of literary onomastics made it possible to reveal specific features of the onomic space, new ways of researching the role of proper names in modeling the artistic picture of the world; to show the onymic component, which turns out to be more significant and weightier in works for children than in works for adults, to distinguish two groups: emotional and informational and to characterize the functions that quite logically belong to these groups; classify proper names, distinguish between the concepts of "onomastic space" and "onym space", describe the state of toponymic study and history in linguistics, characterize the main approaches and stages to the study of modern toponym. However, not enough attention is paid to the use of onomastic material in the educational space.

The purpose of the research: is to find out innovative ways of using onomastic material in the educational space.

Methodology

In our study, the following methods were used to achieve the goal:

– theoretical: analysis of psychological, linguistic, pedagogical, and methodical literature; generalization and theoretical understanding of the pedagogical prospective experience of teachers;
– empirical: diagnostic observation of the amount of use of onomastic material by teachers in language classes, of the level of development of the educational and cognitive activity of students of the educational space; conversations with students and teachers; psychological and pedagogical observation, questionnaires, interviews;
– statistical: qualitative and quantitative processing of experimental data.

The research was conducted in three stages.

The first stage. The state of the problem in pedagogical practice and theory was studied; psychological-pedagogical and linguistic literature was studied; developed diagnostic tasks using onomastic material were implemented; the system of work was modeled to develop the educational and cognitive activity of students of the educational space in the process of language learning.

The second stage. Research and experimental work were carried out; the effectiveness of the proposed method was checked; with the use of an onomastic dictionary, the developed system of exercises was tested, the effectiveness of the experimental program was checked on the onomastic material with a block of exercises to

stimulate the cognitive learning activity of the acquirers of the educational space.

The third stage. Conclusions were formulated; the results of the research work were clarified and summarized; methodical recommendations were developed.

In the experimental study, special attention is paid to the quantitative and qualitative analysis of the results of the use of onomastic material in the educational space.

For the experimental teaching method, exercises were developed aimed at forming practical skills of differentiating onyms and appellatives in students of higher education, successive deepening of onomastic awareness of students of higher education.

In the experimental groups, during the study of the exercises, techniques, and methods of work that activate the students' thinking were combined: synthetic, analytical, and analytical-synthetic. Different types of tasks were offered among the exercises, the content of which was onomastic vocabulary using an innovative method. We developed a hypothesis and received positive confirmation of it as a result of research work. The research was carried out among students who are obtaining a bachelor's degree in the 3rd and 4th years.

64 students from the control group and 71 students from the experimental group took part in the experiment.

A significant increase in the level of cognitive activity among students of the experimental group is shown by the following experimental research data: the third year – by +17%; the fourth year – by +21%, and a significant decrease in the number of students with a low level of activity: the third year – by -31.8%; the fourth year – by -17.6%.

At the same time, no significant changes were observed in the control group, but there were still certain shifts in the development of the cognitive activity of student youth since each teacher did everything to activate the vocabulary of students, which is the fundamental basis for their development so that students are active in cognitive activities and studied with interest.

The reliability and validity of the obtained results, and the objectivity of their assessment were ensured by the methodological soundness of the initial positions and the qualitative mechanism for evaluating the quality under study, the use of a complex of complementary research methods, and the involvement of a group of respondents from a higher educational institution in the analysis of its results.

To assess the homogeneity of experimental and control data, statistical processing was performed using MS Excel and SPSS (Statistical Package for Social Science).

Research relies heavily on the accuracy and reliability of the data. In the framework of research work, the quality of data collection and analysis not only adds weight to the research but also contributes to the formation of sound conclusions, which is the key to academic success.

The following digital data collection tools were useful in the study:

– Google Forms – a simple tool for creating surveys that allows you to collect data from respondents, create different types of questions, and collect answers in spreadsheets.
– SurveyMonkey – a modern survey tool that offers a wide range of customization options and analytical tools for analyzing the collected data.
– JSTOR, Google Scholar, and other academic search engines provide access to scholarly articles, books, and other academic resources that may be useful for literature review and theoretical data collection.
– Zotero or Mendeley – bibliography management programs that help organize research materials, store references, and format bibliographies and citations according to different citation styles.
– Microsoft Excel or Google Sheets – spreadsheets are useful for organizing and analyzing collected data when working with quantitative data.
– SPSS, R, or Python for more advanced data analysis, statistical analysis, and processing of volumes of data.

The results of the experimental study confirmed the applicability, optimality, and effectiveness of the proposed pedagogical conditions for the formation of an environmental culture of an ecologist in the process of professional training.

Results and discussion

The content of onomastics and the onomastics system in the modern language. The term

"onomastics" includes the art of naming and has been used in linguistic literature with various meanings, that is, it is a multi-meaning term.

Onomastics has three meanings:

1. The branch of linguistics that thoroughly studies personal names (surnames of animals and people, first names, surnames, patronymics) – in this sense, it is synonymous with the term anthroponymics.
2. As a subject of linguistic study – a system or collection of personal names – in this sense, it is synonymous with the term onomasticon.
3. A branch of linguistics that thoroughly studies proper names – in this sense, onomastics is perceived as a term – a proper name, or proprial, is "a name given to a specific object, a person to distinguish him (her) from several identical or similar", and "the branch of linguistics that studies any proper names is defined as onomastics".

We conclude that onomastics is considered a science that studies toponyms and proper names (anthroponyms) (Akoto, 2023).

A unique subsystem in the modern language is formed by units of the onomastic system with its own laws of functioning and development and special system-forming mechanisms. Onyms are one of the means of determining the spatiotemporal parameters of the image of the world, which provide the sign designation of such coordinates as the object (subject) of real reality, and this is what determines the "high communicative and pragmatic potential" in the "realization of the sociocultural function of language". The specificity of onyms is determined by extralinguistic factors, not only linguistic status, which in turn directly affects the functioning and formation of the semantic structure of onyms.

We define the onomastic space of the language in our research as a collection of all proper names (invented and real), and this is an open system that is constantly changing due to the appearance of new onomastic objects.

The onomastic space, according to its internal structure, is a complex entity. It is structurally represented by fields with peripheral and nuclear groups of proper names.

By the onomastic space, scientists understand "the entire set of proper names regardless of its internal organization", and "the onomastic field is seen as an ordered, hierarchically organized set

of onyms, which is characterized by the presence of certain structural and systemic connections and united based on common features" (Fernández Juncal, 2018).

Today, at an appropriate scientific level, it is important to analyze and describe these observations and empirical facts, because, among onomastics and linguists themselves, there are repeated calls to strengthen all the main sections of onomastics at the scientific-theoretical level of research given a certain decrease in the specialization of onomastics works. This question should be characterized in more detail because it is multifaceted.

Special attention should be paid here, in our opinion, to the diachronic aspect of onomastic studies. One of the most effective approaches is etymological because it is important in the study of proper names, it makes it possible to investigate all levels of the structure (word-forming, morphological, phonetic) of the onym, to restore its pre-onymic (basic) semantics, to find out the ethnic affiliation of the name according to those linguistic laws that reflected in it, determine the probable time of appearance of a specific name. Since the favorite onym is mostly formed based on a common specific name, we find out its origin within the limits of general etymology. There is no special onomastic etymology (Motschenbacher, 2020).

Basic principles and perspectives of the etymological process of proper names.

The etymological process of proper names is based on the following basic principles:

1) detection of the semantic motivation of the onym, in connection with which there is often a need to etymologize the appellation itself
2) clarification of creative appeals;
3) definition of the word-forming type (word-forming model) of the name.

First of all, the interpretation of one's own name should be based on the tradition of comparative-historical linguistics, and also, since it is difficult to name an onymic that would be formed in a monoethnic environment, it is worth taking into account the achievements of the theory of language contacts. Therefore, the second factor requires careful attention from researchers, because it is precisely this that requires a thorough study of the linguistic history of the region in which a certain name is formed. Here it is impossible to do without a comparison of a

specific onym with formally similar ones. So that such a comparison does not turn out to be accidental when comparing genetically unrelated forms that arose during the evolution of these lexemes (purely external), it should be based on the system of phonetic counterparts established by comparative-historical linguistics. However, this principle is not always followed in the circle of linguists and onomasts who are interested in the etymology of onyms, which is reflected accordingly in the scientific conclusions of such studies. In addition, the onymic of a certain region is necessarily influenced by extralinguistic factors (social, natural, historical, etc.), and not only linguistic factors (caused by the very nature of the creative basis of the name). Insufficient attention to the geographical conditions and historical conditions under which the formation of a certain name took place leads to completely incorrect etymology or unfounded etymology. This means that etymological and onomastic research should be complex, based on data from historical sources and material culture, as well as on linguistic facts, and in the case of toponymic vocabulary, on the topographic characteristics of the area, to localize a certain name. Since researchers in many cases take into account only the modern state of onyms and do not pay attention to their linguistic history, this approach will make it possible to avoid extreme positions in the etymology of onym material – the name is only non-Slavic or only Slavic with the admissibility of directly opposite versions. Therefore, the prospects for the development of diachronic studies of onymic vocabulary depend on how consistently the principles of historicism and systematicity in the approach to the interpretation of onymic material will be implemented in them.

Given the fact that onomastics is a multifaceted science, that is, it examines not only names from a historical perspective because if you direct onomastics research only in this direction, it can narrow the research possibilities of onomastics. To prevent this, onomastics in general and academics in particular need to develop other areas besides the etymological aspect of studying proper names, for example, the functional one, which is directly related to onomastic practice – the creation of toponymic derivatives, the spelling of proper names, etc.

For the prospects of academic onomastics, it is important:

1) to constantly stimulate the development of regional onomastic centers to collect onomic material, to assist the organization of expeditions in replenishing the academic onomastic card file, as well as consult local authorities on the functioning of onomic vocabulary;

2) active popularization of the results of one's research on the pages of foreign, local, and central publications, which will provide an opportunity to distinguish scientific onomic etymologies from several pseudoscientific interpretations, which are not unique recently in the world onomastic space (Rabelo, 2020).

Specificity of the onymic space of an artistic work.

Endowed with the proper nominative function, the onymic vocabulary supplies various information to the text (ethnographic, historical, connotative, geographical, etc.), and participates in the modeling of local temporal unity – the chronotope, which is characteristic of a work of art. In addition, it plays a structural-semiotic and constructive role in the formation of the "artistic picture of the world" in the acquirer of the educational space.

The study of the difference between the onomastic space of a literary and artistic work and the onomic space of language seems interesting. If, regardless of the degree of usage, real proper names are facts of language, then as facts of speech, proper names of an artistic text are an imprint of the specificity of artistic speech as a whole, and not only of the national onomastic tradition. Y. Karpenko defines national anthroponymy as "the sum of all real proper names used by the speakers of this language, as well as speech unstable occasional anthroponyms that over time become a fact of the language, supplementing the national noun, or disappear".

Proper names, which function in the text of an artistic work, are a special sphere of onomastic reality, the specificity of which lies in its subjectivity. The onomastics of a literary work do not quite adequately reflect the role of proper names and their position in a person's real life. This is because "the communicative function of the onomastic material in the artistic text turns out to be a "complicated" poetic function, which is brought to the fore here" (Butler et al., 2017).

The specificity of the onym stems from the specificity of the onymic space of artistic work and lies in the difference between literary and real proprial systems. In its specificity, literary onomastics in literary and linguistic aspects

directly collide with the study of an artistic text, because titles and names are components of the writer's style, integral elements of the form of an artistic work, and means that create an artistic image.

The law of three correspondences is the most important in onomastics:

‒ the author's concept, which is manifested – with the entire artistic work, in the sound, and etymology of names, in their combination, contrast, or agreement with each other at the level of onomastics in nouns;
‒ the anthropocentrism of the text, which is manifested in all components of the silent space of the work, in particular the artistic locus, which defines the topos of each character, the spatial dominant;
‒ the truth of realities and historical truth, on which literary onomastics is based (Hohulenko, 2021).

The study of any linguistic reality intended for its description begins with the development of a specific terminological system. "Onomastics is constantly expanding its sphere of influence, enriching itself, demanding more attention from linguists every year... The state of development of terminology is a kind of indicator that shows the development of this discipline". Considering this, the study of biblical onomathemes should begin with the selection of a terminological and linguistic toolkit, which systematizes the selected material, giving it scientific expediency and semantic sophistication. The establishment of terminological systems, their unification, standardization, normalization, and ordering relate to this nationwide process, important factors. The level of development of the terminology of any science indicates the level of science itself. Therefore, the process of term formation is important in onomastic studies..." (Gałkowski, 2022).

A survey of digital methods for the research and presentation of onymic material.

In recent decades, poetic (literary) onomastics, i.e. the study of proper names in literary texts, has become very noticeably active among the onomastic trends. Poetic (literary) onomastics is increasingly becoming the object of close attention of world linguists.

During the entire history of the development of onomastics, the methodology of the study of proper names as a linguistic phenomenon was formed, and there are different approaches to the systematization and analysis of the material. The inclusion of various methodological digital methods in the research toolkit of scientists was actively influenced by: trends in the development of onomastics and the current state of onomastics. The proposed digital methods do not contradict existing traditional techniques and methods but only complement the extensive accumulated experience of researching one's own vocabulary.

Among the classic basic methods, the following are distinguished: general scientific, onomastic, and linguistic. In the field of onomastics, several important tasks need to be solved at the current stage of the digital development of world science. This can be solved by appropriate improvement and updating of onomastic research methods, the main part of which was formed even in the absence of digital technologies. Digital lexicography is very common in the world. A functionally complete lexicographic digital space has already been formed for most of the developed languages of the world.

The modern theory of onomastics interprets the onymic space from the standpoint of the duration of residence or the use of proper names in the representation of representatives of this or that culture. The onymic simple, in the mind of an individual, exists only in fragments and is revealed only with the help of a special study. Onymic space is considered by linguists as a general linguistic category – "absolute (complete) deductive (obligatory for all languages) linguistic universality" (Habibli, 2021) and as a category of language in a certain period of its development.

Important characteristics of names and their criteria. The following characteristics are important for a comprehensive systematization of onyms:

‒ objective thematic or subject classification;
‒ distributive areal or geographical features;
‒ morphological analysis;
‒ statistical typology;
‒ chronological and historical periodization or typology;
‒ connection with the roots and bases of appellative vocabulary in the semantic classification of toponymic facts;
‒ systematization of toponyms, the establishment of etymology, and language affiliation (Karpenko & Neklesova, 2023).

The system of division of proper names contains the following criteria of the onymic vocabulary: time of origin of the onym; initial form; denotative-nominative groups; way of occurrence; origin; etymology of the name; productivity of the word-forming type; method of creation; motivational relations; semantics of the creative basis; field of use; the relationship of onym to language or speech; name form; frequency of use; appointment of onym; name recognition; the scope of the concepts fixed in the title; features of declension; structure; the reality of its existence; biological features of denotation; dimensions of denotation; emotional and expressive features of the name; the number of nominated objects; additional linguistic characteristics of the name; stylistic features of the onym; additional extralingual characteristics of denotation.

Approaching the description of onymic vocabulary in this way, the main blocks are traced:

– nominative;
– functional;
– etymological and word-forming;
– stylistic;
– denotative and qualitative;
– extralingual.

The analysis of proper names gives the process greater coherence and consistency and involves making changes to the scheme, which helps to avoid duplication during the characterization of onyms (Melnyk & Voloshyna, 2022).

Analyzing the modern means of the English language, we conclude that the problem of representing one's own foreign language names in a literary text is relevant, because the onomasticon reproduces the historical and cultural features of a certain ethnic group, contains names, and plays a significant role in the structural and content organization of the work (Podhurska, 2021).

When translating proper names, the most effective is the following sequence of actions: – finding out the etymology of the proper name;

– identifying the semantically motivated basis of the name, checking the semantics of the significance of information about the character;
– research of possible translation options, taking into account historically established options;

– selection of the most appropriate respondent;
– agreement with the requirements of language spelling and word formation, translation of the found counterpart;
– analysis and assessment of the level of semantic approximation to the original translation (Petrenko, 2006).

When choosing a respondent, the most important thing is the translator's interpretation of the author's intention, because the translator usually sees the onomasticon of the work when it is correctly explained, as an element of a more global system in which it complements the stylistic, plot-compositional, figurative characteristics of the text.

An experimental study of the importance of using onomastic material in the educational space.

In the experimental study, special attention is paid to the quantitative and qualitative analysis of the results of the use of onomastic material in the educational space.

For the experimental teaching method, exercises were developed aimed at forming practical skills of differentiating onyms and appellatives in students of higher education, successive deepening of onomastic awareness of students of higher education.

The onomastic material involved by us in the educational process of the institution of higher education was used to develop the speech of students of higher education, activating the cognitive activity of students, specifying and illustrating the main program provisions, systematizing and consolidating the learned material, as well as checking the awareness and strength of learning the material, making connections educational process with the life of each future specialist, diversification of independent work during life, etc.

The proposed content components of the onomastic work determined the variety of techniques and methods of its implementation.

At the stage of acquiring knowledge, preference was given to the use of the teacher's oral presentation of the material, new digital methods, explanation, problem method, story, heuristic conversation with students, development of linguistic corpora on onomastics using the developed linguistic markup; onotological 3D panoramic tours of the virtual onomastic

museum; creation of a network tool to ensure interaction with the information resources of the "POLYEDR" system.

During the formation of abilities and skills, the method of exercises was used more, and work with a computer, a textbook, and a video dictionary was used – a new method of presenting onymic material; creation of a database for large-scale comprehensive analysis of toponymic systems of regions of the world and processing of onymic information.

Various forms of work were implemented in language classes involving onyms: new digital methods, training oral and written exercises, various types of dictation, digital methods of processing and presentation of onymic material; as a tool for active interaction of specialists in a remote mode, starting virtual laboratories in onomastics, because the tool for active interaction of specialists in a remote mode is a virtual laboratory itself, which enables the research tools of modern onomastics to be correctly presented, synchronized, improved and promising for further use and filling; language games, independent creative works with certain vocabulary groups, etc.

When selecting the material for the classes, special attention was paid to the desire of the students of higher education and ensuring their interest in performing cognitive exercises.

During the experiment, different types of exercises were performed at each lesson: introductory, warning, preliminary, propaedeutic, trial, commented, explanatory, training according to the task, sample, instruction, control, and creative.

In the experimental groups, during the study of the exercises, techniques, and methods of work that activate the student's thinking were combined: synthetic, analytical, and analytical-synthetic. Different types of tasks were offered among the exercises, the content of which was onomastic vocabulary using an innovative method:

– according to usage in a certain situation – developing the ability to choose onomastic vocabulary;
– activation to the content of the onomasticon for the development of attention;
– improvement of skills and knowledge to correctly select words combined with onomastic vocabulary to denote signs and actions;

– forming, when constructing a text, the ability to use onomastic material, combining names according to communicative value and semantics;
– formation of skills to match generic species to onomastic concepts and vice versa;
– by creating texts using various proper names and working on revealing the lexical meaning of the word, identifying creative possibilities in students (that is, toponyms, zoonyms, anthroponyms, biblionyms, and cosmonyms were mainly introduced into the educational process of the institution of higher education).

We developed a hypothesis and received positive confirmation of it as a result of research work: Introduction of onomastic vocabulary selected for communicative and semantic value into the educational space

– will lead to positive and significant changes in the active vocabulary of the student, thanks to which the development of cognitive interest in language learning is ensured;
– will lead to the ability to use the acquired knowledge in practical work;
– will lead to the formation of a rational form of the student's mental activity and will become the basis for the development of speaking skills.

Such results were observed in the experimental group. We also observed an elevated mood in students of the experimental groups; the feelings, and emotions of students and teachers were a single whole, and all efforts were directed to the manifestation of the creative inner capabilities of the individual in language classes.

We were convinced in the process of the formative experiment that it was the emotional and psychological positive atmosphere in the group, the desire of the teacher to encourage students of higher education with various methods of work to creativity using onomastic vocabulary that had an impact: on positive results in learning about the world around them, on the development of the cognitive needs of each student, to improve the quality of students' knowledge.

The conducted experimental research gives grounds for the conclusions that the use of various forms of group work, pair work, etc. in the organization of cognitive educational activities. in combination with: new digital methods, a system of additional targeted

material, explanation, problem method, story, heuristic conversation with students, development of linguistic corpora on onomastics using the developed linguistic markup; onotological 3D panoramic tours of the virtual onomastic museum; created network tool to ensure interaction with information resources; video dictionary – a new method of presenting onymic material; creation of a database for large-scale comprehensive analysis of toponymic systems of world regions and processing of onymic information; digital methods of processing and presentation of onymic material; the launch of virtual onomastics laboratories; language games, independent creative works with certain groups of vocabulary, etc., educates such character qualities that contribute to the ability to replenish one's knowledge independently, stimulates the development of students' cognitive activity, develops their educational opportunities, transfers to new conditions and uses their knowledge in everyday life.

The research was carried out among students who are obtaining a bachelor's degree in the 3rd and 4th years. 64 students of the control group and 71 students of the experimental group took part in the experiment.

A significant increase in the level of cognitive activity among students of the experimental group is shown by the following experimental research data: the third year – by +17%; the fourth year – by +21%, and a significant decrease in the number of students with a low level of activity: the third year – by -31.8%; the fourth year – by -17.6%. At the same time, no significant changes were observed in the control group, but there were still certain shifts in the development of the cognitive activity of student youth since each teacher did everything to activate the vocabulary of students, which is the fundamental basis for their development so that students are active in cognitive activities and studied with interest.

Recommendations for educational space.

Modernity offers the following recommendations for the educational process (Nadutenko, 2021):

– highlighting a separate direction – digital methods of processing and presentation of onymic material;
– as a tool for the active interaction of specialists in remote mode, the initiation of virtual laboratories in onomastics, because

the tool for active interaction of specialists in remote mode is the virtual laboratory itself, which makes it possible for the research tools of modern onomastics to be correctly presented, synchronized, improved and promising for further use and filling ;

– launching a video dictionary as a new method of presenting silent material;
– the creation of a database for large-scale comprehensive analysis of toponymic systems of regions of the world and processing of onymic information. Approbation of the method – the creation of the "Reference database of administrative units". This database represents the main points: district; council; type of settlement; the name of the settlement; a brief description (principles and motives for nominating settlements, ways of creating oiconyms, year of foundation, name variations, etc.)" (Shyrokov, 2017).
– for quickly and effectively finding onyms, forms, and constructions, which is necessary for a researcher of monograms – development of linguistic corpora on onomastics using the developed linguistic markup4
– updating the method of presentation of onomastic material – onotological 3D panoramic tours of the virtual onomastic museum;
– creation of a network tool to ensure interaction with information resources.

Conclusions

The content of onomastics and the onomastic system in the modern language is analyzed; the main principles and perspectives of the etymological process of proper names are highlighted; the specificity of the onymic space of the work of art; a review of digital methods for research and presentation of onymic material was carried out; characteristics of names and their criteria are presented. An experimental study of the importance of using onomastic material in the educational space was conducted, where special attention was paid to the quantitative and qualitative analysis of the results of the use of onomastic material in the educational space. For the experimental teaching method, exercises were developed aimed at forming practical skills of differentiating onyms and appellatives in students of higher education, successive deepening of onomastic awareness of students of higher education.

We developed a hypothesis and received positive confirmation of it as a result of research work.

The conducted experimental research gives grounds for the conclusions that the use of various forms of group work, pair work, etc. in the organization of cognitive educational activities. in combination with: new digital methods, a system of additional targeted material, explanation, problem method, story, heuristic conversation with students, development of linguistic corpora on onomastics using the developed linguistic markup; onotological 3D panoramic tours of the virtual onomastic museum; created network tool to ensure interaction with information resources; video dictionary – a new method of presenting onymic material; creation of a database for large-scale comprehensive analysis of toponymic systems of world regions and processing of onymic information; digital methods of processing and presentation of onymic material; the launch of virtual onomastics laboratories; language games, independent creative works with certain groups of vocabulary, etc., educates such character qualities that contribute to the ability to replenish one's knowledge independently, stimulates the development of students' cognitive activity, develops their educational opportunities, transfers to new conditions and uses their knowledge in everyday life.

One of the effective means that can help the young generation in partially solving the problem of national revival is the use of onomastic material, which has practically inexhaustible educational and educational possibilities. This content of education, as evidenced by the work practice of individual teachers, constantly stimulates the cognitive activity of students, contributes to the development of their ability to use the word, helps to identify and develop potential opportunities, and affects the formation of the personality as a whole.

Onomastic material has a positive effect on the educational and cognitive interest, activity, inner needs, and educational activity of students. The provisions formulated in the article can be used in improving programs, preparing textbooks, developing lecture courses and practical classes for students, and in the practical work of teachers.

To further ensure the availability of acquired knowledge for a wide range of users, the urgency of the problem is determined by the need for further implementation and formation of new digital methods of research on onomastic material for operational comprehensive analysis of toponymic material on a global scale at various chronological sections, etc.

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Human rights protection during armed conflicts: Problem aspects

ЗАХИСТ ПРАВ ЛЮДИНИ ПІД ЧАС ЗБРОЙНИХ КОНФЛІКТІВ: ПРОБЛЕМНІ АСПЕКТИ

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Abstract

The purpose of the article is a comprehensive analysis of problematic aspects of legal responsibility for human rights violations during armed conflicts. To achieve the goal, the following methods were used: systematic, logical and semantic, formal legal, comparative legal, formal logical, formal dogmatic, analysis. The article argues the approach according to which armed conflicts are characterized by a total violation of rights, among which the following fundamental rights are the most violated: the right to life, the right not to be subjected to torture, inhuman treatment, enforced disappearance and the right to a trial. It was concluded that these rights are the "immutable core of human rights" that cannot be violated, the characteristic features of which are: fundamentality, inalienability, inalienability and objective necessity. The development of additional regulatory and institutional guarantees

Анотація

Метою статті є комплексний аналіз механізмів захисту прав людини під час збройних конфліктів та проблемних аспектів притягнення до кримінальної та міжнародної відповідальності за їх порушення. Для досягнення поставленої мети авторами використовувались наступні методи: системний, логіко-семантичний, формально-юридичний, порівняльно-правовий, формально-логічний, формально-догматичний, аналізу. У статті аргументується підхід, згідно якого збройні конфлікти характеризуються тотальним порушенням прав, серед яких найбільш порушуваними є такі фундаментальні права: право на життя, право не піддаватися катуванням, нелюдському поводженню, насильницькому зникненню та право на судовий розгляд. Зроблено висновок про те, що ці права відносяться до «незмінного ядра прав людини», яке не можна порушувати за жодних обставин. Характерними їх рисами є: фундаментальність, невід'ємність, невідчужуваність, об'єктивна необхідність.

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for the protection of these rights and effective ways to bring perpetrators to criminal and international responsibility requires coordinated work of various institutions. Combating and counteracting human rights violations in time of armed conflict requires the united efforts of nations to eradicate aggressive warfare and the use of weapons.

Keywords: human rights, armed conflict, "immutable core of rights", protection of human rights, legal responsibility for human rights violations.

Особливо складно захищати ці права під час збройних конфліктів. Вироблення додаткових нормативних та інституційних гарантій захисту цих прав та відповідно ефективних способів притягнення винних до кримінальної та міжнародної відповідальності потребує злагодженої роботи різних інституцій. У боротьби та протидії порушенням прав людини під час збройних конфліктів потрібні об'єднані зусилля усіх націй та народів, які будуть направленні на викорінення агресивної війни та відповідно застосування зброї. Спільними зусиллями, використовуючи у комплексі різноманітні засоби протидії агресії, можна очікувати позитивні результати.

Ключові слова: права людини, збройний конфлікт, «незмінне ядро прав», захист прав людини, юридична відповідальність за порушення прав людини.

Introduction

As you know, local and interstate conflicts have been commonplace throughout the development of human civilization. Despite the fact that we are now in the 21st century, these negative phenomena continue to plague the world. The most horrific thing is that during such conflicts, people die, infrastructure is destroyed and the environment is devastated.

Aggression is always associated with the violation of human rights. Unfortunately, social progress and the development of humanistic ideas did not improve the situation with the protection of human rights.

Many conflicts of the twentieth and twenty-first centuries, from World War II to the current wars in Ukraine and Israel, have exposed the inability of the developed international human rights mechanisms and the norms of national legal systems to prevent human rights violations, above all, it concerns the right to life, freedom, physical integrity, judicial protection, torture, humiliation of honor and dignity, bullying, etc. occur. And this list can, unfortunately, be continued. The right of the strong continues to operate, generating crimes against civilians on a horrific scale. Therefore, this study is aimed at improving the mechanisms for the protection of human rights during armed conflicts.

Based on the goal, the following tasks can be identified:
analysis of cases of violation of human rights during armed conflicts, primarily of the "immutable core of human rights" - the right to life, not to be subjected to torture, inhumane treatment, enforced disappearance, to judicial protection;
researching the problematic aspects of bringing responsibility for human rights violations within the framework of international and national criminal law.

Theoretical framework or literature review

The problems of human rights protection attracted the attention of ancient Greek philosophers - Alcidamus, Antiphon, Lycophron, who in their works defended the equality of all people, claimed that all people have the same rights, determined by nature. In the era of the Renaissance and the Enlightenment Bentham, G. Grotius, T. Jefferson, J. Locke, P. Montesquieu, J. Rousseau, and B. Spinoza developed the idea of human rights as a sacred imperative. Hugo Grotius, Francisco de Vittoria and Thomas Aquinas made a significant contribution to the development of ideas on the protection of the population during war.

As for the conceptual foundations of cooperation between states in the field of international humanitarian law, this issue has found a special place in the works of: M. Baimuratov, M. Barnett, C. O'Brien, M. Buromensky, V. Butkevych, O. Williams, V. Denisov, M. Clarkson, B. Cornell, M. Kruger, V. Lysyk, J. Moon, V. Repetsky, S. Hedberg, etc. Undoubtedly, those main basic provisions regarding the special protection of children, women, the elderly, the inviolability of sacred places and vital infrastructure as the main humane rules during armed conflict, which are analyzed by the specified scientists in the context of interstate cooperation, formed the basis of this study.

No less important in this context were the studies conducted by scientists in connection with the current armed conflicts. In particular, this concerns the Russian-Ukrainian war, which began in 2014 with hybrid aggression, and in 2024 transformed into a traditional form of war. Accordingly, in connection with the hostilities in Ukraine there have been many recent scientific works by Ukrainian scholars: M. Antonovych (2016), who considers the issue of liability for human rights violations in a hybrid war; K. Gaidey and E. Hryhorenko (2016), who study the interconnectedness of the conditions of armed conflict and human rights; O. Senatorov (2018), who provides a comprehensive analysis of armed conflicts themselves, during which human rights are also affected. However, in the mentioned works of Ukrainian scientists, the emphasis is on the nature of modern conflicts and the problem of prosecution for war crimes, regarding the violations of rights themselves, it is only noted that they take place during the war. A. Bilous and A. Pasternak (2016) analyze the specifics of human rights violations in armed conflict in more detail.

Despite such scientific works of scholars on this issue, given the current situation in the world, the existing armed conflicts in certain regions, which are often modified and have a hybrid nature, there is a need for new research that would help to more thoroughly study the nature of such new phenomena and the ways of their counteraction and prevention, especially taking into account the new trends in prosecution within the framework of international criminal law.

Methodology

The study of the problems of human rights protection during armed conflicts, and the resolution of existing acute and controversial problems in this area with regard to bringing perpetrators to justice require the application of an appropriate methodology.

Accordingly, in the course of the scientific research, the author used a set of general scientific and special research methods. In particular, a systematic analysis of the norms of domestic criminal law and international human rights law in the field of human rights protection during armed conflicts helped to identify specific features of basic human rights that are natural, inalienable and inalienable.

Using the logical-semantic method, the conceptual apparatus was refined and developed. In particular, the concept of the "immutable core of human rights" and its main characteristics were clarified.

The formal legal method was used to analyze the legal content of international and national legal acts in the field of human rights protection during armed conflicts.

The comparative legal method was actively used to analyze the procedures for bringing perpetrators of human rights violations during the war to criminal and international responsibility.

Other methods were also used: formal-logical – for the study of normative and legal material, in particular the provisions of the Criminal Code of Ukraine and the Geneva Conventions and their protocols. The use of this method made it possible to reveal the imperfections of the norms of criminal and international humanitarian law in the field of human rights protection during war; formal-dogmatic – for the interpretation of provisions of domestic criminal legislation, international agreements, resolutions of international organizations, decisions of international military tribunals and courts in order to revise the basic rules and principles of responsibility for human rights violations during war. Turning to this method made it possible to better understand the benefits of international criminal justice in the context of this study; analysis - for the study of scientific theories, approaches of specialists in the field of human rights protection, which made it possible to formulate conclusions and recommendations regarding the improvement of the national and international rights protection mechanism.

The combination of such methods of legal research made it possible to implement a systematic, comprehensive approach to understanding the problematic aspects that arise when human rights are violated in conditions of war.

Results and discussion

PROBLEMATIC ASPECTS OF HUMAN RIGHTS DURING ARMED CONFLICTS. "THE UNCHANGING CORE OF HUMAN RIGHTS"

As already emphasized, unfortunately, armed conflicts have been, are, and probably will be a part of human existence for some time to come. Among the most recent ones are the large-scale Russian invasion of Ukraine in 2022, the conflict in Sudan in 2023, and the Hamas invasion of Israel in late 2023. In all these armed conflicts, there are total human rights violations, especially against civilians. The use of various types of weapons, the abuse of prisoners and civilians in the occupied territories, the destruction of vital infrastructure, and other barbarities that occur during war are not a complete list of the negative consequences of armed confrontation. Clearly, these criminal acts of the military have no justification and

must be severely punished. First and foremost, this concerns responsibility for violations of those rights that can be considered the "unchanging core of human rights": the right to life, the right not to be subjected to torture, inhuman treatment, enforced disappearance, and the right to a trial. Why are these rights so important and constitute the "immutable core of human rights"? It should be recognized that all these rights are inherent in human nature. In particular, it is inconceivable that a person would not be endowed with the right to life, which is the fundamental basis for all other rights. No one has the right to infringe on or deprive of life. An extension of this right is the right not to be subjected to torture, cruel and inhuman treatment or enforced disappearance. Every person is a free and inviolable person, and therefore should not be subjected to any physical or psychological influence if it is contrary to his or her health and mental state. People cannot be kidnapped, held in a state of slavery or restricted in their freedom. And, of course, in case of violation of any rights, a person has the right to their protection. Given the significance, importance, and objective conditionality of such rights, it can be argued that these rights are the core of the human rights system and should be protected to the maximum extent possible. A modern person cannot exist without such rights. Given this nature of these rights, it can be argued that the main characteristics of such rights are: fundamental, inalienable, inalienable and objective necessity.

What are the ways to protect such rights? First of all, it should be noted that such rights are extremely difficult to ensure during wartime. This also applies to their protection. At the same time, victims of violations should be aware that they can seek protection of their rights from both national and international institutions. It is known that such mechanisms in both cases include normative and institutional guarantees. In general, normative guarantees are related to the standards enshrined in international humanitarian law. They are identical at both the national and international levels. After all, almost all democratic states have now implemented most of the humanitarian law conventions into national law. For example, (Code No. 2341-III, 2001), Art. 438, contains a number of articles that provide for criminal liability for ill-treatment of prisoners of war or civilians, expulsion of civilians for forced labor, looting of national property in the occupied territory, use of means of warfare prohibited by international law, use of weapons of mass destruction, other violations of the laws and customs of war aimed at mass murder, torture, rape, restriction of liberty, etc. Similar provisions are contained in the criminal laws of other countries.

At the same time, the protection of rights in the context of armed conflicts raises many questions, and quite often it is difficult or impossible to resolve them through national jurisdiction. That is why international mechanisms for the protection of rights are used.

International law also has normative and institutional guarantees. However, before applying for protection, it is necessary to understand the following questions: what is the nature of the armed conflict - international or non-international and who are the parties to the confrontation (certain groups, organizations or states). Answers to such questions will allow us to correctly determine which mechanisms will be more effective and adequate in a given situation. For example, in the case of a non-international armed conflict, it is obvious that the first step is to turn to the domestic justice system. In the case of interstate conflicts, it will be more effective to apply to international judicial institutions. In this case, the circle of subjects of responsibility is expanded at the expense of states. There is also another important point in the framework of international criminal justice: in the case of prosecution of the top leadership of the state, their immunities will not be taken into account, which will contribute to a faster procedure and the inability of the perpetrators to avoid responsibility. In this aspect, prosecution for human rights violations during the war in international law looks more effective and complete than it does within the framework of national jurisdiction. However, both in the first case and the second, there are many problems that need to be addressed in order to maximize the principle of inevitability of criminal punishment for human rights violations committed during armed conflict and restore justice. Therefore, we propose to focus on certain aspects of the protection of rights included in the "immutable core of human rights".

Protection of the right to life during armed conflict

The right to life is now enshrined in many universal and regional international acts and in the constitutions of foreign countries. However, despite this, it is extremely difficult to save a person's life during armed conflicts. After all, any armed conflict is a threat and danger to life. The use of various means of warfare, their constant updating due to the intensive development of science and technology, and the increase in military capabilities in general, in practice, make it increasingly difficult to ensure this right. In general, the concepts of "war" and "right to life" are mutually exclusive. According to the laws and customs of war, a combatant of one belligerent party has the right to kill a combatant of the enemy party. In fact, on the one hand, everything in war is contrary to the concept of humanity, and on the other hand, everything calls for the preservation of humanity, and therefore the task of the law of war is, first of all, to reconcile these extremes.

It seems extremely difficult to guarantee or ensure the right to life in the context of the use of various types of weapons. In such circumstances, the rules of international humanitarian law (IHL) apply, some of which are aimed at ensuring the right to life. It is important to understand that IHL rules designed to protect human life adapt this protection to the special conditions and circumstances of war. The rules of treatment of the civilian population, which cannot be the object of attack, physical destruction, murder is prohibited, and provisions are made for relief operations and funds necessary for the survival of the civilian population (United Nations, 1977a), articles 67-71. It is prohibited to destroy objects that are essential for the survival of the civilian population (United Nations, 1977a), article 54, (United Nations, 1977b), article 14.

A fairly progressive provision is provided for in Article 101 of the United Nations Refugee Agency (1949) - the death penalty may be carried out only after 6 months of the sentence. However, in terms of protection, perhaps, prisoners of war are the most vulnerable, from ancient times to the present, and they have always been subject to the most brutal reprisals (Repetskyi & Lysyk, 2007). For example, during World War II, Soviet prisoners of war were subjected to torture, torture, and executions (Mazurok, 2008).

Despite such unfortunate historical examples, we still believe that the conventions that humanity has developed (and will develop) are an important step in establishing humane guidelines for the treatment of prisoners of war. In general, the dynamics of international law are positive. The human-centered movement proclaimed in the last century is gaining momentum. The human being is recognized as the greatest social value. States are obliged to serve their people and provide adequate protection. The international community is not standing aside either. A citizen can now complain against the state. Relevant international mechanisms have been created for this purpose, and accordingly, a large number of conventions on the protection of human rights have been adopted, some of which contain special provisions that create essential conditions for the protection of the human right to life. In particular, (Council of Europe, 1950) article 2, provides: "No one shall be deprived of his life intentionally except in pursuance of a judgment rendered after he has been convicted of a crime for which such punishment is prescribed by law."

Instead, there are no norms aimed at protecting the lives of combatants involved in hostilities. However, according to Doswald-Beck, L. & Vite, S (1993), there are certain rules that prohibit the use of weapons that cause excessive damage, which leads to a reduction in the loss of life of military personnel, so it

is probably incorrect to say that IHL does not contain any rules on this issue.

Prohibition of torture and inhuman treatment during armed conflicts

Along with the right to life, the so-called "immutable core of human rights" includes the prohibition of torture and inhumane treatment, which, above all, degrades human honor and dignity. This right is enshrined in a number of universal (United Nations, 1966) article 7 and regional international acts (Council of Europe, 1950) article 3, in the field of human rights protection, as well as in the norms of IHL. It is important to understand that the term "torture" is a more specific concept than "torture". Torture in most cases is the use of physical violence against a person, which is associated with the infliction of physical suffering in general. Torture should be understood as an act that inflicts severe pain or suffering (may be both physical and mental) on a person in order to obtain a confession or information from him or her or a third party, or to bring that person or a third party to justice, or to intimidate or discriminate against that person (United Nations, 1984), articles 1-3.

The use of torture and inhumane treatment against human beings in general are serious violations for which the perpetrators must be held accountable under national criminal law. To this end, participating States should implement the necessary provisions in their national legislation and provide for serious sanctions for these war crimes. The legislation of a number of states, for example, Belgium, Canada, Denmark, Finland, Norway, Spain, Sweden and Finland, provides for the suppression of acts that qualify as serious violations of the four Geneva Conventions and Additional Protocol I, regardless of whether they are committed during international or internal armed conflict.

Regarding the issue of stopping such violations, it should be noted that the International Criminal Tribunal for Rwanda (Article 4, paragraphs A and E) and the Special Court for Sierra Leone (Article 3, paragraphs A and E) have provisions in their statutes for considering cases related to serious violations of humanitarian law committed during non-international armed conflict. Similar provisions are contained in the Rome Statute of the International Criminal Court (International Criminal Court, 2021), article 7.

The European Court of Human Rights is now actively involved in the implementation of international norms prohibiting torture and ill-treatment, which in its judgments states that inhuman treatment occurs when it causes severe physical and mental suffering that can lead to acute mental disorders, and inhuman punishment is a kind of violence that causes a special

level of suffering. Degrading treatment is behavior that causes feelings of fear, depression or inferiority, which can not only offend or humiliate a person, but also break down their physical or moral resistance. As for punishment, it must be different from the usual nature of humiliation that is inherent in every punishment. This feature of punishment is well demonstrated by the case of the punishment of a boy (15 years old) in the case of Tyrer v. United Kingdom. For unlawfully assaulting another boy, three police officers forced the child to take off his pants to receive a caning. This happened in the presence of police officers and bystanders (Van Buren, 2006). The court, having examined all the circumstances of the case, concluded that the boy was in a state of humiliation both in relation to other strangers and in his own eyes, which, given the child's age, could affect his mental health, and therefore the court recognized such punishment as degrading to the child's honor and dignity.

Protection from enforced disappearances

Enforced disappearances are a violation of international human rights law, and in times of war, they are also a violation of international humanitarian law. Enforced disappearances are tantamount to erasing the very fact of human existence. Disappearances also have profound and long-term psychological consequences for their families. The prohibition of enforced disappearances, like any other rule of humanitarian law, does not tolerate exceptions. No war, no emergency, no threat to national security can justify enforced disappearances.

The European Court of Human Rights has developed extensive practice in the so-called "Chechen cases". Thus, according to the ECHR's decision in the cases of the disappearance of Aslanbek Khamidov and the murder of Kazbek Taisumov in 2000 and 2002, the Russian Federation was obliged to pay compensation to the plaintiffs in the amount of 104,000 euros. In particular, Khamidov's relatives told the ECtHR that they had seen him for the last time in October 2000, when armed men in camouflage took him out of the house to check his documents. The victims in the second case said that their relative Taisumov, his wife and their eldest daughter were killed on September 7, 2002, during an artillery shelling. The court ruled that Russia had violated a number of articles of the Convention for the Protection of Human Rights and Fundamental Freedoms and ordered Russia to pay compensation to the applicants. An important step in combating and countering enforced disappearances was the adoption by the UN General Assembly on December 20, 2006 of the United Nations (2006) Articles 1-7.

Protection of the right to a trial

As is well known, for more effective protection of human rights under any conditions or circumstances, judicial guarantees must be provided and guaranteed. And although they are not included in the so-called "immutable core of human rights" in most international instruments, they cannot be deviated from. The situation is particularly complicated when it comes to the observance of such guarantees in the context of military operations.

The United Nations Refugee Agency (1949) Article 3, and the Additional Protocol to the Geneva Conventions, relating to the Protection of Victims of International Armed Conflicts (Protocol I) Article 75, (United Nations, 1977a) recognize most of the guarantees of due process of law for persons accused of committing a criminal offense during armed conflict. Moreover, derogation from such guarantees is prohibited. Among such guarantees are the following: the right to a public trial; the avoidance of any delay; the principle of equality and competitiveness in the presentation and examination of witnesses' testimony. These guarantees are universally recognized. It should also be considered positive that these guarantees are provided, firstly, for both international and non-international armed conflicts, and, secondly, for certain cases and situations concerning certain categories of persons (prisoners of war, interned persons, women, children) additional guarantees are provided.

In accordance with the provisions of international instruments, the right to a fair trial is enshrined in a number of instructions of the armed forces of foreign countries. The refusal to grant such a right in the special conditions of armed conflict or its restriction under the criminal law of a number of countries is grounds for criminal liability. In addition, this right is guaranteed by the statutes of international judicial institutions, in particular, the statutes of the Tribunals for the former Yugoslavia and Rwanda, the statute of the Special Court for Sierra Leone, and the ICC statute. It is noteworthy that this practice is supported by a number of regional human rights bodies.

In the event of an armed conflict of an international nature, serious violations of international humanitarian law are: intentional deprivation of a prisoner of war or a civilian under protection of the right to an impartial and normal trial as provided for by the relevant Convention (Article 130 of Geneva Convention III, Art. 147 of Geneva Convention IV); intentional deprivation of a person protected by the Geneva Conventions or the Protocol Additional to the Geneva Conventions and Relating to the Protection of Victims of International Armed Conflicts of the right to an impartial and normal trial in violation of the

Conventions or the Protocol (Article 85(4)(e), Additional Protocol I).

LIABILITY FOR HUMAN RIGHTS VIOLATIONS UNDER NATIONAL CRIMINAL LAW: MAIN ISSUES

As aptly emphasized in the legal literature, "Human Rights do not lose their relevance during war" (Kuchyk et al., 2023), but it is extremely difficult to ensure their protection and prosecution, as the first problem is the loss of evidence or improper collection and processing of evidence.

Equally problematic is the protection and, accordingly, prosecution when human rights violations occur in the occupied territories, where the occupying authorities not only ignore human rights violations but commit them themselves. According to the testimonies of citizens of various regions who were in the zone of armed conflicts, during the occupation there were mass shootings of the civilian population without trial and investigation, people were tortured in basements, girls and women were abused and raped, many citizens disappeared. Undoubtedly, in such circumstances, going to court and having a fair trial was out of the question. After the liberation of such territories, as a rule, law enforcement officers faced numerous problems. Most troublingly, most of the evidence was destroyed. It is obvious that, under any circumstances, it significantly complicates the investigation of criminal cases of human rights violations during the war and, accordingly, bringing the guilty parties to justice. Such problems slow down the process of bringing to justice military personnel who were captured, or even those who will be prosecuted in the future after the war under open criminal proceedings. Similar problems are always inherent during war for any state where an armed conflict took place.

Thus, given these difficulties, it can be argued that the implementation of the principle of inevitability of criminal punishment for a crime committed for human rights violations that occurred during an armed conflict causes many difficulties. Therefore, it forces the victim state to resort to other means and instruments of protection, including international ones.

RESPONSIBILITY FOR HUMAN RIGHTS VIOLATIONS UNDER INTERNATIONAL LAW: THE MAIN PROBLEMS

It would seem that international law, which provides for a peremptory norm prohibiting aggressive war, instead of standing for the protection of human rights, should be more effective. However, there are no fewer problems here.

The first problem is the length of time it takes to process cases. Wherever a victim state applies, it has to wait for a decision for a long time. Secondly, political ambitions and pragmatic interests of certain subjects of international law sometimes prevent the reflection of real threats and challenges to human rights in wartime, which distorts the picture of real human rights violations. Thirdly, there is no certainty that the decisions of international judicial institutions will be enforced by the violator. In particular, if we take as an example the decision of the International Court of Justice of the United Nations, then the outdated mechanism of enforcement of the decision through the procedures of the UN Security Council may become an obstacle in this case. If the state is supposed to be a permanent member of the Security Council, then it is clear that all initiatives of this body will be blocked due to the applicable right of veto.

However, there are also some positive aspects when it comes to liability under international law. First of all, the specifics of international law should be taken into account: while under national criminal law, the subject of a crime will be a sane individual who has reached the age of criminal responsibility, in international law, the circle of subjects of responsibility, in addition to individuals, includes the state, which will materially compensate for the damage caused by the outbreak of an armed conflict. Another point should be understood here: responsibility for human rights violations during the war will be borne by the state within the framework of the institution of international legal responsibility, and by individuals within the framework of international criminal and humanitarian law. Another advantage of liability under international law is that in the case of prosecution of senior officials, who usually enjoy immunities, the latter will not be taken into account. In national law, on the contrary, immunities will exempt from liability. For example, in order to bring a president to justice, his immunity must be removed by impeachment and then tried. In this regard, international criminal law looks more effective and progressive than national criminal law.

Taking into account such positive aspects of the modern international system of human rights protection, we can conclude that one of the modern trends in the field of punishment for international crimes, the direct object of which is international order, human security and human rights, is the development and improvement of the mechanisms of international criminal of justice.

Despite the numerous difficulties in initiating and considering such cases at the International Criminal Court (long duration, difficulty in obtaining and securing evidence, problems in presenting suspicion, issuing arrest warrants, arrest and delivery of suspects, etc.), the process of signing and ratification by states of the Rome Statute of the Statute of the International Criminal Court is moving forward. There is a growing understanding that it is precisely such bodies of justice that are more adequate in bringing to justice the highest bodies of guilty states compared to national criminal justice. Moreover, the prosecution of the top leadership of the state for international crimes serves as an impetus for more fruitful work by law enforcement agencies within the framework of national jurisdictions in relation to the executors of the orders of such leadership.

And I would also like to emphasize another aspect: why is it necessary to bring perpetrators to justice for total violations of human rights during the war? It is extremely important to maximize the principle of inevitability of punishment for human rights violations during the war, as people, both civilians and military, are in a difficult psychological state and feel justice very keenly and unconditionally want to find it in justice. Many studies have noted that people who have participated in hostilities tend to be in a bad mood, irritability, apathy, depression, anxiety (Krasnodemska et al., 2023) and often feel guilty for their dead comrades. Therefore, punishment of the perpetrators will have not only legal consequences, but also other social effects on the society that suffered rights violations during the war, which will help to gradually restore the psychological climate in such an environment.

Conclusions

On the basis of the conducted research, the following conclusions can be drawn:

in view of the current situation in the world, the issues of protection of human rights during armed conflicts are extremely acute and urgent. The recent armed conflicts in Ukraine and Israel demonstrate that violations of the right to life, the prohibition of torture and inhuman treatment, the right not to be subjected to enforced disappearance and the right to a trial, which constitute the "immutable core of human rights" remain unchanged;

the specificity of the "immutable core of human rights" is that they should not be limited under any conditions and circumstances, and the guarantees of such rights in cases of armed conflicts should be especially carefully prescribed. However, based on the existing practice, it becomes obvious that violations of these rights have occurred and continue to occur, which forces the affected citizens or their relatives to apply

for the protection of their rights not only to national courts, but also to international ones, primarily to the European Court of Human Rights. Undoubtedly, it must be taken into account that any conflict is already a threat, a danger to human rights, first of all, the right to life, and therefore the first thing that needs to be done in this case is the consolidation of efforts to create a reliable and effective mechanism for countering the emergence of armed conflicts confrontations in international practice, namely: the establishment of a strict sanctions regime against the aggressor state with the aim of its total isolation in international relations - exclusion from the composition of international organizations, bodies and institutions, termination of all contractual relations, prohibition of free movement of citizens of the offending state around the world, prosecution of the guilty;

development of effective regulatory and institutional guarantees for the protection of human rights that are violated in conditions of war, as well as an effective prosecution mechanism, both at the level of the national criminal law of foreign countries and on the basis of the norms of international criminal and humanitarian law at the international level, requires coordinated work of various institutions, organizations and bodies of all nations and peoples without exception. The UN is currently acting as such a universal mechanism, the main purpose of which is to ensure international peace and security. It is under its auspices that the most fruitful and effective cooperation of states in the fight against and countering the violation of human rights, the eradication of aggressive war, and the use of weapons in the resolution of conflicts should take place. In this aspect, the UN should strengthen its activities regarding the introduction of a total ban on nuclear weapons. We also draw attention to the fact that in view of the consideration of the situation regarding the Russian-Ukrainian war within the framework of the UN Security Council and the rejection of any resolution on this issue due to the exercise of the right of "veto" by the Russian representative, there is a need to revise the UN Charter. In particular, this concerns primarily the activities of the UN Security Council: exclusion from the UN Security Council of the aggressor state; deprivation of the right to vote of a member of the Security Council if such a member is a party to the situation that became the subject of consideration at a meeting of the UN Security Council. Finally, we emphasize that another important point for the cooperation of states in the field of human rights protection at the international level is to encourage states to join the Rome Statute of the International Criminal Court.

Therefore, we have high hopes that joint efforts with the combined use of such means of countering aggression can lead to positive results, which will make it impossible to violate human rights.

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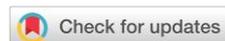
The VI Century eastern roman empire: Steppe allies, western turks, and herat war

Східна Римська імперія VI століття: степові союзники, західні турки та Гератська війна

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Abstract

The subject of the Herat War and the Ctesiphon Peace Treaty of 591 is relevant since it reveals important aspects of the political, economic and military history. These events had a significant impact on the fates of the Byzantine Empire, the Persian Empire, and the Chinese Khaganate. The study of these events provides a more comprehensive understanding of the complex interrelationships and dynamics of Eastern politics. The academic paper also attempts to summarize the facts on the history of the "Herat War" of 589 from the standpoint of geopolitical analysis. This study involves analyzing historical sources including chronicles and archaeological data to reconstruct events and assess their consequences. The interpretation and analysis of documents and written sources of the time is also an important aspect in order to understand the motives and strategies of the parties involved in the events.

Keywords: Eastern Roman Empire, foederati, Battle of Herat, Turkic Khaganate, Ctesiphon Peace Treaty.

Анотація

Тема Гератської війни та Ктесифонського мирного договору 591 р. є актуальною, оскільки розкриває важливі аспекти політичної, економічної та військової історії. Ці події мали значний вплив на долі Візантійської імперії, Перської імперії та Китайського каганату. Вивчення цих подій дає змогу глибше зрозуміти складні взаємозв'язки та динаміку східної політики. У науковій статті також зроблено спробу узагальнити факти з історії "гератської війни" 589 року з точки зору геополітичного аналізу. Це дослідження передбачає аналіз історичних джерел, включаючи хроніки та археологічні дані, для реконструкції подій та оцінки їх наслідків. Інтерпретація та аналіз документів і письмових джерел того часу також є важливим аспектом для розуміння мотивів і стратегій сторін, причетних до подій.

Ключові слова: Східна Римська імперія, федерати, битва при Гераті, Тюркський каганат, Ктесифонський мирний договір.

Introduction

The events of 589 remain a mysterious episode of world diplomatic history. In fact, in the summer of 589, the first serious attempt to liquidate the Persian statehood of the Sassanid dynasty took place. The protagonists of this attempt were the outstanding generals Yang-Soukh-tegin and Bahram Chubin. The former, being the youngest son of the Turkic yabgu Kara-Churin-Turk, headed the Bukhara Khanate (Narshakhi, 1897). The second led Persian contingents in a changeable campaign against the Byzantines in the lands of Azerbaijan and Miedia (Frendo, 1986). While holding the position of spahbad, during the 580s Bahram Chubin sluggishly opposed the Eastern Roman (Byzantine) contingents of Mauritius, who became emperor in 582. Having failed to show the proper zeal for the attack, Bahram Chubin,

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however, was memorable to the incumbent Persian emperor Ormizd Türkzadeh (579-590) as a talented organizer of defenses (Ferdowsi, 1989). The Iranian-Byzantine War (572-591) (Frendo, 1986), which lasted nineteen years, allowed the Eastern Roman army to approach the Iranian Plateau for the first time. In particular, the hostilities were taking place in Midia in 580-585 (Frendo, 1986). Byzantines came to the shores of the Caspian Sea, but adhering to the tactics of scorched earth, failed to win the proper favor of the local Zoroastrian population (Menander Protector, 1985). However, the strategic control over the Caspian Sea and the Derbent passage allowed the successful commander and judicious Emperor Mauritius (582-602) to strengthen the ties of official Constantinople with Sabirs, Khozars, Alans (Ossetians), Lazs and Iberians (Georgians). The western horde of the Turkic Khaganate, controlled by Yabg Kara-Churin-Turk, which had previously been in conflict with the Azov and Crimean cities of Byzantium (in 576-581) (Moravcsik, 1958), now also sought good relations with Mauritius.

Literature review

Having examined the literature, it can be noted that Khairedinova and Shalyga in 2017 investigated Crimean Goths from the country of Dori from the middle of the III to VII century AD. Asoev (2016) investigated the role of Chinese sources when studying the political and religious history of Takharistan. Ayubov (2017) focused on the features of the evolution of Sogdian-Turkic relations in the early Middle Ages. Baratova (2004) studied the interaction of Byzantium, Sogdiana and the Türks on Central Asian coins. Braychevsky (2009) investigated the interaction of the Khazars. In 2017, he also examined the policies of the Muqan and Taspar (i.e.) Hagans in the Turkic Empire (553-581 AD). Gumilev studied different aspects of the history of the Turkic peoples and their wars in 1960, 1961 and 1962. In 2018. In 2016, Dossimbaeva reconstructed the history of the Turks in the context of sources on material and spiritual culture. The chosen fragments from the Anonymous Syriac Chronicle of 1234 AD were translated by N. Pigulevsky; they are contained in the collection "*Byzantium and Iran at the Turn of the VI and VII Centuries*". In 2018, Kalan studied the medieval Great Silk Road as the main trade route connecting Eastern Europe and Asia. In 2001, Klashtorny analyzed Central Eurasia in the early Middle Ages, etc.

Methodology

Introduction: The research outlined the historical background and the emergence of a potential reconciliation between the Turks in 588. The work explains the key defeat of the Persians against the Byzantine forces at Martyropolis in 588, which was the catalyst for improved relations between Mauritius and Kara-Churin. This explains the end of open civil strife in Central Asia and the subsequent restoration of a strong military and political alliance between Kara-Churin and the Eastern Roman Empire.

Research Design: The research design for this study includes a comprehensive approach to the study of historical events related to the reconciliation of the Turks and their alliance with the Eastern Roman Empire. The main objective is to analyze the factors that led to the reconciliation between the Turks and the Eastern Roman Empire, focusing on the events from 588 to 591. The study will provide a detailed analysis of the political, military, and economic circumstances prevailing in the region at the end of the 6th century, including the dynamics of relations between the Turks, the Eastern Roman Empire and other regional powers.

Data Collection: In order to carry out the study, a compilation of historical sources, both primary and secondary, was conducted to comprehend the events pertaining to the reconciliation of the Turks and their alliance with the Eastern Roman Empire. Research includes evaluating the reliability of sources, cross-referencing information, and examining archaeological evidence to supplement textual records.

Data Analysis: This study uses historical, critical, and comparative methods to interpret and analyze documents and written sources. Historical methods involve studying primary sources such as historical documents, chronicles, and inscriptions to reconstruct events and understand their context. Critical methods are used to assess the reliability, bias, and credibility of these sources, providing a rigorous evaluation of the evidence. Comparative methods allow you to compare different sources, perspectives, and interpretations to gain a deeper understanding of events and their consequences. Applying these approaches, the research aims to provide a comprehensive and detailed analysis of the studied historical events, highlighting their significance and consequences.

Ethical considerations: During the study of historical events depicted in the text, several

ethical considerations arise. Given the complexity of the political and military maneuvers described, it is necessary to ensure the accuracy of the analysis and refrain from distorting the facts to fit certain narratives. In addition, the study delves into the delicate historical contexts surrounding diplomatic negotiations, military campaigns, and power struggles between different actors. Hence, exercising caution and delicacy in addressing such subjects ensured consideration for the diverse perspectives and cultural nuances of the given era. The text also discusses the involvement of various ethnic and cultural groups, such as Turks, Persians, Byzantines, and Chinese. Cultural sensitivity was observed when analyzing these interactions, and steps were taken to prevent the perpetuation of stereotypes or prejudices.

Validity Considerations: The validity considerations in this historical narrative entail scrutinizing the reliability and authenticity of the sources cited, ensuring consistency and coherence within the accounts provided, contextualizing events within their historical context, employing robust analytical methods, and assessing the plausibility of proposed causal relationships. These elements are crucial for establishing the accuracy and credibility of the historical analysis presented.

Limitations and Strengths: In assessing the reliability of this historical study, several considerations emerge from the text. The strength of this study is the wide use of various sources, which provides a multifaceted study of the Eastern Roman Empire of the 6th century. However, there are certain limitations arising from inherent biases present in the historical records used, potential archival biases, and differences in data quality. Reliance on translated texts and interpretations creates the possibility of distorting or misrepresenting the information used in the research.

"Foederati" and "vassals": steppe allies of Byzantium and China

As early as 584, Mauritius signed a treaty with the Slavic Avars to confirm the federate status of the Avar Khaganate (558-805) (Melnyk, 2020c). Similar to Justinian the Great (527–565) (Menander Protector, 1985), Mauritius acknowledged the Avar Kagan as his legitimate subject and committed to upholding the Avar elite, who promised to support the Eastern Roman Empire with their forces. The federative treaty could indeed be considered a political

victory for Constantinople, if it were not for the predatory approach of the Avar elite. On the one hand, the Avars undertook to fight against the enemies of the Empire, but, on the other hand, the same Avars constantly terrorized the Roman provinces neighboring Pannonia, fighting predominantly Slavic hands (Heather, 2013). The policy of robbery and plunder seemed to Avar leaders the only way to keep the integrity of their Khaganate. After all, the Slavs, Germans and small Turkic-Mongolian cohorts, which were part of the Avar chiefdom, could act as a single entity only for the capture of spoils of war or for the sake of receiving a ransom for non-aggression (Sobestyansky, 1892).

The agreement of 584 stopped the large-scale war of the Byzantine Danubian army with the Slavo-Avars, but did not stop individual robbery forays from Pannonia. The federate position of the Slavo-Avars became a legal fiction that allowed Kagan Bayan (558/562-602) to withdraw allowances and precious gifts from the imperial treasury. Despite the instability of Byzantine relations with the Pannonian Khaganate, the elite of the Western Turkic horde considered any agreements between Constantinople and the Avars as a manifestation of duplicity and intrigue (Menander Protector, 1985: Fr. 45). The coordination of general military actions against Persia was postponed by Kara-Churin until the solution of the Avar issue and until the end of the turmoil within the Turkic possessions.

The civil war in the Turkic Khaganate covered almost the entire reign of Kagan Baga-Yshbar Khan (581-587) (Skaff, 2018: 390). In 584-587, the strife between Baga-Yshbar and Apa Khan, provoked by Sui China, broke out. Baga-Yshbara Khan recognized the suzerainty of China in order to defeat his personal enemy and for the sake of preserving the integrity of the Khaganat. The Turkic khagan had to pronounce corresponding oaths of loyalty in 584, 586 and 587 (Skaff, 2018: 390). This ensured his victory over Apa Khan's rebels in the battle of Bukhara, but did not save him from death in the Chinese steppes.

Following Baga-Ishbar, the suzerainty of the Sui emperor Wen-Di (581-604) was also recognized by the West Turkic yabgu Kara-Churin-Turk (in 586). Kara-Churin managed to rule in the West Turkic horde as an all-powerful and independent leader due to the recognized vassalage, not relying on the statements of the main Altaic stakes. In particular, the son of Kara-Churin named Yang-Soukh-tegin received the position

of the khan of Bukhara and the ruler of Paikend (Narshakhi, 1897: 13).

The power of Kara-Churin extended from the estuary of the Dnieper (modern Ukraine) (Braychevsky, 2009; Tishin, 2020) to the Khotan oasis (modern China) (Taşağil, 2007: 242-248). All of Sogdiana belonged to Yabg, and the richest Bukhara oasis became the inheritance of his son (Skaff, 2002: 364-372). In Trans-Volga Eastern Europe and the Caucasus, the tribes of Byzantine foederati – Bulgars, Khozars, Ostgoths, Alans, Georgians, Sabirs, etc. – were subordinate to Yabg Kara-Churin. In the Caspian region, the main military and political force of Kara-Churin was composed of Oguzes, who controlled the Volga delta and vast steppes of modern Kazakhstan (Bartold, 1964). The ethnically and religiously diverse population of Khorezm and the whole of Central Asia served as a tax base for the Kara-Churin government (Klyashtorny, 2001: 92-93). The agreement of Kara-Churin with Wen-Di in 586 formally meant the recognition of the rule of the Chinese Sui dynasty by the listed tribes. However, all the Eastern European and Caucasian tribes had federal treaties with the Eastern Roman Empire by 586, which were repeatedly confirmed in addition.

Sabirs, Crimean Ostgoths, Georgians, and Alans are known to have often assisted Byzantium with military contingents. The most vivid example is the Iranian-Byzantine war of 572-591. The tactical successes of Mauritius in 582-585 helped him establish the closest cooperation with the Christian North Caucasian peoples. Along with the Armenian militia, Georgian units participated in the Byzantine occupation of the lands of Azerbaijan (Frendo, 1986: III. 17.4) (as the territories belonging to the modern Republic of Azerbaijan and the present-day Azerbaijani provinces of the Islamic Republic of Iran). The activities of the Iberian archon Guaram Bagratid (572-602) were of great importance for Mauritius. By declaring himself king of Georgia, Guaram recognized the suzerainty of the Eastern Roman Empire (Suny, 1994: 23-25). His rear support helped Constantinople to carry out the occupation of a large number of Iranian territories in the early 580s.

According to the viewpoint of Gumilev, in 588 Guaram Bagratid turned out to be an intermediary between Emperor Mauritius and Yabgu Kara-Churin-Turk. A corresponding new round of Turkic-Byzantine negotiations became possible after the end of the Turkic civil war of 584-587.

The China-based orientation of Baga-Ishbar Khan (581-587), the rapid death of Cholla-Jabgu-Baga Khan (587-588) caused a deep need to restore the balance in the Turkic Khaganate. The function of reconciliation was assumed by the new kagan Yun-Ulug (588-599). Since his accession, Kagan has been actively engaged in opposing the Sinophiles' party, and has supported any anti-China or alternative pro-China position of the movement (Taşağil, 2004). His main achievement was considered to be formal reconciliation with the Western Turkic horde and personally with Kara-Churin-Turk. Negotiations between Yun-Ulug and Kara-Churin lasted from 588 to 593 and culminated in the official peace treaty of 593, according to which Kara-Churin-Turk retained all the privileges he had gained during many years of political struggle. Kara-Churin remained the leader of the Western Horde; he received all benefits from Central Asian trade, and had military and political independence. Yun-Ulug in return was content with the formal title of Kagan and directed his efforts to centralize power in the Altai-Mongolian possessions of the Eastern Türkic Horde.

The Turkic agreement of 593 is similar in many ways to the Edict of Theodosius the Great, which divided the Roman Empire in 395. De jure, the Eastern and Western parts of the Roman Empire remained a single state with two emperors. De facto, the emperors tried to establish either an independent political reality or a common political space at the expense of each other's interests. Only one part survived in the end – the Eastern Roman Empire. Two hundred years later, the Turks found themselves in a similar situation. De jure, the Kagan and Jabgu witnessed the availability of a unified Khaganate in 593. De facto, the interests of Jabgu and Kagan more often contradicted each other. However, the agreement of 593 seemed to be the most important ideological step in the public consciousness of Turkic tribes and their vassals. One way or another, the hope for reconciliation of the Turks appeared in 588, when Yun-Ulug came to power. The defeat of the Persians by the Byzantine army at Martiropolis (588), in our opinion, accelerated the rapprochement between Mauritius and Kara-Churin. The end of the open civil war in Central Asia, as well as another aggravation in relations between the Byzantines and their Slavic-Avarian foederati, encouraged Kara-Churin to fully resume the military and political alliance with the Eastern Roman Empire. With the aforementioned mediation of the Georgian archon Guaram Bagratid, the planning of a general campaign against Persia

took place. Given the Byzantine successes near Martiropolis (588), Kara-Churin decided to open a "second front" against Sasanian Iran (Sorochan, 2016: 149). After the complete defeat of Persia, the Turks and Byzantines planned to meet and establish a common border (Nöldeke-Tabari, 1879: 268). The Byzantines were to be assisted by the North Caucasian peoples and the Khazars dependent on the Turks (Semenov, 2015: 285-286).

The Great Silk Road and the specifics of Turkic Poly-Vassalage

As one can see, the Turkic Khaganate had no signs of a centralized state by 588 (Sadri, 2002: 195-198). Although this did not prevent the Turkic khagans, yabgas and khans under their control from maintaining iron discipline and law and order in the subordinate territories, the poly-vassalage mode of political existence of the khaganate corroded the Turkic politics from the inside. The Türks reluctantly split into parties, depending on the vectors of border trade that fed them.

In this context, the significant fact is that the Eastern European Turks and their vassals enjoyed the Byzantine status of foederati (Spivak, 2019: 129-130). Alans, Sabirs, Iberians, Lazs, Khazars, Ostgoths, Bulgars enjoyed Byzantine legal status long before the arrival of the Turks beyond the Volga (in 567) (Kovalevskaya, 1984: 134-136). The Turkic tribes did not violate the established social relations; they did not invade the sphere of customary law; they did not destroy the existing international relations. Consequently, the Eastern Roman Empire had enough power in the Eastern European steppe and the Caucasus, even in conditions of double subordination of the mentioned tribes – both to Constantinople and the Turkic Khaganate. During the intra-Turkic strife (570-580s) associated with the intensification of Chinese expansion (Sadri, 2002: 197), the existence of a powerful barrier of Iranian, Ugrian, Georgian, Germanic, and Turkic nationalities possessing ancient and well-established ties with the Eastern Roman Empire saved the Byzantines from a full-scale invasion of some Western Turkic tribes in the Balkans (Omasheva & Tanabaeva, 2017: 353).

In turn, the Oghuz of Kara-Churin and the Central Asian Turks were vassals of Sui China since 586. During the battle of Bukhara (587), this part of the Western Turkic horde fought under Sui banners and acted in cooperation with Chinese units. Previously, these same tribes,

including the oases of Sogdiana, also repeatedly recognized the suzerainty of the Persian Sassanid dynasty (Payne, 2013: 3-33). Actually, the penetration of the Turks into Central Asia was initially associated with the declaration of their pro-Persian orientation. However, the Turks soon realized that the Persians were solely competitors in the administration and taxation of transit trade (Çağlayan, 2020).

When characterizing the Central Asian system of poly-vassalage, one cannot ignore the West Turkic recognition of Byzantine suzerainty (567) (Menander Protector, 1985: Fr. 18). Although the Eastern Roman Empire was perceived by these Central Asian Turks more as a political ally, the Eastern Romans themselves did not share the status of their Khazar vassals and, for example, of the Oghuzes. One should bear in mind the fact that the Central Asian population, in addition to the established formal vassal dependence on Sui China, de jure recognized the presence of two authorities – the West Turkic Yabgu and the East Turkic Khagan (Plokhy, 2016: 72-73, 79). The situation certainly influenced the consciousness of ordinary warriors, merchants and farmers, since there were at least three or four supreme authorities for one person in different periods. Whose power was just? This natural question brought confusion into the social psychology of the multi-ethnic population of the Central Asian region.

The Eastern Turks of Altai were considered Chinese vassals since 584. The situation there looked somewhat more straightforward. Powerful Chinese and Turkic parties were formed. The first one saw the way out of the crisis in the complete absorption of the steppe by the Chinese. The second one, the most numerous, was looking for opportunities to acquire full sovereignty. The Chinese eventually managed to sow discord within the Turkic party and rally the Sinophiles around their protégés. After a series of civil wars, there was no trace left of the numerous admirers of Turkic independence. Thus, the Turkic Khaganate collapsed in 584-603 not in the most complex and poly-vassal Central Asia, but precisely in the centralized Altai-Mongolian nomads of the eastern Turks. The Khaganate was ruined by the proximity of the Chinese to the Altai stake and the desire of the ruling Ashin dynasty to join the benefits of Chinese culture.

In contrast to the Altai, poly-vassal Central Asia was brought together by the Great Silk Road (Ayubov, 2017: 27-35). Khotan, Kashgar, Bukhara, Paikend, Merv, Khorezm - these oases served not just as rich trading cities with vast

marketplaces ("bazaars"), but primarily as transit and transshipment hubs (Kalan, 2018).

Sui China did not desire centralization and good administration in the regions of Altai, Mongolia, or Manchuria since stabilization of the managerial elites of the Eastern Turks inevitably led to elaborate and organized interventions of the kagans in Chinese affairs, and threatened Turkic occupation of the whole of Northern China. That is precisely why Wen-Di devoted almost his entire reign to the disintegration of the eastern Turks, organizing various kinds of rebellions and strife among them (Sadri, 2002).

The Chinese acted exactly the contrary in the Central Asian possessions of the Western Turks. In this region, which was not directly adjacent to the densely populated areas of the Chinese Empire, the emissaries of Wen-Di helped the Turks to create an administrative apparatus and a well-functioning law enforcement system (Skaff, 2018: 386-399). The reason was the strategic importance of Central Asia for the Great Silk Road (Asoev, 2016: 82-89). That was why the Chinese supported the joint campaign of eastern and western Turks against Apa Khan in 587; that was why the Chinese did not prevent the establishment of the khan Yang-Soukh-tegin's authority in Bukhara and Paikend.

The rapid development of Central Asia under Turkic rule created amazing prospects for Byzantine-Chinese economic cooperation. It is well-known that Wen-Di (581-604) had an outstanding political outlook and skillfully assessed the coming prospects. The 580s, thanks to his talent, broke Chinese fragmentation, instilled in the Chinese population a belief in their state, their messianic role. The Chinese never came into conflict with the Persians (Li, 2018: 238-241); however, the opportunity to destroy the mediator on the Great Silk Road probably seemed tempting to the Chinese government.

Persian blockade of trade as a common threat to Byzantines and Chinese (hypothesis)

A real threat to the growing and centralized Chinese economy in the 580s was the Persian conquest of Sogdiana. Iran deteriorated following the death of Khosrow Anushirvan (531-579) (Myshin, 2014: 469), but Persia did not give up its attempts to "regain" the lost Central Asian territories (Payne, 2013). The Turks were viewed by the Persians as invaders and usurpers (Çağlayan, 2020: 649-650). Accordingly, the Persians sent spies to Sogdiana,

using the network of Nestorian Christian communities for propaganda purposes. The attempts of the Turks to establish a trade route along the northern coast of the Caspian Sea up to the Danube caused fear and irritation of the Persians, which led to clashes on the southern shore of the Caspian Sea and jeopardized the whole system of transit of Chinese goods to Byzantium. However, one should not forget: Byzantine goods were also moving towards China. Reciprocal trade brought enrichment to the merchant classes of all Asian countries (Baratova, 2004: 415-422). Another, much longer Iranian-Byzantine conflict, which lasted from 572 until 591, prevented direct supplies of Chinese goods to Byzantium or Byzantine goods to China, disrupting reciprocal trade. The sea route and the voyage through India looked even more dangerous. The North Caspian and Black Sea route in the 570s-580s remained the last hope of Sino-Byzantine trade and, by default, the main means of enriching Sogdiana (Jäger, 1923: 81-231). However, the establishment of the new land route was very slow. The Persians tried to quarrel the Turks and Byzantines in every possible way; they helped ignite the military conflict around the Bosporus of Cimmeria in 576-581, and played the Slavo-Avars card (Çağlayan, 2020: 649). The Slavo-Avars would not have attacked the Balkan provinces without Persian incitement. This incitement increased after 584 despite the confirmation of the Avar-Byzantine federation agreement. The worst situation was with the Slavic-Avar raids in the Subnistrian region. The subordination of the Antes to the Eastern Roman Empire, about which Justinian the Great made such a high-flown statement, was a pure formality, and the damage from the ruin of merchant routes was very substantial.

Balkan instability, Slavic-Avarian invasions, low population along the "northern" branch of the Silk Road – all these factors made the Turks, Byzantines and Chinese dream of resuming a direct route through the densely populated New Persian Shahinshahr (Eranshahr).

We believe that this situation, especially at the peak of Wen-Di's military glory (588-589), could not but give rise to the idea of coordinating military efforts with Persia's enemies to eliminate or transform it, aimed at resuming China's full-fledged economic relations with Europe and the Middle East. Byzantium, in turn, constantly declared its openness to negotiations with any opponents of the Sassanid dynasty - from Ethiopian Aksumites to eastern Turks. Hypothetically, we assume that Byzantine

diplomats may have held meetings or consultations with representatives of Sui China. The public recognition by Yang-Soukh-tegin of his vassal allegiance to China is in favor of such an assumption. Needless to say, Wen-Di had an extensive network of intelligence and informants in all khan or princely stakes that recognized their subordination to the Chinese Empire. In addition to intelligence agents, Chang'an diplomats were sent to all Chinese vassals. For example, the ambassador Zhang-sun-sheng, who for many years fulfilled the duties of the imperial observer in the headquarters of the Eastern Turkic khagans (580s-590s), was one of them. Bukhara, with its strategic importance, after the overall Turkic-Chinese victory over Apa Khan in 587, possessed both a Chinese community within the city and Chinese diplomats in the bet of Yang-Soukh-tegin, whose rule of Bukhara, Paikend, and the surrounding oases began immediately after the brutal assassination of Apa Khan (Narshakhi, 1897: 13).

It is possible that hypothetical contacts between Eastern Roman and Chinese emissaries took place in the Bukhara oasis. Given the further development of events, such contacts or negotiations could have touched upon the need to reestablish the traditional routes of the Great Silk Road (Jäger, 1923). It was intended to exploit the West Turkic horde to thwart the Persians, who not only raised taxes and customs duties but also hindered the transportation of Chinese products through Turkic lands.

The Turks had the opportunity to attack the Persians either in conjunction with the Byzantines or in the Khorasan direction close to Bukhara and Khorezm. In the first case, the entire western horde would have crossed to the North Caucasus. In the second case, the Turks would have concentrated for a campaign in Sogdiana. The advantages of the second option are evident since the Persians could quickly figure out the movements of the Turkic cavalry to the west and be the first to strike the Turks in the rear – to capture Sogdiana, depriving the Western Horde of all economic power and many strategic advantages at once. The attack from the Caucasus, therefore, was supposed to be carried out by the Poly-vassal Khazars).

The political interests of Wen-Di and Mauritius were united, among other things, in the mentioned poly-vassalage of the Turks. The two Turkic hordes recognized the suzerainty of China, but most of the tribes of the western horde were in the zone of Eastern Roman influence, enjoying the regime of the right of foedus

(Melnyk, 2020b: 147-148). The West Turkic Horde, de jure subordinated to the Suis, Byzantines and the Altai Kagan, seemed to contemporaries a good place for establishing cultural, economic and diplomatic contacts (Baratova, 2004: 415-422; Babayarov & Kubatin, 2013: 47-58). Central Asia in this sense turned out to be a valuable melting pot for both the Chinese and the Eastern Romans. The loss of Central Asia by the Turks in favor of Iran threatened terrible losses to rapidly developing China and Byzantium, eager to recover from the crisis. Accordingly, the offensive of the Turks in the Khorasan direction was planned to counterbalance the Caucasian front of the Khazars, as well as the performance of the main Byzantine army in the Mesopotamian Theater of military operations (Ferdowsi, 1989: 250).

In case our assumption about the possibility of Byzantine-Suian diplomatic contacts is true, the authorized persons could well have agreed both on war with Persia and the division of the poly-vassal Turkic Khaganate into conditional Chinese and Byzantine zones of influence. First of all, the diplomatic discourse would have concerned economic influence - organization of control over safe transportation of products. Many later Persian authors also hint at the existence of an agreement between the Eastern Romans and Western Turks on the full division of Sassanid Eranshahr (Ferdowsi, 1989: 250). Persian sources quite rightly note that the nature of planning and the scale of the military operation in 589 testify in favor of the existence of a plan for the destruction of Iranian statehood (Pourshariati, 2008). The notorious message of Yang-Soukh-tegin Khan to Shahinshah Ormizd Turkzadeh (579-590) directly indicates, according to the classic of Iranian literature at-Tabari, the desire of the Western Turks to seize Ctesiphon (Nöldeke-Tabari, 1879: 268).

The joint military campaign of the Turks and Byzantines (589)

Stepping back from hypothetical reflections, it is possible to conclude that the course of hostilities in 589 confirmed the desire of Byzantines and Turks to establish a common border along the supposed partition line of Persia (Gumilev, 1961). In addition, the main interested parties and obviously the initiators of the war were the Eastern Roman Empire and Sui China since the Chinese path to "free" trade with Europe and the Middle East lay solely through the destruction or fragmentation of Iran.

The year 589 seemed to the rulers of the above countries favorable for a general performance. In the preceding 588, the Byzantines had defeated the Persians, the western Turks had stopped fighting with the eastern ones and the Chinese successfully suppressed the resistance of separatists in the south and eastern Turks in the north. Persia, led by Ormizd Türkzadeh, went on the defensive along the entire perimeter of its borders (Pourshariati, 2008: 126). The chronicler at-Tabari wrote about the situation as follows: "the enemies surrounded Persia like the bowstring ends of a bow" (Nöldeke-Tabari, 1879: 270).

The hostilities began in the spring of 589 (Ferdowsi, 1989: 249-250). Byzantine troops captured and destroyed the fortress of Okba on the central section of the front. They were supported from the south by Arab federates under the command of Abbas the Crooked and Amr the Blue-Eyed, whose units captured many Persian caravans and plundered much of present-day Iraq (Nöldeke-Tabari, 1879: 270). The Khazar invasion through the Daryal Gorge helped the Byzantines from the north (Ferdowsi, 1989: 250). On May 5, 589 the Khazars entered Atropatena and devastated the strategic region of the southern coast of the Caspian Sea in May-July.

Iranian units managed to clear the northwestern regions from the Khazars in July; however, a new army consisting of Byzantine federates (Ossetians, Dzurdzuks, Didoians) entered Iran through the Caucasus Gate. These units were subordinate to the centurions of Guaram Bagratid (571-602). Apart from the Federates themselves, the new corps apparently included a large number of Georgian volunteers (Brosset, 1849). It should be noted that Archon Guaram Bagratid received the court rank of kouropalat from Mauritius in gratitude for organizing diplomatic negotiations between Constantinople and Kara-Churin-Turk and for preparing the South Caspian campaign (Semenov, 2015: 280). The Georgians showed themselves to be experienced and skillful fighters and performed the functions of control over the federates of the North Caucasus. At this point, Guaram claimed to cede large areas of the North and East Caucasus to Georgia. Probably, in case of armed success, the Byzantines would have given Atropatena to the Bagratid dynasty (Brosset, 1849: 220-221). However, a prolonged war (since 572) and recent Khazar plundering destroyed the economy of the Caspian lands (Menander Protector, 1985: Fr. 61). The Foederati and Georgians managed to gain a foothold in the new territories, but there were complications with food and defense communications. According to the Armenian historian Sebeos, in order to support Bagratid, the Byzantines had to send a third military contingent to eastern Transcaucasia – a detachment of cavalry led by General Romanus (Sebeos, 2007: 33).

On the "personality factor" in history: the ascendance of Spahbad Bahram Chubin

The successes of Roman and Guaram coincided in time with the opening of the second front by the western Turks (Ferdowsi, 1989: 250). The invasion of the Iranian province of Khorasan from the area of Turkic Bukhara began in the first days of August 589. At the same time, Ormizd Türkzade (579-590) convened a general council of Persian marzpans (viceroys, governors and officials of the vizir's divan) in the capital Ctesiphon. According to Ferdowsi, this council changed the strained relations between the shahinshah and the nobility (Ferdowsi, 1989: 247-252). Ormizd Türkzade had to ask for the help of retired officials and generals of the era of Khosrow Anushirvan (531-579). The patrimonial aristocracy oriented Ormizd towards reconciliation with Zoroastrian Mobeds (priests). One of the Mobeds even spoke at the council (Ferdowsi, VI 1989: 251). The Mobeds now had the word, and at the same time the hope of restoring Zoroastrian influence. Their position came down to an immediate war against the Western Turkic horde. Ferdowsi wrote as follows: "If the Turk from Jeyhun (Amu Darya - V.M.), threatening with war, has come, we must not delay a moment" (Ferdowsi, 1989: 251). The invasion of the Turks posed a threat to the entire Iranian statehood, since the forces concentrated by Yang-Soukh-tegin far exceeded the Byzantines in numbers, freshness and fighting spirit. The Yang-Soukh Türks did not, in contrast to the eastern Romans, wage a protracted war. They did not demand peace from the authorities, but only victory. In addition, Yang-Soukh gathered a large force of archers from the entire Western Turkic horde. Opposition to the Turkic armies forced the Persians to use other methods of military tactics and strategy than they had been accustomed to during the many years of conflicts with Constantinople. Khazars, Arabs and Byzantines, according to the Mobed lobby, did not pose such a strategic danger (Ferdowsi, 1989: 250, 252). On the one hand, according to the Mobeds' position, the Byzantines were exhausted from years of war and were happily awaiting any peaceful initiative. Accordingly, "it would be urgent to make peace with Byzantium by ceding the disputed areas" (Ferdowsi, 1989:

252). On the other hand, the Arabs, as Ormizd's advisers noticed, would not be able to resist the gold and would betray their Byzantine allies. On the third hand, the Khazars and Caucasian federates themselves would flee if their kin (Western Turks) were defeated on the eastern front (Nöldeke-Tabari, 1879: 269-270). When Ormizd asked the audience who was capable of leading the resistance to Yang-Sawh-tegin in the eastern direction, he received a direct proposal to appoint Spahbad Bahram Chubin (Ferdowsi, 1989: 254).

As early as 572, Chubin participated in the siege of Byzantine Dara (Pourshariati. 2008: 125); then he commanded the occupation forces of Eranshahr in Armenia (Kulakovsky, 1996: 350). Khosrow Anushirvan considered Chubin as a successful commander. However, chronicles have not brought to our knowledge any information about any outstanding victories of Bahram Chubin. Chubin's leadership in the Midian section in the initial times of Mauritius' reign led the front to disaster and favored the victories of Byzantine arms. It is quite likely that Chubin, whom Iranian sources call "the old warrior", represented the interests of the disgruntled aristocracy. The transfer of a combat-ready army into his hands could act as a factor of further intimidation of the intransigent Sassanid Shahinshah. However, Ormizd's fright was enough and he did not hesitate to give the post of commander-in-chief into the hands of a disloyal commander at the crisis moment. The presence of the Mobeds at the council, the call to service of the "old" Bahram Chubin, the nature of communication between the Shahinshah and his entourage – all this suggests that the ruler of Persia tried to make peace with the hostile tribal nobility.

As a result of the general council, Ormizd Türkzade ordered to give Bahram Chubin all the lists of the military divan (general staff) in order that the newly appointed commander could choose the units he would command (Ferdowsi, 1989: 258). Such a move was also uncharacteristic of Ormizd's early style of ruling. However, Chubin refused to use "cadre" units of the Persian army. He stated that the army was to be composed exclusively of men between 40 and 50 years of age with experience in warfare (Ferdowsi, 1989: 259). Having selected a detachment of 12,000 men, Chubin requested from the divan also oil installations for "throwing fire".

The ages from 40 to 50 years evidence that Bahram Chubin bet on mounted archers:

It is easy to explain why Bahram preferred the elderly to the young. Archers were the dominant force at the time, as was already mentioned, and it took at least 20 years to become proficient shooters. Shooting, not hand-to-hand combat, decided the fate of the battle. Persian archers reached the pinnacle of skill by the VI century and drew the bowstring not to the chest, but to the ear. The arrow flew for 700 meters and, being equipped with a well-tempered tip, pierced through the shell (Gumilev, 1961).

Gumilev is echoed by contemporary American historian Lyuttvak, who describes in detail the IV-VII centuries as the era of archery battles. Since Hunnic times, the compound bow with a reverse bend, striking the enemy in incredibly distant places, was considered the "god of war". An advantage in the number of trained mounted archers always meant the availability of an advantage in initial battle planning (Melnyk 2018: 9-13). The only problem was, as Gumilev correctly pointed out, that good archers were both old and battle-hardened fighters. Hence, Chubin's move was not escapist.

After all, this possibility should not be dismissed: the army recruited by Bahram Chubin could at any time march against Shahinshah Ormizd (Ferdowsi, 1989: 263). However, to begin with, Chubin and the Marzpans who supported him needed only a victory over the Western Turks. Any internal political discussions and quarrels were meaningless without this victory. In this case, the interests of the Shahinshah coincided with the interests of the hostile nobility. Contemporaries understood very well the complex of political, economic and military goals pursued by the interventionists (Tolstov, 1938: 3-39).

The Battle of Herat (August 589)

The Persian army could not, in contrast to the Turks, completely redeploy to Khorasan. The western front and the need to guard the huge perimeter of the border hindered it. In parallel with the invasion of the Byzantines in the west and the Turks in the east, a Kushan rebellion started along the southeastern border of Eranshahr (in the Indian regions of Khorasan). The Kushans, close in spirit and culture to the Indians, tried to escape from the Shahinshah's tutelage (Sebeos, 2007: 70). Since "trouble never comes alone", the official Ctesiphon could not use even frontier "Indian" contingents against the Turks. All hopes rested solely on Bahram Chubin's modest veteran corps of 12,000 warriors.

At-Tabari estimates the invading West Turkic army at 300 thousand men and about 200 war elephants (Nöldeke-Tabari, 1879: 269). Ferdowsi, writing later, assures that the army consisted of over 400,000 men and 1,200 elephants (Ferdowsi, 1989: 250). At-Tabari is probably right, given that the Western Turks attacked Persia not to plunder but to destroy it.

At-Tabari gives data about sending a message to Ormizd Türkzade by Yang-Soukh-tegin. The special envoy brought the following words to the Shahinshah:

Fix bridges over streams and rivers so that I could enter your country using them, and build bridges over the rivers that do not have them. Do the same with the rivers and streams through which my road leads from your country to the Rumians (Romans - V. M.) since I intend to pass to them through your country (Nöldeke-Tabari, 1879: 268).

Gumilev believed that "the text of the ultimatum shows both the true purpose of the campaign and the coordination of actions of the Western Turks and Greeks". We fully agree with the opinion of Gumilev (Gumilev, 1961) and who supported him, honoring their talents as interpreters. Prior to Gumilev, none of the researchers, despite the abundance of indications by Ferdowsi and at-Tabari, dared to interpret Yang-Soukh-tegin's appeal (Ferdowsi, 1989: 250) as a desire, first of all, to conquer Persia. Scholars assessed this action as another "barbarian" raid, and the descriptions of later Persian historians were considered "typical exaggerations" (Chavannes, 1900: 242-243; Semenov, 2015: 284-286). It seems to us that such a viewpoint is outdated, and the available data allow us to determine the goals and intentions of the Western Turks. Firstly, Yang-Soukh-tegin wanted to destroy the reserves of the Sasanian army, not involved in repulsing Byzantine attacks, and, secondly, the Turks were eager to reach the line of contact with the Byzantines (Ferdowsi, 1989: 250). In case of success of the campaign, Persia would quite reasonably cease to exist (at least in its Sassanid format – from the Caspian Sea to the Persian Gulf). Such success could only be guaranteed by the large number of invading troops. Consequently, the contingent of 300,000 people is not a fiction, but a calculation of all the resources used by the Turks (cavalry, auxiliary infantry forces, service of war elephants, technical personnel and rear service; we consider possible participation of some Sui and Eastern Turkic units that remained in Bukhara and Paikend since the campaign against Apa Khan (Narshakhi, 1897: 12-13).

The intervention of the contingents of Yang-Sawh-tegin turned the nearly seventy thousand Iranian troops concentrated in the northeastern part of the country into a rout. A few battles were enough for the Turks to break the resistance of Iranian outposts and seize several strategic roads along the trade route. A free passage to Khorasan (to the west) and Tokharistan (to the east) opened before Yang-Sawh-tegin. His forces divided, slowly moving forward. The vanguard of the army moved into Khorasan, where the leading troops planned to capture the fortified cities of Herat and Balkh (Nöldeke-Tabari, 1879: 269).

In response to the daring letter of Yang-Soukh-tegin, Ormizd Türkzade sent to the Bukhara Khan his envoy named Khurrad Burzin. This intelligence agent was obliged to make every effort to detach the khan with a small force from the main army and lure him into a trap prepared by Bahram Chubin in one of the Khorasan gorges. Probably, Khurrad Burzin tried not only to stall the time by fictitious negotiations on peace, but also tried to pretend to be a personal enemy of the Shahinshah. Relatively quickly he won the trust of the Bukhara Khan and even moved freely in the Turkic military camp. In the end, having successfully accomplished the mission assigned to him, Khurrad Burzin escaped unhindered (Ferdowsi, 1989: 264-265).

Yang-Soukh-tegin, guided by the advice of the "defector" Burzin, took only a 20,000-strong detachment of cavalry with him and moved directly to Herat along the course of the Gerirud River. It seems likely that Yang-Soukh-tegin wanted to capture the powerful Herat fortress as soon as possible, setting up his headquarters there and waiting for the main forces. When he reached Herat, Bahram Chubin's corps was already standing in the way of the Turks, while a narrow mountain gorge loomed behind. The place for the battle seemed extremely unfavorable and Bukhara khan made another attempt to negotiate with the potential "enemy" of the Shahinshah (Ferdowsi, 1989: 266-268). Yang-Soukh sent messengers to Chubin with an offer of the title of Iranian ruler and, which is characteristic for understanding the essence of the Turkic invasion, "a second place beside himself" (Ferdowsi, 1989: 270).

According to Ferdowsi, not all Persian commanders supported Chubin's ultimate decision to enter the battle (Ferdowsi, 1989: 272-273). The very same Hurrad Burzin, who was a personal spy of Ormizd Türkzadeh, encouraged Chubin to accept the tempting offers of the Bukhara khan (Nöldeke-Tabari, 1879: 271). It

may very well be that Bahram Chubin himself had for some time been contemplating cooperation with Yang-Sawh-tegin against Ormizd. However, the Turkic occupation would undoubtedly deprive Chubin of the support of aristocratic circles, while the favorable geographical position of the Persian army gave it a chance to destroy the main command of the Turks and thus frustrate all the plans of the invading horde. In the latter case, Chubin counted on the nationwide recognition and respect of the aristocracy. As can be seen from the following, the old commander was not mistaken.

At the end of August 589, the Battle of Herat took place (Gumilev, 1961). Pressed into a narrow gorge, the Turks fought very fiercely, forcing the first ranks of the invading Persians to flee (Ferdowsi, 1989: 275). For this case, Bahram Chubin prepared barrier detachments that met the fugitives from the side of Herat. However, the tactical retreat undertaken by Chubin encountered an elevated terrain that did not allow an organized and close-order retreat (Gumilev, 1961). The attack of the Turks was repulsed by the coordinated actions of Iranian archers who were shooting at the elephants (Ferdowsi, 1989: 276). The pride of the West Turkic army, the fighting elephants, trampled the formation of the Turks. Due to the resulting confusion, Bahram Chubin undertook a counterattack and, according to sources, personally shot Yang-Soukh-tegin with a bow (Ferdowsi, 1989: 277). The death of the Khan sowed terror among the Turkic ranks. Warriors began to flee to the gorge, where there was a fatal crush, reinforced by no less deadly fire of Iranian archers. Thus, out of the 20,000-strong detachment of Yang-Soukh-tegin, only a tenth of them managed to get back through the gorge (Ferdowsi, 1989: 277). At-Tabari would later write about it: "Persia was saved by Bahram Chubin's shot" (Nöldeke-Tabari, 1879: 271).

The tactical mistake of Yang-Soukh-tegin, who trusted Persian defectors, had strategic consequences. The main armies of the Western Turks were scattered in the sands of Khorasan and the valleys of Tokharistan. The numerical and technological advantage of the Turks was overshadowed by the problem of lack of leadership. Considerable forces, according to Persian chroniclers, were subordinated to Yang-Soukh's son Il-tegin-Buyuruk (the Chinese called him "Nili Khan" (Narshakhi, 1897: 14), and the Persians wrote "Parmuda") (Ferdowsi, 1989: 280-281). We assume that not all the khan's troops supported the new leader. Apparently, part of the Turkic army was engaged

in salvaging the looted riches. Jewels, captives and weapons captured during the initial flight of the 70,000-strong Persian contingent should have been transported to Sogdiana under Turkic control. In addition, large forces of Turks remained in mountainous Tokharistan, where they initially hoped to unite with the Kushites, but, in the end, simply plundered the settlements they encountered along the way.

The Battle of Herat (August 589)

In September 589, the hostilities broke out with new fierceness. Part of the Turks fled, and Il-tegin-Buyuruk tried to organize guerrilla warfare on the left bank of the Amu Darya. We attribute Bahram Chubin's offensive to the coming of the southeastern Sasanian troops. This army crushed the weakly organized defense of Il-tegin-Buyuruk by crossing the Amu Darya. Most of the loyal companions abandoned their khan and only the most loyal vigilantes encamped together with Il-tegin near Paikend (a place located 30 km from Bukhara).

The new battle is described in Ferdowsi's "Shahnameh" (Ferdowsi, 1989: 283-285). It took place at night and forced Khan to start the defense of the fortress of Avaz. Chubin's Persians, using standard siege techniques, deprived the defenders of water and cut off the ways for the arrival of reinforcements. After several rounds of negotiations, the Avaz garrison surrendered in exchange for keeping the khan's soldiers alive (Ferdowsi, 1989: 286-295). Il-tegin-Buyuruk paid for the lives of his vigilantes by voluntary captivity and official surrender in the presence of Ormizd Türkzade. The interesting fact is that Ormizd, the son of a Turkic woman accepted Il-tegin as a relative; he arranged official celebrations in his honor and granted the Bukhara khan the status of an honorary prisoner (Ferdowsi, 1989: 295). Up to 593, the son of Yang-Soukh stayed in Ctesiphon as a pledge of non-aggression of the Western Turks under the command of Kara-Churin. The life of Kara-Churin's grandson was valued very dearly and he was regarded as a real contender for the position of Kagan. In 593, he returned to the nomads of his grandfather and even managed to be the Western Turkic khagan in 603-604 (Telitsyn, 2020: 217-218).

The Byzantine troops of the commander Romanus, who were constraining Atropathena and Midia, became another target of Ormizd (Frendo, 1986: III. 6.8). Having captured such a valuable prisoner as Il-tegin-Buyuruk, Ormizd did not hesitate and, having secured peace

guarantees from the West Turkic yabgu, transferred Bahram Chubin's corps directly to the Transcaucasian front. Beforehand, the Persians bribed Arabian archons (sheikhs) and spread rumors about the defeat of the Khaganate among the Caucasians. The flight of the Foederati led Roman's Greco-Georgian units into encirclement. However, General Roman's withdrawal from the encirclement brought both troops face to face. Despite the betrayal of the Foederati (Brosset, 1849: 221), the Byzantines granted the Persians a general battle on the Arax River. Bahram Chubin already lost this battle after falling into a skillfully prepared trap. The complete defeat of his units seems to be a good compensation to the Turkic allies for the defeat of Yang-Soukh-tegin.

Bahram Chubin's mutiny levels the Persian gains

The Eastern Romans were unable to completely nullify the Heratian victory of the Persians because of Il-tegin-Buyuruk's captivity. However, the monstrous defeat of Bahram Chubin's "veterans" put Iran in a difficult domestic political situation. Emboldened by the murder of Yang-Soukh-tegin and capture of Il-tegin-Buyuruk, Ormizd Türkzade ordered to transfer Chubin's army to Transcaucasia as soon as possible. Consequently, Bahram Chubin did not send the due share of the booty captured in the Bukhara oasis to the Shahinshah (Ferdowsi, 1989: 296-297). In addition to financial disadvantage, Ormizd understood the aristocratic intentions to use "his" Bahram Chubin to suppress the autocratic regime of the Shahinshah. To put it simply, the patrimonial nobility really hated Ormizd for his autonomy and brutal repressive measures against treasury thieves (Pourshariati, 2008: 118-119). The Turkic origin of the Shahinshah (on his mother's side) only strengthened the anger accumulated over the years.

Being in a hopeless situation, when the Western Turks attacked Khorasan, Ormizd made a temporary alliance with the hostile nobility. However, the defeat of Bahram Chubin gave the Shahinshah a chance to get rid of a potential rival. "The King of Kings" declared Chubin guilty of defeat, sent the warlord an order to strip him of his title of commander-in-chief, accompanied by a spinning wheel and women's clothes (Frendo, 1986: III. 7.13-19). The ambassadors wanted to take Chubin to Ctesiphon, but the warlord flatly refused to obey the Shahinshah. Around October-November 589, Bahram Chubin wrote a letter to Ormizd with personal insults and declaration of war (Ferdowsi, 1989: 313). Chubin praised "the old Shah Khosrow" and scolded "the new Shah, who was the daughter rather than the son of Anushirvan" (Frendo, 1986: III. 8.3).

The mature general Bahram Chubin turned out to be a well-calculated politician. He gathered his troops and gave them a speech in which he accused Ormizd of collusion with the enemies of Persia, of his greed and desire to take away all the riches looted by the soldiers in previous campaigns. The soldiers were particularly affected by Chubin's false assurances about the existence of Ormizd's order to deprive the army of the state salary. The rebellion covered the entire western front line (Ferdowsi, 1989: 302-305). This allowed the Byzantines to regroup and gather new forces. After the fall withdrawal, Constantinople lost the Mysian and Atropatene territories, turning out to be along the frontier line approved as early as the Peace Treaty of 562 (signed by Justinian and Khosrow Anushirvan (Bajoni, 2018: 353-371)). By the beginning of the winter of 589/590, there was an apparent "draw" between Ormizd, on the one hand, and Mauritius/Kara-Churin-Turk, on the other hand. One of the Turkic heirs to the throne was in Persian captivity, and the Byzantine armies were exhausted in the fierce battles of 589. Constantinople lost the opportunity to use the Turkic invasion to destroy Persia, which forced the emperor to intensify economic diplomacy in the North Caspian direction. However, his wait-and-see attitude regarding Bahram Chubin's rebellion bore unexpected political fruit (Frendo, 1986: III. 8.12).

While Bahram Chubin was gathering troops in the west of the country, in Ctesiphon, aristocratic conspirators released one of the Shahinshah's relatives, Bindoi, from prison. Bindoi organized a rebellion in the capital and stormed the Shahinshah's palace on February 6, 590. The "King of Kings" was brutally tortured and killed, and all his relatives were executed at the same time (Ferdowsi, 1989: 320-321). Only one of Ormizd's sons, who was also the nephew of the rebel Bindoi – Khosrow II Parviz (Shahinshah in 590-628) – survived (Pourshariati, 2008: 130-131). Bindoy-Khosrow's government resumed negotiations with the other rebels (Bahram Chubin's group), offering Chubin the post of vizir. In turn, Bahram Chubin opposed the new government and publicly declared his intention to overthrow the entire Sassanid dynasty that had ruled Persia since 224 (Ferdowsi, 1989: 335-336).

The alliance of Khosrow II Parviz with the Byzantine Emperor Mauritius

In the spring of 590, Bahram Chubin's army defeated the armies of Bindoi and Khosrow II Parviz on the Great Zab River (modern Iraq) (Frendo, 1986: IV. 9.3). On March 9, 590, Chubin crowned himself the "King of Kings", proclaiming the era of the Mihran dynasty (Ferdowsi, 1989: 359-360). The main Ktesiphon prisoner, Il-tegin-Buyuruk, was also at his disposal. It is characteristic that not a single hair fell from the head of the Turkic "tsarevitch" in this case, too.

Having withdrawn with a group of thirty soldiers, the Shahinshah fled to the Eastern Roman border fortress of Kirkesia (Ferdowsi, 1989: 367-368). There is an assumption that already at that time Khosrow II Parviz accepted Christianity (Frendo, 1986: IV. 10.1-4) of the Monophysite persuasion and had predominantly Monophysite Armenians in his entourage. Probably, it was Armenians who advised the Shahinshah to ask Emperor Mauritius for help. The correspondence of Khosrow II with Mauritius testifies that the Iranian Shahinshah was really in a desperate situation (Ferdowsi, 1989: 371-382). He promised the Eastern Roman Empire to "forever" renounce all of Transcaucasia and claims to Armenia, and not to interfere with Byzantine frontier fortresses in Mesopotamia and Syria (Ferdowsi, 1989: 380-382). Khosrow wrote to Mauritius about his readiness to conclude "peace on any terms", noting that if the emperor found his offers not generous enough, the emperor himself could "add in his wisdom the missing". Most interestingly, the usurper Chubin also conducted parallel negotiations with Mauritius, sending the emperor an offer to "cede all Mesopotamia as far as the Tigris". It is possible that Chubin promised Atropatene as well; however, Mauritius, after months of deliberation, decided not to detach excessive territories from Iran (Frendo, 1986: IV. 14.9). Byzantium's own coffers left much to be desired and new lands with hostile populations, after the costly campaign of 589, could become a burden. Constantinople placed its final bet on Khosrow and on a policy of weakening Iran as a whole.

By March 591, Khosrow II Parviz received from Constantinople 1400 kg of gold and a corps of cavalry under the command of the Armenian general Narses. Ferdowsi also points to the fact of marriage of Khosrow and Mauritius' daughter Maria (Ferdowsi, 1989: 381, 389) (Byzantine sources do not mention this fact). In response, having entered the territory of Eranshahr, Khosrow immediately handed over to Mauritius the symbolic keys to the fortress of Dara, without putting forward any diplomatic conditions. Most of the border towns, populated predominantly by Nestorian Christians, welcomed Khosrow as a liberator, since the military dictatorship of the "Mihran era" led to even greater repression than the reign of Ormizd Türkzadeh.

By the summer of 591, Byzantine troops led by the Iranian Shahinshah captured the Persian capital Ctesiphon and took control of the capital region. The local inhabitants of the Christian faith (for example, in Khosrow's city of Antioch Christians made up the overwhelming majority of the population) welcomed the Byzantines as liberators, hoping for the "final" fall of Persian power. Soon, the Byzantine-Iranian contingents of Khosrow II Parviz united with the fresh troops of the Byzantine commander John Mistakon not far from the capital. Further, the 60,000-strong army of Khosrow, Narses, and John gave battle to Bahram Chubin's 40,000-strong corps, destroying the enemy and forcing the usurper to flee to the Far East (Ferdowsi, 1989: 408-410, 418-441).

The triumphant return of Narses, John, and Khosrow to Ctesiphon was accompanied by the signing of the Ctesiphon Peace Treaty of 591.

The essence and significance of the Ctesiphon Peace Treaty of 591

The war, which de jure had lasted since 572, was declared officially over. Almost the whole of Armenia was recognized as Byzantine; Persia gave up Dara and Martiropolis forever, and the official Ctesiphon was now to finance the protection of the Derbent Passage on its own. Persia was obliged to pay Mauritius a large monetary reward. However, the main condition of the Ctesiphon Peace was that Iran regained freedom of movement along the Great Silk Road. East Roman merchants were exempted from customs duties, received state benefits and the opportunity to move freely, under armed guard, to Sogdiana. In order to protect Khosrow from possible plots, Mauritius even sent him a personal guard of one thousand soldiers. In addition to getting married to a Constantinople princess, Khosrow even recognized Emperor Mauritius as his legal father. The procedure of Khosrow Parviz's adoption by Mauritius took place (Theophanes, 1839: 588-589). The Byzantine general Narses said to the Shahinshah after the treaty was signed, "You should remember, this day, Khosrow! The Romans are giving you victory". The modern historian

Peter Heather writes about this event, "significant acquisitions in the Caucasus gave the Romans strategic control over the far ends of the passes through the Zagros Mountains that led directly into the economic center of the Persian Empire between the Tigris and Euphrates rivers; it was a knife thrust over the Persians' most vulnerable spot" (Heather, 2013: 249).

Discussion

In any case, the Ctesiphon Peace Treaty of 591 was directed not so much at the territorial expansion of Byzantium into Persia, but at the intensification of trade with Central Asia and the Far East. The Persians fell into a position of dependence on the eastern Romans. Shahinshah Khosrow II Parviz was now de jure regarded as a son of Mauritius; he was his son-in-law, and was guarded in his palace by Greek soldiers.

Many Byzantine chroniclers, as noted above, considered Khosrow a Christian (Frendo, 1986: IV. 10.1-4). In any case, in addition to Mary, Khosrow was definitely married to the Armenian Monophysite Shirin. Her influence on state affairs led to the consolidation of the position of the Nestorians and Monophysites. The Ctesiphon patriarchate was given a privileged position at the court of Khosrow II Parviz. The Shahinshah donated a lot of money for monasteries and churches to Christians of various denominations (Frendo, 1986: V. 14.2-11). Economic relief was also granted to the orthodox Chalcedonian Christians who shared control over the South Caspian trade routes with the Nestorians and Monophysites.

On the one hand, Persia was regaining its ancient status as an intermediary between the Far East and the Mediterranean. On the other hand, the ruling Sassanid dynasty made Persia politically dependent on Constantinople. Consequently, the Ctesiphon Peace recorded the victory of the Eastern Roman Empire and, at the same time, was beneficial to Sui China. Although the Ctesiphon Treaty, called by Heather a "Versailles moment" (Heather, 2013: 249-250), did contribute to the birth of revanchist sentiments among the Persians, its significance for the period 591-602 can hardly be overestimated. An entire decade of peace on the eastern frontier of Byzantium (the western frontier of Eranshahr) took place for the first time in the seventy-year period.

The extent and significance of the victory of the Eastern Roman Empire in the war of 572-591 is evidenced by the embassy of the Merovingian king Hildebert II (570-596) to Constantinople (Theophanes, 1839: 591). The Franks, who had previously been very sluggish in helping the Byzantines, intensified their campaigns against the Lombards in Italy. Consequently, the Ctesiphon victory helped Mauritius to focus his attention on relations with the Slavo-Avars in the Balkans and with the Franks in northern Italy (Theophanes, 1839: 593). Up until 602, the Eastern Roman Empire undertook successful military and diplomatic operations on all European fronts. The Franks at this time were an effective instrument of Byzantine policy, continuing the tradition (Melnyk, 2020a: 228-244) established a century earlier.

"Shahinshah" of the "Mihran dynasty", Bahram Chubin, after a military defeat, abandoned his relatives and fled to Altai, where he surrendered to the Eastern Turkic kagan Yun-Ulug. Ferdowsi reports that Bahram Chubin was killed by Persian spies in approximately 592 (Ferdowsi, 1989: 437). From our standpoint, such an assassination in the Eastern Turkic possessions could have been accomplished with Chinese help. Firstly, the Sui dynasty did not want a renewal of the civil war in Iran. Bahram Chubin, on the other hand, actively urged Yun-Ulug to help him with troops. Secondly, only the Sinophile party could go against Yun-Ulug's will. After all, the Kagan made Bahram Chubin a particularly close official and personal advisor.

Conclusions

The Herat War of 589 was extremely profitable for China since Chinese silks and porcelain became profitable in Western exports only when they were exchanged for Byzantine jewelry and metals. The defeat of the Western Turks seemed to them an unfortunate fact, but the Ctesiphon Treaty in 591 stabilized the Silk Road two years later, bringing the Chinese a victory almost tantamount to consolidating Eastern Roman hegemony in the Mediterranean. It should be noted that exclusively international trade relations helped the Sui dynasty eliminate the great famine that broke out in 594 and the large-scale peasant uprising of the southern provinces that followed it.

By the way, while Yang-Soh-tegin was leading his army into the trap of Bahram Chubin, it was in 589 that Wen-Di destroyed the South Chinese ruler Hou Zhu of the Chen dynasty, extending the borders of the empire to the limits of modern Vietnam. Wenyu-Di managed to oppose the reconciliation between Kara-Churin and Yong-Ulug in 588-590, though with difficulty. In the

eastern Turkic direction, the ambassador of the Sui dynasty Zhang-sun-sheng found a pro-Chinese pretender to the post of Kagan – Zhangar from the ruling Ashin family (Gumilev, 1961). The war of 589 to some extent distracted the Western Turks from internal issues of the Turkic Khaganate, but after the terrible defeat of his son, Kara-Churin-Turk went on rapprochement with the Eastern kinsmen. In 593, the Turks were reconciled. From that moment, Wen-Di began to play the card of the traitor Zhangar. The civil war in the steppe broke out with new force. Yun-Ulug died at the hands of Chinese spies in the last months of 599 (Gumilev, 1961). Kara-Churin-Turk proclaimed himself the Khagan (599-603), but the Chinese invasion urned this powerful political figure of the second half of the VI century into the last Kagan of the united Turkic Khaganate (Gumilev, 1961). Fleeing from the Chinese, Kara-Churin died, like most of his relatives from the Ashin family. Zhangar considered himself the Kagan of the Eastern Turks, but the Khagan of the Western Turks turned out to be Il-tegin-Buyuruk - the very Ktesiphon prisoner who survived the coups of 590-591 and was released to Sogdiana by Shahinshah Khosrov II Parviz.

After the Ctesiphon Peace of Byzantium and Persia (591) and the Altai Truce of the Turkic Khaganate (593), the world political situation began to move slowly towards the conflagration of a great war that engulfed most of the VII century. Heather correctly called the Ctesiphon Peace a "Versailles moment" since the loss that resulted from the initial victory seemed to be a terrible humiliation for Sassanid Iran. In the Far East, West Asia and the Mediterranean, various forces were preparing for revenge against the successes of the Eastern Roman Empire and Sui China. In the end, these forces began a great widespread war in 602-604, which Gumilev called "the World War of the VII century" (Gumilev, 1961).

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The role of fairy tale publications in children's reading circle

РОЛЬ ИЗДАНИЙ СКАЗОК В КРУГЕ ЧТЕНИЯ ДЕТЕЙ

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Abstract

In the article, using the example of editions of Ch. Perrault examines the peculiarities of publishing fairy tales for children as an indicator of the refraction of the traditional concept of children's books in tsarist Russia and changes in publishing policy in connection with the formation of new pedagogical and literary and artistic trends. The study is based on scientific methods, such as observation, bibliographic heuristics, historiographic, comparative-historical analysis. Editions of fairy tales by Sh. Perrault, as an object of research, is considered in the historical development of Soviet book publishing, which acted under the influence of ideological factors and social conditions that determined the subject matter, types of publications, their translations and design. The features of the stages of development of children's book publishing are characterized from the point of view of pedagogical and publishing priorities, the competencies of translators and artists, indirectly influencing printing resources. The subject area of the study includes modern editions of fairy tales by

Аннотация

В статье на примере изданий сказок Ш. Перро рассмотрены особенности издания сказок для детей, как показатель преломления традиционной концепции детской книги в царской России и изменения издательской политики в связи с формированием новых педагогических и литературно-художественных тенденций. Исследование основано на научных методах, таких как наблюдение, библиографическая эвристика, историографический, сравнительно-исторический анализ. Издания сказок Ш. Перро как объект исследования, рассматриваются в историческом развитии советского книгоиздания, действовавшего под влиянием идеологических факторов и общественных условий, определявших тематику, виды изданий, их переводы и оформление. Особенности этапов развития детского книгоиздания характеризуются с точки зрения педагогических и издательских приоритетов, компетенций переводчиков и художников, косвенно влияющих полиграфических ресурсов. Предметная

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Sh. Perrault in the form of separate and special issues addressed to children with different reading abilities and aesthetic perception. The history of the publication of Charles Perrault's fairy tales is analyzed as a new type of publication that correspond to general political attitudes that make them legitimate for the perception of a children's reader. The article highlights the publications characteristic of each stage, which have developed under the influence of discussions about the combination of traditional and innovative views on the functions of a children's book: from edifying and moralizing to soviet propaganda and modern cultural and educational.

Keywords: fairy tales, publications, publishing houses, libraries, children, reading, culture, translations, tactile books.

область исследования включает современные издания сказок Ш. Перро в виде отдельных и сериальных выпусков, адресованных детям с разными возможностями чтения и эстетического восприятия. История издания сказок Шарля Перро анализируется, как издания нового типа, которые корреспондируют с общеполитическими установками, делающими их легитимными для восприятия детского читателя. В статье выделены издания, характерные для каждого этапа, сложившиеся под влиянием дискуссий о сочетании традиционных и новаторских взглядов на функции детской книги: от назидательно-нравоучительной к советско-пропагандистской и современной культурно-познавательной.

Ключевые слова: сказки, издания, издательства, библиотеки, дети, чтение, культура, переводы, тактильные книги.

Introduction

The importance of a fairy tale in the upbringing of a child is great, so a fairy tale will always be present in the repertoire of publishing houses. In 2017, a Concept of a program to support children's and youth reading was developed and approved by the Government of the Russian Federation, and based on it, a project of the Program of events to support children's and youth reading in the Russian Federation was formed, according to which programs are being implemented to involve children in events related to books and reading. On July 11, 2020, the Government of the Russian Federation published a plan of events for the development of the children's goods industry for 2020-2024, where the emphasis is placed on "increasing the share of children's books and periodicals... animated products and children's and youth mass media" (Order No. 1813-r, 2020).

Reading fairy tales is a significant step towards the child's development of social experience through the behavioral models of characters and knowledge of the objective world. Historical review of the editions of the tales of Sh. Perrault forms an objective view of the relationship between publishing policy and ideological and literary and artistic trends. The cultural and educational component of modern children's book publishing is again, as in the 1920s and 30s, aimed at activating reading in the youth environment, with the difference that the goal today is to deepen the analytical reading of children, and not just to introduce them to reading.

The fairy tale, as the main genre of folklore, as a work of magical, adventurous or everyday nature, attracted publishers. Back in the nineteenth century, M.O. Wolf introduced children's readers to fairy tales, and since then they have always been included in the core of children's book publishing. Modern philologists and cultural scientists in the aspect of dialogue with the modern reader are once again beginning to pay attention to a variety of fairy-tale material, both in Russian (Dudareva, 2017), and in English (Dudareva et al., 2019).

The process of formation of Soviet children's literature and the development of book publishing followed complex, contradictory paths. The denial of fairy tales, fiction and adventures in children's reading, as distracting from reality, occurred in parallel with the search for new forms and new types of children's books. In the prevailing historical conditions of the socialist social system, the concept of children's book publishing was based on a materialistic worldview that denied the fairy tale as a way of escaping from reality. During the NEP period, a large proportion of fairy tales were published by private publishers. They accounted for 40% of the output of children's books, which fell to 17% by the early 1930s, when the NEP was collapsed. (Shomrakova, 1986). The consequence of social changes in society was a children's book, which was entrusted with the function of educating a socially active personality, the builder of a new society. In the literary processes of this period, the ideological principle dominates, which

influenced the critical attitude towards translations of fairy tales by Sh. Perrault, which in the 1950s spread to the artistic design of publications. At the same time, the enrichment of children's reading circle was due to popular science publications on natural science topics. Subsequently, the Soviet model of publishing fairy tales was formed, which were produced in mass editions, but against the general background of the growth of publications of fairy-tale literature, not all works of Sh. Perrault was very popular. Most often they were included in collections along with fairy tales by other authors. Publishing collections of children's literature has been a common practice as a way to expand the reading circle of children. Currently, the reader also prefers collections of fairy tales, which include works by several authors. In addition to collections, author's and collective, the tales of Sh. Perrault is published separately in the form of separate edition, where the name of the fairy tale comes to the fore, which has become easily recognizable to readers, and the author's name fades into the background. Also, at the present stage of book publishing, the authors' appeal to the use of characters from fairy tales is traced. Perrault, as the heroes of his works. For example, the children's book "Learning to tell Time with Little Red Riding Hood" was published by Timoshka Publishing house в 2006. Today, Charles Perrault's fairy tales are presented not only in print, but also on various platforms: in animation, digital products, in theatrical and cinematic productions, as well as in the form of tactile books for visually impaired children.

Material and methods

Philologists, linguists, and bibliographers devote a significant place to the study of fairy tales in Russian science. The study of fairy tales as a publishing product is typical for specialists in the field of publishing, but their research focuses mostly on historical material. Among the few works on the history of children's book publishing, two monographs can be distinguished. One of them is devoted directly to the editions of fairy tales in the XVII-XIX centuries. (Timanova, 2011). The publishing aspect consists in a bibliographic collection of publications, which includes more than 300 titles, among them only three editions of the tales of Sh. Perrault from the XVIII century and not a single name of the XIX century. The value of this monograph is the fairy tale is considered as a phenomenon of literary creativity and as a result of material production. Another monograph (Karaichentseva, 2006) presents a study of the

formation and development of the Soviet system of publishing children's literature in the context of transformations in the field of education and upbringing, as well as the polemics of the 20-30s on theoretical issues, what a children's book should be, and whether children need a fairy tale in the book repertoire of proletarian culture. The author identifies and analyzes the stages of book publishing, the activities of publishing houses and the repertoire of children's books. In O. I. Timanova's monograph, despite the "book business" stated in the title, the emphasis is shifted to the disclosure of the concept of a "fabulous book". On the contrary, in S. A. Karaichentseva's monograph, the title is dominated by "book", and the research includes book business. In the science of the book (Belovitskaya, 2006), this approach does not contradict, since the book exists in the book business system. Outside the system, the book becomes an object of reader's study (Melentyeva, 2022). The fundamental monographs for this article, with their built-up retrospective of the book publishing of children's literature, are supplemented by a few publications that were involved in substantiating the importance of fairy tale publications in the reading circle of children. To study editions of fairy tales by Sh. Perrault needed to refer to the sites containing their descriptions.

To complete the study, it is methodologically justified to study the catalogues of a several of city libraries in order to identify modern editions of fairy tales in their collections. Perrault, which gave consistent results given in the article. Modern editions of fairy tales by Sh. Perrault can be identified in the National Electronic catalog (NEB). It was used to install publications that differ in characteristics: cut-down editions, panorama books, with game components. Such publications may be intended for children, regardless of their state of health.

The solution of the research problem using the method of historical criticism based on bibliographic sources gives a reliable idea of the editions of the fairy tales of Sh. Perrot, since the bibliographic description of "de-visu" ensures the reliability of the information. Legislative documents that influenced the development of children's literature and book publishing in the period under review were used as sources. The information resources of specialized libraries for the blind and visually impaired in the Central, Ural, and Far Eastern Federal Districts, which made up the corpus of sources for the study of tactile books, showed that the fairy tales of Sh. Perrault's are present in small quantities.

Tactile editions of Sh. Perrault fairy tales served as a kind of source, issued by the charity foundation "Children's books for small blind children" (The Fund "Illustrated books for small blind children.", (s.f)). They were published both for reading by adults and with a dubbing effect for children's reading. These publications have attracted attention because they differ little from children's books for 3-7 years of age, produced by modern publishers. They have a regular font and illustrations, some of which are voluminous, or made of a variety of materials. Reading tactile books, accessible to children with visual disabilities, complements the material of the article and works to uncover the topic.

In Soviet times, the publication of fairy tales was uneven, there were periods when the fairy tale left publishing houses or appeared extremely rarely. Starting from 1922, the monopoly on the publication of fairy tales belongs to state publishers. It is precisely in this period that a revision of views on children's literature takes place, and it began to be perceived as a subject of high art (Kiryushchenko, 2002). During this time, such talented children's writers as S. Marshak, K. Chukovsky, A. Barto, S. Mikhalkov, V. Bianki appeared, and the creation of a fundamentally new Soviet literature took place, forming authors and artists who determined the main features of children's books.

In September 1933, the Central Committee of the Party adopted a resolution on the organization of Detgiz - a specialized children's literature publishing house for the purpose of uniting the forces of writers, artists, educators, improving and expanding the activities of children's book publishers. At this stage, a new ideology of children's literature begins to be instilled, in which there is no place for a magical fairy tale. Fairy tales with romantic plots completely disappear from the publishing repertoire. The book of the new time should help to educate children in the spirit of proletarian ideology, should draw content for children's literature from real life, not creative imagination.

The exception was the publication of the fairy tales of Charles Perrault. In 1936, a collection of Charles Perrault's fairy tales was published by Detgiz with a fundamentally new translation, significantly different from the earlier translation by Ivan Turgenev, released by M. O. Wolf's publishing house. In the preface, the publisher emphasized that the tales are "fun, entertaining, relaxed, not burdened with either excessive morality or the author's pretension" (Perrault, 1867, p. 6).

The new translation, owned by M.A. Bulatov, was harshly criticized. In a review of the publication of Perrault's fairy tales by "Detgiz", A. Babushkina made a comment that it was not at all worth "adapting a fairy tale for children that was written for children" (Babushkina, 1936, p. 8). According to her, M. A. Bulatov completely removed all the emotionality from the fairy tale, it became dry, many of the characters' actions are difficult to explain. Despite the criticism, "Detgiz" continued to release Perrault's fairy tales in the translation of M. A. Bulatov, expanding the boundaries of the addressee of this work at the expense of the adult reader. The translator cannot be denied humanity, as he changed the ending of the fairy tale. In Perrault's version, Little Red Riding Hood was eaten by the wolf, but the translator used the more positive ending of the Brothers Grimm, where Little Red Riding Hood was saved by woodcutters. To this day, this ending prevails in editions of this fairy tale. In 1936, the fairy tales of Ch. Perrault were published in the State Publishing House of Artistic Literature (GIHL) translated by A.V. Fedorov and L. K. Uspensky. The small volume of 68x100 cm 1/32 sheet with illustrations by V. Tauber in a fabric binding had a circulation of 15,300 copies, which is quite a bit if you consider that the 1944 edition of the fairy tale "Little Red Riding Hood" was issued with a circulation of 100,000 copies. This is a third of the circulation of all fairy tales released that year.

In the post-war years, fairy tales began to be included in collections. From 1947, the fairy tale "Cinderella" regularly began to be included in the collections, and in 1950, "Detgiz" published it separately with illustrations by B. A. Dehterev.

Dehterev's illustrations are now considered classic and are often published in editions of Charles Perrault's fairy tales. The illustrator presents to the young reader a refined, exquisite world of baroque, where the characters are gallant, friendly, and "Little Red Riding Hood" appears as a righteous child. In the fairy tale "Puss in Boots," according to the researcher, "even the reapers in his picture seem to dance" (Gankina, 1963, p. 160), and only the Ogre is endowed with terrifying features.

From 1918 to 1991, 254 editions of Charles Perrault's fairy tales were published, of which 174 are separate editions. Not all fairy tales have gained as much popularity as "Little Red Riding Hood," which was published 54 times, or "Puss in Boots," published 46 times (Perrault, 1984, p. 4-10). Fairy tales like "Donkey Skin," "Ricky with the Tuft," and "Fairy Gifts" are rarely published as separate editions. Publishers include less popular fairy tales in collective compilations. It is worth noting that Charles Perrault's fairy tales began to be featured in compilations alongside works by such storytellers as the Grimm brothers and Hans Christian Andersen only relatively recently, in the 1970s. Prior to that, Charles Perrault's fairy tales were published with other French fairy tale writers, or in collections that included several fairy tale authors at once. The analysis of the selected publications revealed the intensity of

output in the post-Soviet period, when "the ideological preferences of publishers were very quickly replaced by considerations of short-term market benefits" (Lebedeva, (Comp.). 1993, p. 5).

Results

Review of editions of fairy tales by Sh. Perrault in the context of historical transformations that have affected the development of children's literature, it can be concluded that the reader's interest in the fairy tale remains unchanged. The publisher, guided by the trends of his time, remains a faithful supporter of the fairy tale, as necessary in the circle of children's reading for the moral and aesthetic maturation of a person.

"Little Red Riding Hood" is one of the most frequently published fairy tales by Charles Perrault by modern publishing houses. It was released in the series "Books are my friends" by the publishing house "Exmodetstvo" (Perrault, 2014a). In 2016, the publisher "Umka" (Perrault, 2016) released a fairy tale in the series "Book with large letters" The following year, the publisher "Iskatel" (Perrault, 2017) also released "Little Red Riding Hood" in the series "I read by myself word-by-word". In 2021, the publishing house "Rosman" (Perrault, 2021) released the book "Little Red Riding Hood" with voluminous images placed on five spreads. The fairy tale editions also differ in design: panoramic books in "Exmo" (Perrault, 2014b), books made of thick cardboard with die-cut in "Rosman". To develop creative skills, the fairy tale was released in the form of a book with puzzles, a book with stickers, a coloring book.

The fairy tale "Sleeping Beauty" has been published more than 20 times in different forms by different publishers in the last 10 years and has been included in series. The publishing house "Rosman" has repeatedly released this fairy tale: as a separate edition, also in the collection" 3 favorite fairy tales", and in the series: "Rosman Children's Library", "Masters of Illustration", "Book-Toy". Major publishing houses such as "AST Press" in the series "Classics for Little Ones" (2018), "Exmo" in the series "The Best Fairy Tales" (2017), "Drofa" (2019) and "Mahaon" in the series "Read me a book" (2019) have included "Sleeping Beauty" in their children's book repertoire. The latest serial edition of the fairy tale was released in 2021 by the publishing house "Onix-Lend". Charles Perrault's fairy tale "Sleeping Beauty" was released in gift and collector's editions.

The fairy tale "Puss in Boots" was published in different editions and forms. In 2011, the publishing house "Azbookvarik Group" released this fairy tale as a toy-book, in which the child could voice the characters' voices using buttons. The "Rosman" publishing house has repeatedly published the fairy tale "Puss in Boots", separately and in a collection, and once in large print. The "Dragonfly" publishing house in 2020 released a panorama book with volumetric constructions, and the publishing houses "Vako" and "Rusich" in the same year included this work in the series "Fairy Tale after Fairy Tale" and "We read ourselves", respectively. In addition to separate publications, the publishers "Makhaon" in 2010 and Exmo-Children in 2018 included "Puss in Boots" in collections.

The fairy tale "Gifts of the Fairy" was published 11 times during 1936-2018, including 5 times during the Soviet era. The fairy tale was called differently: Sorceress (1936, 1977, 1986), Fairy (1984), Magic (1993). Since the beginning of the 2000s, the name "Gifts of the Fairy" has been established. Modern publishers prefer to include this work in collections: in 2011, a collection included 7 of the most famous fairy tales by C. Perrault, including the fairy tale "Gifts of the Fairy". This edition is distinguished by a large format. In 2012, the publishing house "Speech" (St. Petersburg) published an author's collection, which included the fairy tale "Gifts of the Fairy" in the translation of T. G. Gabbe. The translators at different times were L. Head in 2006, A. V. Ganzen in 2010, M. Melnichenko in 2012 and B. Prozorovskaya in 2018. In 2009, this fairy tale was published in the translation of I. S. Turgenev from 1885.

Modern publishers pay attention to young readers with visual impairments. Reading for a child with disabilities is arguably the only key to intellectual development. In 2022, during the XXXV Moscow International Book Fair, projects of tactile books for children with visual impairments were presented. The creation of tactile books is quite a labor-intensive process, and library workers, students of creative educational institutions, volunteers are involved in it. Sometimes in the creation of tactile books, you can meet unexpected participants. In 2023, in the Khanty-Mansi Autonomous Okrug, the Ministry of Emergency Situations took part in the regional contest for the creation of tactile books in the nomination "Best implementation of a creative idea on a fire safety theme" (Ministry of emergency situations of Russia, 2023)

Tactile books present a secondary text that differs from the original. The information is provided in a concise form that conveys key plot points and characterizes the characters from the point of view of their tactile perception. The contact method of obtaining information, in which the child feels the weight, size, contour outlines, hot-cold, soft-elastic, and other qualities of the object, predominates in working with the book. From this, a representation of reality begins to form. A blind child's touch sensations are quite limited due to a lack of life experience, and the tactile book aims to develop a culture of perception so that the sensory perception of non-verbal text is adequate to verbal, or as close to it as possible.

Tactile books are created by hand using various materials: fabrics, dense cardboard, wood, wool, fur, etc. The child reads by feeling the objects and gets a primary idea of things, materials, characters, natural phenomena, and then associatively connects them with real objects. Some of them can make sounds: rustle, ring, rustle. The sound that an object makes when pressed, like in healthy children, levels the difference between healthy children and those with visual impairments. The purpose of tactile books is to enrich sensory experience and master the material world, as well as to develop fine motor skills. The feature of the tactile book is that the information is only consolidated in the mind, unlike a printed book, where language not only consolidates information but also conveys it.

Conclusion

Fairy tales of Sh. Perrault was invariably present in publishing, but the intensity of the release fluctuated. Some fairy tales were popular, and some rarely got to the reader. The research of children's literature, on which this article is based, suggests that in a number of fairy tales the content did not meet the tasks of raising children in Soviet society. The publication of fairy tales has a high communicative potential. Modern publishers focus their publishing house on classic works of fairy-tale literature. The "golden" fund traditionally includes fairy tales by Sh. Perrault. The study of the publishing repertoire made it possible to identify their place and role among other publications of the author's fairy tale in Russia. The method of bibliographic heuristics used in the article allowed to conclude that the output of fairy tales is uneven. Perrault and objectively evaluate the most intense periods of their publication. In the 1930s, in connection with the organization of the state children's publishing house, circulation increased, in the second half of the century the emphasis shifted towards improving the quality of artistic and printing design. In the 1990s, the change in the economic model of the book publishing industry affected the publication of fairy tales. They were constantly present in the publishing house of the fairy tale Sh. Perrault up to 2020. It was in this year that the government's program to support children's and youth reading in the country ended, coincided with the peak of the pandemic. The reading circle of preschool children is replenished with publications with colorful illustrations aimed at developing the child's imagination. Tactile books are being prepared for children with visual impairment, with the help of which the child learns about the objective world. Inclusive publishing projects offset the difference in the cognitive process between healthy children and those with developmental disabilities, primarily those with visual impairment. Fairy tales of Sh. Perrault was invariably present in publishing, but the intensity of the release fluctuated. Some fairy tales were popular, and some rarely got to the reader. The research of children's literature, on which this article is based, suggests that in a number of fairy tales the content did not meet the tasks of raising children in Soviet society.

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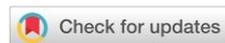
The role of cultural and creative competencies in shaping success of art ukrainian students

Роль культурних і творчих компетентностей у формуванні мистецького успіху українських студентів

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Abstract

The article considers the issues of the competency-based approach in higher education and the role of cultural and creative competencies in the modern educational discourse. The aim of the article is to define the peculiarities of forming cultural and creative competencies of students in artistic specialties in higher education institutions of Ukraine, as well as to elucidate the influence of these competencies on the competitiveness and professional career advancement of specialists in both domestic and global labor markets. The research methodology includes a combination of systemic-differentiated, comparative, synergistic, cultural, axiological, structural-functional, and empirical methods, which are employed to clarify the peculiarities of forming cultural and creative competencies during students' professional training in artistic specialties. The article demonstrates the peculiarities of forming cultural and creative competencies in the Standards of Higher Education and educational-professional programs, examines role of the educational environment in forming creative competencies and its peculiarities as an educational-creative environment using the

Анотація

У статті розглянуто питання компетентнісного підходу в системі вищої освіти й роль культурних та творчих (креативних) компетентностей у сучасному освітньому дискурсі. Метою статті є визначення особливостей формування культурних та творчих (креативних) компетентностей здобувачів мистецьких спеціальностей у закладах вищої освіти України, з'ясування впливу означених компетентностей на конкурентоспроможність і професійно-кар'єрну реалізацію фахівців на вітчизняному та світовому ринку праці. Методологія дослідження ґрунтується на комбінації системно-диференційованого, компаративного, синергетичного, культурологічного, аксіологічного, структурно-функціонального, емпіричних методів, які використані для з'ясування особливостей формування культурних та творчих (креативних) компетентностей у процесі професійної підготовки здобувачів мистецьких спеціальностей. Показано особливості формування культурних та творчих (креативних) компетентностей у Стандартах вищої освіти та освітньо-професійних програмах.

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example of training students in artistic specialties at Kharkiv State Academy of Culture. Promising directions for improving creativity development in educational-creative environments of educational institutions are identified, which enhance the competitiveness of professionals in artistic specialties and contribute to the resolution of crisis phenomena in society.

Keywords: competency-based teaching, cultural research / policy, competency, creative, art, creativity, higher education, educational environment.

З'ясовано роль освітнього середовища у формуванні творчих (креативних) компетентностей та особливості його як освітньо-творчого середовища на прикладі підготовки здобувачів мистецьких спеціальностей Харківської державної академії культури. Виокремлено перспективні напрями удосконалення розвитку творчості (креативності) в освітньо-творчому середовищі закладів освіти, що підвищує конкурентоспроможність фахівців мистецьких спеціальностей та сприяє вирішенню кризових явищ у суспільстві.

Ключові слова: компетентнісний підхід, культурна компетентність, творча (креативна) компетентність, мистецтво, творчість, вища освіта, освітньо-творче середовище.

Introduction

Intensification and assimilation of globalization processes into all spheres of societal life has been a characteristic trend in the first quarter of the 21st century. Technologization and informatization have triggered a "tsunami effect" in all aspects of the social space and have defined promising directions for humanity's development.

Along with striking technological advancements associated with the latest scientific and technological revolution, crises have emerged, which include, primarily, the so-called crisis of "technocratic dominance" and, as a consequence, ecological crisis; the crisis of spirituality in its general and specific manifestations increasingly assuming threatening proportions: dehumanization of societal existence, depreciation of personal qualities, crisis of individual socialization, decrease in individual socio-role activity, devaluation of intellectual activity, global educational crisis, and so on (Sheiko, 2005, p. 6). At the beginning of the 20th century and, surprisingly, in the first quarter of the 21st, the words of the Spanish philosopher J. Ortega y Gasset (1965) remain relevant: "Today, humanity itself is experiencing a collapse, as it can no longer keep pace with its civilization. Growing civilization is nothing but a burning problem. The more achievements, the more dangers it contains" (Ortega & Gasset, 1965).

Currently, society is interested in resolving such issues as racism, decolonization, climate crises, support for trans identity, and disability advocacy regardless of race, gender, etc. (Paris, 2021, p. 364). These crisis phenomena and the search for ways to solve them confront all spheres of sustenance and the educational sector in

particular. Considering this, Paris D. (2021) poses a perfectly logical question: "How can we restore education, envision it anew, transform it, and be part of a possible future?" (Paris, 2021, p. 365).

Overcoming the threat of cultural destruction, countering "one-dimensional thinking" (Marcuse, 1996, p. 104) of society in the era of mass culture, and preserving a spiritually integral personality capable of overcoming crisis phenomena are possible under conditions of a balanced educational paradigm in the context of contemporary globalization shifts. Educational institutions must ensure the preparation of highly qualified and competitive professionals capable of both advancing scientific and technological progress, and addressing a range of socially significant problems.

Crises in contemporary society pose a significant challenge to the education system, which aims to overcome the adverse effects of globalization processes, particularly the relevant crises of society. This necessitates radical transformation of the modern education system. The most relevant issues for the education crisis include spiritual crisis, dehumanization of society, and decline in social-role activity of individualsб which demand a fundamental restructuring of the educational paradigm and trigger global transformative processes in education. Personal development, social and professional self-realization of youth can serve as leading means to overcome these crisis phenomena.

A competency-based approach and attention to the development of cultural and creative competencies among students occupy a prominent place in the formation of educational

philosophy and methodology. Joo-Seng Tan (2005) notes that cultural competency is required to cope with stress resulting from culture shock and, consequently, disillusionment and confusion, which typically may result from clashes of cultural differences (Joo-Seng, 2005, p. 19). In turn, the development of creative competencies as a component of students' professional training "enables, at a fundamentally new, integrative level, the transfer of acquired competencies from one area of life to another to achieve a fundamentally new result of activity or to perform activity at a fundamentally new qualitative level" (Dimitrova-Burlayenko, 2017, p. 82).

Cultural and creative competencies are important for representatives of all specialties in the context of contemporary education transformative processes, as they are integral to the successful personal development of young people. Nevertheless, these competencies are particularly significant for the representatives of artistic specialties, for whom these skills are crucial both for personal development and professional self-realization, especially in the context of overcoming the crises of contemporary society. Such competencies as the ability to generate unconventional ideas, the capacity to make considered decisions in situations of uncertainty, recognition of the multicultural nature of contemporary society, and tolerant attitude towards cultural diversity in the context of creative searches and the implementation of artistic projects are essential for the competitiveness of modern professionals in the artistic field.

Nowadays, to be a successful mathematician, it is not enough to be proficient in calculations and formulae, and for a musician, it is not just about memorizing musical scores. The task of higher education institutions is to prepare professionals capable of competing in both domestic and global labor markets, being effective in various fields, and countering societal crises. In a constantly changing world, innovation and creativity can be considered synonymous with competitiveness. NACCCE report. (1999) notes that creative and cultural education are not alternatives to literacy and numeracy, as they are equally essential for future generations (NACCCE report, 1999, p. 13). This actualizes the consideration of examining the specifics of developing cultural and creative competencies among students in arts specialties in higher education institutions.

Literature review

Theoretical and methodological analysis of the problem indicates that the competency-based approach to preparing professionals in higher education sparked lively interest among researchers. Both domestic and international scientific investigations focus on such theoretical aspects as the content of the concepts "competence", "competency", and "competency-based approach", on characteristic features and structures of general and professional competencies. Additionally, much attention is given to the experience of developing specific competencies in higher education institutions, their role in professional career guidance, and their compliance with modern demands of business community.

Yagupov V., & Svistun V. (2007) identified the application of the competency-based approach as one of the optimal ways to meet the needs for comprehensively trained professionals, both graduates of higher education institutions and their instigators. Yagupov V., & Svistun V. (2007), along with other researchers like Zablotska O. (2008), Rud M. (2006), Miroshnychenko V. (2009), clarified the concepts of "competence", "competency", "competency-based approach", and "key competencies". The scholars emphasize that professional competence of a specialist is not merely the sum of knowledge, skills, and abilities. To be a competent professional, one needs not only fundamental theoretical and practical training but also to be a creative individual, professionally and psychologically prepared and capable of effective application of the acquired professional knowledge in professional activities. Many examples can be cited regarding outstanding students who failed to optimally apply acquired professional knowledge in specific production-management situations (Yagupov & Svistun, 2007, p. 6).

Zablotska O. (2008) performed a comparative analysis of the competency-based approach to education in higher education and identified differences between the outcomes of education based on the knowledge paradigm (knowledge, skills, abilities) and such "competencies" as units and outcomes of the competency-based approach (Zablotska, 2008, p. 63).

Despite the pluralism of research themes regarding competencies and the competency-based approach, scholars directly or indirectly touch upon the themes of creativity and cultural

creation during the implementation of professional training for specialists.

Marushko L., Hura A., Bryk R., Baboval N., & Karabin O. (2023) considered issues related to the professional training of future teachers and noted that to develop the professional competency system, it is necessary to employ non-standard and creative approaches to teaching that ensures active interaction among students during the learning process (Marushko et al., 2023, p. 315). The researchers found that the level of professional competence of a teacher depends on continuous improvement of knowledge, self-realization, and development of creative potential, which is reflected in new methods of information presentation (Marushko et al., 2023, p. 315).

Cultural education, creativity, and imaginative competencies, as a direct object of study, have been reflected in a number of scientific works, defining the direction for further research.

Bilytska V. (2020) considers cultural competence as the level at which a person defines the horizons of perception of objective reality, socialization, and interculturality of the personality, which includes such components as understanding, relationship, knowledge, and skills (Bilytska, 2020, p.17).

According to Van Dyne L., Ang S., & Koh C. (2008), cultural competence comprises four components: 1) cognitive – scientific-cultural norms, practices, and rules of an individual in different cultural environments; 2) metacognitive – an individual's cultural consciousness and awareness in interactions with the representatives of other cultural backgrounds; 3) motivational – an individual's ability to direct attention and energy towards cultural differences; 4) behavioral – an individual's ability to exhibit appropriate verbal and non-verbal actions in interactions with people of other cultural backgrounds (Van Dyne et al., 2008, p. 16).

Dimitrova-Burlayenko S. (2017) defines creative competence as the ability to demonstrate productive activity and creatively transform reality, characterized by originality, flexibility, speed, critical thinking, holistic perception, independence, decisiveness, self-confidence, and openness (Dimitrova-Burlayenko, 2017, p. 87).

Alves J., Marques M. J., Saur I., & Marques P. (2007) in their article "Creativity and Innovation through Multidisciplinary and Multisectoral Cooperation" state that creative competence involves capability for innovation, new product development, and competitiveness in the contemporary environment (Alves et al., 2007, p. 28).

Researchers highlight the connection between the crises of contemporary society and the need for transformations in higher education, where the development of modern professionals occurs. It is within the educational process that the foundation is laid for further successful professional activity and competitiveness.

Markevičiūtė I., & Jucevičius G. (2013) provide compelling arguments regarding the necessity of cultivating creative competencies in contemporary professionals. The researchers note that CEOs, managers, as well as leaders in the public sector worldwide, stated that creativity was the number one leadership competency their organizations need due to the uncertainty and complexity of the global competitive environment (Markevičiūtė & Jucevičius, 2013, p. 44). Creativity has become the most important factor for a company's success and competitive advantage (Markevičiūtė & Jucevičius, 2013, p. 45).

Several researchers pointed out both the demand for creative competencies and advantages as key skills for professionals. Here are some arguments provided by scholars:

- Martins F. S., Santos E. B. A., & Vils L. (2017) – creativity is necessary for the emergence of innovations within an organization (Martins et al., 2017. p. 1223).
- Alves J., Marques M. J., Saur I., & Marques P. (2007) – creativity is a part of the innovation process that contributes to firms' competitiveness (Alves et al., 2007, p. 28).
- Isouard G., Martins Jo. M., & Friedman L. (2015) – creativity and innovative thinking are beneficial for any environment where risk is acceptable and new ideas are encouraged (Isouard et al., 2015, p. 258).
- Jeffrey B. (2006) – creative learning is a common discourse and a solid foundation for European educational connections (Jeffrey, 2006, p. 16).
- NACCCE report. (1999) – the business community wants education to give higher priority to fostering young people's creative abilities (NACCCE report, 1999, p. 7).
- Kokarieva A. (2021) – creativity enables adaptation to the educational environment, successful creative activity, with all efforts focused on optimizing the process, finding an unlimited number of ways to solve the

problem, and the ability to find solutions in non-standard situations (Kokarieva, 2021, p. 38).

Daviesa D., Jindal-Snapeb D., Colliera C., Digbya R., Haya P., & Howea A. (2013), relying on a systematic review of over 200 research studies, emphasize the importance of developing creative skills in children and young people.

According to Rasmussen P. (2012), one of the key tasks of adult education is creative and innovative competence. To support his findings, he cites the analysis of the national "competency audit" conducted by the Danish Ministry of Education (2001-2005), which identified creative and innovative competencies as key for the population (Rasmussen, 2012, p. 3).

Cultural competencies, including cultural intelligence, as their component, attract the attention of many researchers, including Joo-seng T. (2005), Earley P., & Ang S. (2003), Bilytska V. (2020), Varnavska I., & Cheremisin O. (2021), Johnson R. (2014), Ivanova V. (2020), Syzenko A., & Diachkova Y. (2020), among others.

Therefore, Bondarenko N., Cherepania N., Malets D., Klepar M., & Matveieva N. (2023) identified the criteria of a culturally tolerant personality and proposed a definition for "tolerance". They discussed the typology, principles, functions, essence of professional tolerance, and the foundations of tolerance formation in higher education learners.

Joo-seng T. (2005) notes that in the 21st century, the ability to adapt to different cultures is essential, and consequently, more organizations and individuals perceive cultural intelligence as a strategic capability and competitive advantage (Joo-seng, 2005, p. 19). The researcher emphasizes that for successful companies, cultural intelligence is a valuable capital. Joo-seng T. (2005) provides examples: IBM firmly believes that intercultural competence is the glue that ensures cohesion and collective productivity; Novartis and Nike see a competitive advantage in hiring individuals with cultural intelligence; at Lufthansa, culturally developed individuals are considered a valuable asset to the organization, especially during crises (Joo-seng, 2005, p. 21).

Regarding professionals in the artistic field, researchers provide examples of how cultural and creative competencies manifest in their professional activities. Ivanova V. (2020) cites an example of competencies in demand during the implementation of creative projects by student musicians within the framework of the nationwide educational artistic project "Music Forum". Working on these projects enriches creative experience; and skills in intercultural communication, socialization, and personal self-realization are developed (Ivanova, 2020, p. 132).

The methodology of research and the specifics of cultural and creative competencies development among students in arts specialties in Ukrainian higher education institutions are not sufficiently highlighted that determines further scientific exploration to resolve these issues.

In this study, we will rely on the following understanding of creative and cultural competencies. Creative competencies refer to the acquired abilities of a professional to engage in innovative, non-standard, flexible activities leading to creative actions and are aimed at achieving specific goals and tasks in professional practice. Cultural competencies, on the other hand, are the acquired abilities of a professional to adapt to the socio-cultural environment, comprehend socio-cultural processes of societal development, engage in cultural creation, actively and productively act to achieve specific goals and solve professional practical tasks within the context of cultural dialogue and the challenges of globalization.

In our research, we examine creative and cultural competencies in an inseparable interaction, taking into account that creativity plays a key role in artistic specialties - which we emphasize, while considering the cultural approach in education and the formation of cultural competencies as a means of enhancing cultural orientation and the cultural-humanistic function of education.

The purpose of the article is to identify the features of developing creative competencies among students of artistic specialities in the educational and creative environment of higher education institutions in Ukraine.

Methodology

The research is based on the assumption that the development of cultural and creative (innovative) competencies among students of artistic specialties in Ukrainian higher education institutions influences specialists' competitiveness and professional career

advancement in both the domestic and global labor markets.

To achieve the research objective, the following methods of scientific cognition were employed: analysis and synthesis - to characterize key concepts, scientific sources, and regulatory documentation; systematization and generalization - to formulate conclusions and proposals for improving the formation of creative (innovative) and cultural competencies among higher education students.

The methodological framework of the scientific cognition is formed by combining general scientific research methods.

The systemic-differentiated approach allows us to consider the process of developing creative and cultural competencies in the higher education system. The essence of applying this approach lies in:

−   considering competencies as a part of the higher education system - a comprehensive, complex, dynamic system that includes legislative, organizational, didactic, educational, and other elements and subsystems with hierarchical subordination;
−   identifying relationships between competencies and professional activities, as well as the regulatory acts that define them (curricula, educational-professional programs, standards, strategies, etc.);
−   the expediency of distinguishing creative and cultural competencies in the competency-based approach system, consisting of organically combined skills necessary for preparing competitive professionals.

The structural-functional approach is applied to determine the role of creative and cultural competencies in training competitive students in artistic specialties.

The axiological approach envisages consideration of creative and cultural competencies from the perspective of value theory, emphasizing their role in future professional activities and addressing socially significant issues. In the new system of societal values influenced by globalization processes and the increasing occurrences of wars, environmental, and technological disasters, discrimination, and intolerance, formation of cultural competencies becomes a priority task for the sphere of education.

The comparative approach is used to substantiate the necessity of developing creative and cultural competencies in the process of preparing higher education students. They are considered as structural-functional elements of the competency-based approach in the higher education system, taking into account the current socio-economic realities.

Synergistic approach to creative competencies involves application of chaos and order categories. Order is perceived within the context of the educational-creative environment (methodological and theoretical variability, the combination of abstract-logical, rational, irrational, critical approaches, etc.), where orderliness is ensured by the education system, while chaos represents the process of creativity and innovation. The result of creative activity of the educational process participants is new ideas that coincide with the goals of the educational process and the education system as a whole. Innovative ideas and creativity, acting as attractors, determine the evolution of the educational environment, transforming it into a new progressive higher-level system, which we propose to consider as the educational-creative environment of a higher education institution.

Culturological approach is applied within the framework of a unified humanistic orientation in the global space, aiming to create educational-creative environment that combines processes of learning, upbringing, and the formation of a meaningful life trajectory for individuals. The principle of culturally responsible education lies at the heart of creative and cultural competencies formation, serving as the ideological cornerstone of the cultural approach. V. Sheiko emphasizes the cultural function of contemporary education, which involves socialization and the development of creative abilities in individuals, thereby opening perspectives for providing conditions for social-professional and socio-cultural self-realization of an individual (Sheiko, 2005, p. 246).

Empirical research technologies are associated with such traditional methods of study as observation, comparison, and surveys. Higher education standards and educational programs are markers of the contemporary domestic paradigm of higher education.

The study involves comparison of higher education standards for four artistic specialties, and educational-professional programs for five higher education institutions corresponding to those specialties.

In the study, an express psychodiagnostic method based on D. Johnson's creativity questionnaire was employed to determine the level of creative competencies among students of artistic specialties at Kharkiv State Academy of Culture (Ukraine). Additionally, a survey developed by the authors of the article was used to examine the educational-creative environment of the higher education institution. The survey included 47 students from four artistic specialties (Music Art, Performing Arts, Audiovisual Art and Production, Choreography) at the bachelor's level of higher education. The survey was conducted on the educational platform Google Workspace for Education within the corporate online educational environment of Kharkiv State Academy of Culture using Google Forms. The author-developed survey comprised 13 questions aimed at determining students' perceptions of the level of the educational-creative environment formation at the artistic higher education institution. The questions posed included: Who, in your opinion, should be creative in the higher education institution? Did the level of creativity of the higher education institution influence your choice of study place during admission? In your opinion, is creativity important during studies? Which disciplines shape creativity during studies? Which disciplines should shape creativity during studies? In which discipline cycles should creativity be enhanced? Do instructors demonstrate personal creativity? In your opinion, is creativity important outside of academic activities – in student self-governance, scientific, and public work? Identify what factors influence the formation of a creative educational environment in the higher education institution? Are you satisfied with the level of creativity at the higher education institution? In your opinion, is creativity important in further professional activity? Additionally, the survey included questions about the specialty and proposals for expanding the possibilities for generating creative environment in the higher education institution.

Considering the subjectivity of the survey and influence of the artistic context of the higher education institution on the personal self-definition of respondents, the conducted survey enabled the identification of general directions for the development of the educational-creative environment in the artistic higher education institution and the formulation of strategic vectors for the prospective development of creative and cultural competencies of students in artistic specialties.

Results and Discussion. The Strategy for Higher Education Development in Ukraine for 2022-2032 identifies, that rapid changes occurring in society and technology, require from specialists both professional and general competencies, which include the ability to learn, think critically and systematically, program, work in conditions of uncertainty, creativity, intersectoral communication, multiculturalism, and proficiency in a number of languages, including English (Order No. 286, 2022).

Currently, creativity and multiculturalism are among the defining competencies capable of responding contemporary globalization challenges and meeting the demands of both domestic and international labor markets.

To achieve the research goal, four steps are to be taken: step 1 is to analyze the place of creative and cultural competencies in the Standards of Higher Education; step 2 is to determine the peculiarities of ensuring the formation of cultural and creative competencies in the educational-professional programs for specialists in artistic specialties; step 3 is to clarify the features of creating educational-creative environment in educational institutions, as well as the effectiveness of fostering creativity in education seekers through empirical research methods; step 4 is to identify prospective directions for improving the system of training specialists in artistic specialties in higher education institutions of Ukraine regarding the formation of creative competencies.

Step 1: Standards of Higher Education

The main direction of educational activity of higher education institutions in Ukraine is determined by the Standards of Higher Education, which are based on a competency-based approach. To form perception of the place of cultural, creative, and (innovative) competencies in the system of defining and assessing the quality of content and results of educational activities of higher education institutions, a systemic-differentiated approach to the Standards of Higher Education was used. Four artistic specialties - 021 Audiovisual Arts and Production, 024 Choreography, 025 Musical Arts, 026 Performing Arts at the first (bachelor's), second (master's), and third (educational-scientific) levels of higher education - were selected for analysis. Three levels of education were considered to track the sequence of the specified competencies formation.

For artistic specialties, the development of creative competencies is an integral part of professional training. Markevičiūtė I., & Jucevičius G. (2013) identify four groups of creative competencies - personal, professional, common, and instrumental, noting that all these competencies can improve both short-term and long-term performance through personal desire to learn, creative decision-making and problem-solving, strategic and systemic thinking, as well as teamwork and collaboration to achieve excellent results (Markevičiūtė & Jucevičius, 2013, p. 48).

The wider is the range of acquiring such skills and abilities, the higher is the professional's competitiveness. The Standards of Higher Education envisage the development of creative and cultural competencies, which may not be exclusively related to professional activities and are aimed at a wide range of applications in the future career and life orientation of the professional:

– ability to generate new ideas (creativity);
– ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the

history and regularities of the subject area development, its place in the general system of knowledge about nature and society, as well as in the development of society, equipment and technologies, using various types and forms of physical activity for active recreation and maintenance of a healthy lifestyle;
– ability to understand and evaluate relevant cultural and artistic processes;
– appreciation and respect for diversity and multiculturalism;
– awareness of the role of culture and art in the development of social relationships;
– ability to analyze the main stages, identify patterns of historical development of the arts, stylistic features, types and genres, basic principles of coordinating historical and stylistic periods of world artistic culture (Ministry of Education and Science of Ukraine, 2023).

Table 1, based on the Standards of Higher Education, provides examples of specialities for which the formation of creative and cultural competencies is envisaged/not envisaged, which may not exclusively relate to professional activities.

Table 1.
Creative and cultural competencies in the Standards of Higher Education

The level of higher education	Field of knowledge	Speciality	Creative competencies: + (provided); - (not provided)	Cultural competencies: + (provided); - (not provided)
First (Bachelor's)	02 Culture and Art	021 Audiovisual Arts and Production	+	+
		024 Choreography	-	+
		025 Music Art	+	+
		026 Performing Art	-	+
Second (Master's)	02 Culture and Art	021 Audiovisual Arts and Production	+	-
		024 Choreography	+	-
		025 Music Art	+	-
		026 Performing Art	The standard is not approved	
Third (educational-scientific)	02 Culture and Art	021 Audiovisual Arts and Production	The standard is not approved	
		024 Choreography	-	-
		025 Music Art	-	-
		026 Performing Art	The standard is not approved	

Source: prepared by the authors.

Based on a detailed analysis of the Higher Education Standards concerning the formation of creative and cultural competencies in the aforementioned specialties, the following conclusions can be drawn:

– creativity is a component of the professional training of arts specialists, which determines little attention to the formation of creative competencies. Therefore, "the ability to generate new ideas (creativity)" (Standard) as a general competency is not provided at all levels of higher education and for all

specialties. Such approach does not consider the argument highlighted by Markevičiūtė I., & Jucevičius G. (2013), stating that creative competencies, creativity, and innovation should be consistently emphasized (Markevičiūtė & Jucevičius, 2013, p. 50);

– cultural competencies are envisaged for all specialities at the first (bachelor's) level but not for at the second (master's) level. It has been identified that for the specialty 024 Choreography, the formation of cultural components is provided in both the list of general and specific (professional, subject-specific) competencies, whereas for the specialities 021 Audiovisual Arts and Production, 025 Music Art, 026 Performing Art, it is only included in the list of general competencies. This indicates a certain dichotomy in the strategy of training specialists in artistic specialties;

– the holistic two/three-tier system for developing creative and cultural competencies across the first, second, and third levels of higher education is not observed. A continuous cycle of mastering creative and cultural competencies ensures the deepening of relevant skills, meeting the needs of the labor market. For instance, in a collective work, Koval V., Kushnir A., Vorona V., Balakirieva V., Moiseienko N., & Golubenko N. (2023) emphasizes the necessity of implementing continuous pedagogical influence on the development of learners' educational and research activities (Koval et al., 2023, p. 78), including creativity. Scholars note that training competitive and highly qualified specialists is a necessary task for higher education institutions, as future workers should be prepared for self-development, continuous self-realization, the ability to make non-standard decisions in various situations, be engaged in innovative processes, and organize creative training considering scientific and educational innovations (Koval et al., 2023, p. 78).

Therefore, in the studied Standards of Higher Education for artistic specialties, there was no sufficient reflection of the formation of creative and cultural competencies.

Step 2: Educational-professional programs

Isouard G., Martins Jo. M., & Friedman L. note that creativity is the starting point when it comes to innovation, and this should be taken into account when planning educational programs that foster creativity and innovative thinking (Isouard et al., 2015, p. 258).

To identify the characteristics of ensuring the formation of cultural and creative (innovative) competencies in the educational-professional programs of arts specialists, 83 educational-professional programs of four arts specialties were analyzed - 021 Audiovisual Arts and Production, 024 Choreography, 025 Music Art, 026 Performing Art, in 5 higher education institutions (Kharkiv State Academy of Culture (Ukraine, Kharkiv), Kharkiv National University of Arts named after I. P. Kotliarevsky (Ukraine, Kharkiv), Odessa National Music Academy named after A. V. Nezhdanova (Ukraine, Odessa), Ivan Franko National University of Lviv (Ukraine, Lviv), Kyiv National University of Theatre, Cinema and Television named after I. K. Karpenko-Karyi (Ukraine, Kyiv). Among them, 50 are at the first (bachelor's) level and 33 at the second (master's) level.

During the formation of educational-professional programs, educational institutions are guided by the Standards of Higher Education for the specialities for which they are approved. In the vast majority of educational programs, the formation of creative and cultural competencies takes into account the Standards of Higher Education, as they are used to determine and evaluate the quality of the content and results of higher education (research) institutions' educational activities during institutional accreditation and program accreditation (Ministry of Education and Science of Ukraine, 2017, p. 1). On the one hand, this ensures compliance with the recommendations for the formation of educational programs and directs higher education institutions to consider the need for learners to acquire creative and cultural competencies. On the other hand, it leads to the transfer of certain substantive collisions into educational programs in the list of general and specific (professional) competencies. For example, the general competency "ability to generate new ideas (creativity)" is absent in the Standards of Higher Education for the speciality 026 Performing Art, and accordingly in the educational programs for this speciality in some of the analyzed programs. Such inconsistencies exist not only in comparing several higher education institutions. In the same educational institution for the speciality 026 Stage Art, there are educational programs in which this competency is provided, and in which it is not provided.

At the same time, some educational programs for the speciality 025 Music Art, compared to the Standards of Higher Education, expanded the list of cultural competencies. Such abilities as "the ability to demonstrate tolerance and respect for cultural diversity" (Kudrych et al., 2023, p. 11), "the ability to show respectful and careful attitude to the historical heritage of the world and Ukrainian culture, values, and traditions" (Sakhno et al., 2023, p. 10) are added to the existing competencies. This indicates different approaches to assessing the role of creativity and cultural competencies in the training of specialists. A similar circumstance is pointed out in the research by Isouard G., Martins Jo. M., & Friedman L. (2015). The authors note that a review of studies reporting on teaching creative and innovative thinking indicates that there is no clear consensus on how these competencies are formed and what should be included in the curriculum (Isouard et al., 2015, p. 259).

In the analyzed educational programs, there is an imbalance in the number of educational components, which contribute to the formation of creative and cultural competencies. For example, the ability to generate new ideas (creativity) at the first (bachelor's) level is ensured by 2 to 17 educational components in educational programs for one specialty; cultural competencies - from 1 to 21 educational components. In addition to quantitative characteristics, the list of educational components that shape creative skills, abilities, and ways of thinking varies in content. In addition to professional training, these include disciplines of the social-humanitarian cycle ("Philosophy", "Jurisprudence", "Copyright Law"), pedagogical ("Pedagogy", "Teaching Methodology of Professional Disciplines", "Performance Practice", "Pedagogical Practice"), and others.

The issue of forming creative and cultural competencies in the elective education component cycle, which is an integral part of shaping an individual educational trajectory, remains unresolved. According to the Law of Ukraine (2014) "On Higher Education" (Article 62, paragraph 1, subparagraph 15), "the choice of educational disciplines within the framework provided by the respective educational program and the work curriculum, to the extent of not less than 25 percent of the total number of ECTS credits provided for this level of higher education" (The Law of Ukraine 1556-VII, 2014). Of course, students can choose disciplines, which involve acquiring these competencies, but the envisaged, systematic formation of them is possible only within the framework of mandatory educational components. Educational institutions should take this into account when developing educational programs.

Therefore, there is no system for the sequential formation of cultural and creative competencies in the analyzed educational-professional and educational-scientific programs of artistic specialties.

Step 3: Educational-Creative Environment

During the implementation of educational activities, higher education institutions need to rely on the regulatory framework, approach the development of educational-professional programs thoughtfully, and create an inclusive and open educational environment where appropriate conditions will be provided for the implementation of high-quality professional training. Several key aspects influencing the formation of creative and cultural competencies in the educational environment should be considered.

During the training of students in artistic specialties, higher education institutions should ensure the functioning of an educational-creative environment that encourages the implementation of individual creative projects, the adoption of unconventional solutions, openness to new approaches in problem-solving, tolerance, and the actualization of such socially significant issues as armed conflicts, violence based on racial, ethnic, or religious intolerance, aggravation of environmental problems, and so on.

Markevičiūtė I., & Jucevičius G. (2013) defined a simple yet meaningful and effective formula for developing students' creative skills - creative competencies are cultivated in a creative work environment (Markevičiūtė & Jucevičius, 2013, p. 49). Researchers point at three important components that form the basis of a creative workplace environment: 1) support for leadership and innovations; 2) personal knowledge that nourishes the leader's creativity; 3) requirements and duties necessitating the adoption of creative solutions (Markevičiūtė & Jucevičius, 2013, p. 49). Such an approach and the demands of employers and external stakeholders should be taken into account by educational institutions in preparing future professionals of artistic specialties.

The formation of creative thinking and respect for multiculturalism should occur not only during

the study of academic disciplines. Educational institutions should stimulate the development of these skills in all types of students' learning activities - participation in student self-government, scientific and social activities, and so on. Such multifaceted improvement and practical application of creative and cultural competencies foster the "habit of excellence", which will undoubtedly serve as an advantage in the job market in the future.

The personal and professional development of higher education students, formation of competencies envisaged by educational programs, including cultural and creative competencies, take place in the environment of higher education institutions, which play a crucial role in ensuring the acquisition of quality higher education. Considering the objectives of forming cultural and creative competencies, certain transformational processes occur within the educational environment itself, which is based on the norms, traditions, and values of Ukrainian and world cultures, and also takes into account didactic requirements for the modern educational space and the necessity of developing personal qualities of future professionals, among which cultural and creative competencies play a special role, especially relevant for students of artistic specialties. Given the tasks and specifics of professional training for students of artistic specialties, we propose to consider the environment of artistic higher education institutions as educational-creative, aimed at creating optimal conditions for professional and social development of higher education students as creative, artistic individuals capable of solving complex socio-cultural problems and containing organizational (higher education standards, educational-professional and educational-scientific programs, regulations concerning the organization of the educational process, curricula), educational (scientific and pedagogical workers, higher education students, educational components), and socio-cultural components (student self-government bodies,

socio-educational activities, creative laboratories, student artistic groups, hubs, artistic spaces, concerts, competitions, festivals). It is the socio-cultural component of the educational environment of artistic education institutions that is decisive for considering such environment as educational-creative.

An important aspect of quality training for students in artistic specialties is the teacher's personal creativity. According to Marushko L., Hura A., Bryk R., Baboval N., & Karabin O. (2023), the level of the teacher's professional competence determines continuous improvement of knowledge, self-realization, and development of creative potential, which is reflected in new methods of presenting information (Marushko et al., 2023, p. 315). Korman M. (2022) considers creativity as the main factor in the teacher's personal competence, which is more characterized by internal activity than external, and is manifested by such key qualities as readiness for risk, impulsiveness, independence of judgments, critical reflection on one's own activities, and boldness in imagination, thinking, and expression (Korman, 2022, p. 35).

Qualitative characteristic of defining effective elements and strategic gaps in the implementation of the competency approach is the opinion of higher education students themselves.

Taking into account personal characteristics of the applicants themselves plays an important role in the formation of their cultural and creative competencies, primarily determining the level of creativity, which is carried out using the express method of psychodiagnostics based on the creativity questionnaire by D. Johnson, application of which aims to assess students' ability for inventiveness, unconventional thinking, originality, imagery development, transformation, etc. These indicators are associated with creativity and creative abilities.

The research results are reflected in Table 2.

Table 2.

Results of the express method of psychodiagnostics using the D. Johnson Creativity Questionnaire

Indicators of Creativity	Levels of Creativity				
	Very high	High	Average	Low	Very low
Sensitivity to the problem, preference for challenges, ability to perceive subtle, undefined, complex, contradictory features of the surrounding world	12,5 %	30 %	37,5 %	15 %	5 %
Ability to generate and express a large number of different ideas, images, hypotheses, and solutions to tasks	20 %	27,5 %	40 %	12,5 %	0 %
Application of various strategies, problem-solving approaches, ability to propose different types and categories of ideas	12,5 %	32,5 %	47,5 %	5 %	2,5 %
The ability to complement an idea with various details, develop, and refine the idea-image	25 %	27,5 %	37,5 %	10 %	0 %
Originality, unconventional thinking and behavior, unique outcomes of the activity, individual style	25 %	25 %	37,5 %	12,5 %	0 %
The ability to transform and develop images and ideas, dynamism, inventiveness	15 %	30 %	37,5 %	15 %	5 %
The capability for transformation, development of images and ideas, dynamism, and inventiveness	37,5 %	35 %	22,5 %	5 %	0 %
Independence of thinking, judgments, behavior, responsibility for a non-standard position, behavior style based on self-reliance, self-sufficiency of behavior	22,5 %	35 %	35 %	5 %	2,5 %

Source: prepared by the authors.

The research results indicate that the surveyed education applicants demonstrate a predominantly average level of creativity, while minimal indicators of low and very low levels of creativity are observed. This suggests a sufficient level of creativity among students of artistic specialties and underscores the necessity to review application of the competency-based approach in the preparation of learners, the content of educational and professional programs, as well as the quality assessment of the creativity level among all participants in the educational process.

To clarify the peculiarities and prospective directions for forming educational-creative environment in the educational institution, a survey and analysis among the students of the Kharkiv State Academy of Culture was conducted using an author-made questionnaire. The questionnaire included inquiries concerning creativity, its role and place in educational, extracurricular, and subsequent professional activities, and pertained to specific components of the artistic institution's educational-creative environment: organizational, educational, and socio-cultural (creative) ones.

Here are the most significant results of the analysis:

− 87.5% of respondents noted that all participants in the educational process should be creative;
− 70% of respondents believe that creativity is very important for learning;
− 45% of respondents are generally satisfied with the level of creativity in the educational institution where they study;
− 97.5% of respondents consider creativity to be very important for their future professional activities.

In your opinion, is creativity important for further professional activity?

- Yes, very important
- Rather yes than no
- Rather no than yes
- No, not important

97,5%
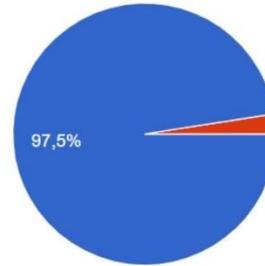
Fig. 1. Importance of Creativity in Future Professional Activities.
Source: prepared by the authors.

These indicators demonstrate the importance of creativity for students and confirm our assumption concerning the increased attention to the formation of creative competence in the educational process.

Regarding the educational component of the educational-creative environment, the following survey results were obtained: 52.5% of respondents believe that creativity is shaped by the disciplines of the professional cycle; according to 37.5% of respondents, enhancing creativity is necessary for all disciplines they learn; 37.5% of respondents noted that personal creativity is demonstrated by teachers who teach the cycle of professional disciplines. The survey results demonstrate that only about 50% of students realize that the aim of professional educational components is forming creative competence.

What disciplines form creativity during education?

- general education disciplines
- professional training disciplines
- elective courses
- all disciplines
- none
- professional training disciplines, as well as elective courses that we do not have

35%

52,5%
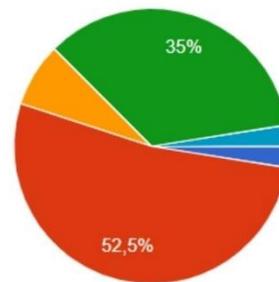
Fig. 2. Disciplines that foster creativity during education.
Source: prepared by the authors.

The content of which disciplines needs the creativity to be increased?

- general cycle disciplines
- professional training disciplines
- elective courses
- all disciplines
- none
- professional training disciplines, as well as elective courses that we do not have

37,5%   12,5%

25%   20%
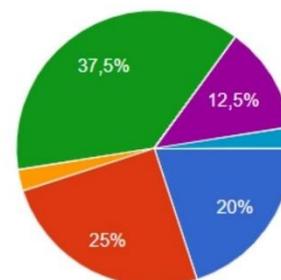
Fig. 3. Disciplines that need to enhance creativity in their content.
Source: prepared by the authors.

Do the teachers demonstrate their personal creativity?

- Yes, all teachers demonstrate creativity
- Only those who teach disciplines ...
- Only those who teach disciplines ...
- Only those who teach elective courses
- All teachers demonstrate creativity
- Sporadic
- Some teachers, regardless of discipline
- Some teachers, but it depends on personality
- Some
- I don't follow it
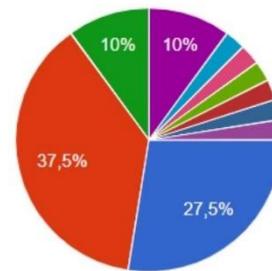
Fig. 4. Teachers' personal creativity.
Source: prepared by the authors.

Regarding socio-cultural component of the educational-creative environment, only 67.5% of respondents consider creativity outside of academic activities - in student self-government, scientific, creative-performing, and public work - to be very significant. This indicates the importance of strengthening this particular direction in ensuring the formation of creative competence.

In your opinion, is creativity important outside of educational activities - in student self-government, scientific and social work?

- Yes, very important
- Rather yes than no
- Rather no than yes
- No, not important
- Then creativity will lose its meaning and become commonplace
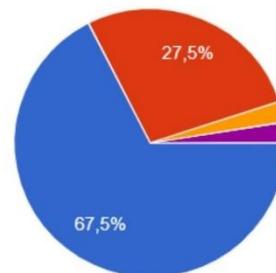
Fig. 5. Creativity in extracurricular activities.
Source: prepared by the authors.

In identifying several key factors influencing the formation of a creative educational environment, respondents indicated the following: fostering creativity during the study of academic disciplines (57.5%), personal creativity of teachers (57.5%), additional training, seminars, workshops, courses held outside the study of disciplines (45%), support for creativity development by teachers and institution administration (32.5%), and creative centers at higher education institutions - hubs, laboratories, etc. (30%).

Based on the conducted research, the following conclusions can be drawn:

− students consider creativity as an important component of academic, extracurricular, and future professional activities; however, only

52.5% of respondents believe that creativity is fostered by disciplines within the professional cycle, and 37.5% point to the personal creativity of these instructors, indicating the necessity to strengthen both in vocational training and the level of personal creativity of instructors in all disciplines;

− factors influencing formation of the educational-creative environment of an educational institution include creativity during the study of academic disciplines, the personal creativity of instructors, additional training, seminars, workshops, courses held outside the study of disciplines, as well as support for creativity development by teachers and institution administration, creative hubs at higher educational institutions - hubs, laboratories, participation in the work of student self-

government, scientific and public activities, etc.

Step 4: Suggestions

Formation of creative competencies in students of artistic specialties, as a priority direction for improving higher education system, can be realized considering the aspects highlighted NACCCE report. (1999). This involves a systemic approach to creative and cultural education, the promotion of higher standards in creative and cultural education across all disciplines, ensuring equality between the arts, humanities, and other areas of education, and stimulating partnerships between educational institutions (NACCCE report, 1999, p. 16).

We believe it is reasonable to consider the following aspects based on the analyzed scientific works and conducted research, in the process of forming creative competencies in students of artistic specialties:

−   in the regulatory framework of the education sector, particularly in Higher Education Standards, it is necessary to provide for a continuous three-tier (first, second, and third levels of higher education) cycle of forming creative competencies for all artistic specialties;
−   strengthen the focus of educational components of the general and professional cycle on ensuring creative competencies formation;
−   develop educational-creative environment in higher education institutions to provide conditions for the creative self-realization of students;
−   enhance the level of teachers' personal creativity, particularly through the exchange of experience between educational partner institutions, attending trainings, courses, etc.;
−   conduct periodic surveys of all participants in the educational process concerning the quality of a creative environment formation in the educational institution and formation of creative and cultural competencies, etc.

Conclusions

Formation of creative and cultural competencies enhances the quality of educational activities, increases competitiveness, and ensures a high level of professional training, opening up prospects for their further professional activities. The place of cultural, creative, and innovative competencies in the system of defining and assessing the quality of content and outcomes of educational activities of higher education institutions is identified using the example of Higher Education Standards for four artistic specialties at three levels of higher education. Special attention is paid to creative and cultural competencies aimed at a wide range of applications in the future career and life orientation of specialists. Understanding of the features of ensuring the formation of creative competencies in educational-professional programs for specialists in artistic specialties is developed. The role of the creative-cultural educational environment in the educational institution and its impact on participants in the educational process are highlighted. It is clarified that the quality training of specialists in artistic specialties should be based on providing creative and cultural education based on a competency-based approach. It is revealed that the formation of creative competencies is not limited to studying disciplines but includes a wide range of self-realization opportunities for learners in the educational environment and depends on the level of personal creativity of both the teacher and the learner. Problematic issues and strategic directions for the formation of creative competencies in learners of artistic specialties are detected.

Strategic directions were identified for developing the creative competence of students in artistic specialties, which include the need to: 1) enhance the creative component of the educational content in both general and professional cycles of the curricula for artistic specialties; 2) systematize activities of higher education institutions in increasing the level of personal creativity among faculty; 3) conduct monitoring of the creative educational environment formation in the artistic higher education institution with the involvement of all participants in the educational process; 4) implement innovative methods and forms of artistic project activity. These directions will ensure the development of the educational-creative environment of the artistic higher education institution by incorporating best global practices from the cultural industries. For example, the creation of cultural and artistic centers and hubs (such as the "Bursa" cultural-artistic space at Kharkiv State Academy of Culture, the Ukrainian-Moroccan Cultural Center), collaboration with cultural-artistic partner institutions ("Genau" Ukrainian cultural center, Ukrainian House in Hamburg) to introduce global experience in organizing a

creative artistic environment, and enhancing professionalism of students in artistic specialties through the practices of implementing creative projects (the folklore project "Code of the Nation", artistic events "With Ukraine in the Heart", "The Road Home", "Wave 19.86"), and flash mobs ("Ukrainian Embroidery Day", "Thank You, Mom"), etc.

Prospects for further research include analyzing the development of cultural competencies in learners of artistic specialties, as well as identifying the specifics of forming creative competencies in learners of cultural-informational profile education in the conditions of online learning in higher education institutions of Ukraine.

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Study of the effectiveness of modern learning technologies in preparing future professionals

Дослідження ефективності новітніх технологій навчання у підготовці майбутніх фахівців

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Abstract

This study investigates the effectiveness of contemporary learning technologies in equipping prospective professionals with the necessary skills. The objective is to assess how modern teaching tools enhance the preparation of future experts in diverse fields. The methodology involves a comparative analysis between traditional teaching methods and the integration of advanced technologies in educational settings, measuring learning outcomes and student engagement. The findings reveal a significant improvement in students' retention of information, critical thinking abilities, and practical skill acquisition when exposed to modern learning tools. Moreover, the study highlights the importance of adapting teaching practices to align with technological advancements to better prepare future

Анотація

Це дослідження вивчає ефективність сучасних технологій навчання у підготовці майбутніх фахівців. Метою статті є оцінка того, як сучасні навчальні інструменти покращують підготовку майбутніх експертів у різних галузях. Методологія включає порівняльний аналіз між традиційними методами навчання та інтеграцією передових технологій на освітніх площадках, вимірюючи навчальні результати та залученість студентів. Результати дослідження демонструють значне поліпшення у запам'ятовуванні інформації студентами, розвитку критичного мислення та набутті практичних навичок під впливом сучасних навчальних інструментів. Крім того, дослідження підкреслює важливість адаптації навчальних практик до відповідності з технологічними досягненнями для кращої

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professionals for the evolving demands of the workforce.

Keywords: learning technologies, prospective professionals, modern teaching tools, skill enhancement, educational preparation.

підготовки майбутніх фахівців до змінних вимог на ринку праці.

Ключові слова: технології навчання, майбутні фахівці, сучасні навчальні інструменти, підвищення навичок, освітня підготовка.

Introduction

The landscape of education is continually evolving, driven by advancements in technology that have revolutionized the way we learn and prepare for the future. In this context, the study of the effectiveness of modern learning technologies in preparing future professionals takes center stage as we seek to understand how these tools shape the educational experiences of students and equip them with the skills necessary for success in their chosen fields. The *purpose* of this research is to delve deep into the impact of innovative learning technologies on the learning outcomes and skill development of individuals pursuing various professions, from medicine to engineering, from business to the arts. We will showcase innovative teaching practices from various countries and evaluate their effectiveness.

The justification for this study lies in the increasing reliance on digital platforms, virtual simulations, adaptive learning systems, and other modern tools that have reshaped traditional teaching methods. As educators and institutions strive to keep pace with the demands of a rapidly changing world, it becomes crucial to critically evaluate the effectiveness of these technologies in preparing students for the challenges and opportunities that lie ahead. By examining the intersection of technology and education, we can uncover insights that will not only inform pedagogical practices but also drive innovation in professional development strategies.

Throughout this study, we will explore the multifaceted dimensions of modern learning technologies, from their role in personalized learning experiences to their potential impact on collaborative learning environments. By assessing their efficacy in fostering critical thinking, problem-solving skills, and creativity, we aim to provide a comprehensive overview of how these tools can enhance the educational journey of future professionals. Furthermore, we will analyze the challenges and opportunities associated with the integration of technology in education, shedding light on best practices and potential areas for improvement.

The subsequent sections of this paper will delve into the methodology utilized to evaluate the effectiveness of modern learning technologies, presenting a detailed analysis of the research design, data collection methods, and analytical framework employed. We will then proceed to discuss the findings derived from this study, drawing connections between the use of technology and its impact on student learning outcomes. Finally, we will explore the implications of these findings for educational practices, professional development initiatives, and the broader landscape of lifelong learning in the digital age.

Literature review

Global changes and transformations unfolding in both developed and developing nations unveil significant patterns concerning economic specifics and the level of integration into global value chains and labor division systems. The imminent robotization and automation of various sectors of the economy through artificial intelligence systems are poised to redefine the nature of work, presenting novel challenges for professionals. Technological advancements are reshaping diverse industries, including the realm of education. The education system, tasked with nurturing human capital while adapting to new challenges, is undergoing a process of modernization.

Innovative educational practices, serving as a conceptual toolbox of educational expertise, strive to systematically monitor and investigate the impact of innovation on teaching methodologies. This exploration seeks to enhance the knowledge base within international education by either complementing traditional educational approaches, adopting blended learning strategies, or revolutionizing education through novel models.

At the core of the strategic agenda for enhancing the educational policies of developed nations, aimed at addressing the training needs of emerging professions, lies a rational revamp of training programs. This entails elevating the

quality of education, implementing stringent quality assurance measures, and embracing innovative modernization initiatives.

Numerous researchers have deliberated on the revision of educational training programs to ensure their effective implementation over the medium and long term. For instance, Halász & Michel (2011) advocate for training programs within the European higher education area, emphasizing the acquisition of skills and competencies through continuous assessment, creativity, and educational innovation. The research on essential skills within school curricula and teacher training reveals a mutual policy foundation for the increasing emphasis on these skills throughout Europe. This research connects to the eight key competences for lifelong learning and school curricula in Europe, while additionally examining their implementation. The current state of policy and practice across the European Union is also analyzed. Some countries are adopting a cross-curricular theme or competence approach, while others are concentrating on creating a collective foundation of key competences. The research underscores that putting essential skills into practice in schools is challenging and necessitates a new pedagogy for skill development.

The proliferation of Information and Communication Technologies (ICT) has expanded avenues for communication within the teaching community and among students, fostering social change, and serving as a crucial tool in student preparation and professional development (Liesa-Orús et al., 2020). Their study explores the potential of social network sites in education. The study identifies challenges and opportunities in implementing these sites as educational tools. It also offers policy recommendations for their optimal use. Moreover, the findings of Manca & Ranieri (2017) underscore the pressing need for educational institutions to adapt their training programs to incorporate continuous assessment, creativity, and educational innovation, while leveraging the transformative potential of ICT to foster social change and facilitate student readiness for the evolving demands of the professional landscape.

Kácovský et al. (2023) underscore the challenge associated with the dearth of international knowledge and research in interdisciplinary curriculum development, exemplified by the cases of the Czech Republic and the Republic of Slovenia. This research used the Intrinsic Motivation Inventory to evaluate the motivation of upper secondary students during practical work. Results revealed perceived value/usefulness to be the strongest predictor, and effort invested to be a significant positive predictor. Girls expressed a lower sense of competence and felt greater pressure. To support motivational aspects of practical work, relevant topics and tools that stimulate interest should be selected. Low-challenging assignments can decrease intrinsic motivation. They assert that interdisciplinary education, as observed in subjects like "geography" and "physical education" at HEI in the Czech Republic, is a pivotal educational objective for these nations, although integration remains aspirational rather than implemented. It emphasizes the crucial need for enhanced international collaboration to address the challenge of interdisciplinary curriculum development.

Andreani et al. (2019) assert the pertinence of discussing program reorganization issues, notably the discrepancies in university programs and educational processes that impact university accreditations. Participation in the European Higher Education Area project mandates the overhaul of university programs in alignment with the project goals to secure accreditation, affording students the benefits of the project's offerings. These findings spotlight the importance of addressing program reorganization issues to ensure alignment with accreditation standards.

In addition to the discourse on program restructuring, the international educational community underscores the increasing prominence of computer technology in pedagogy. A study by Haleem et al. (2022) reveals a marked surge in the use of technical devices in school and university classrooms. The authors believed that incorporating digital technology into classrooms involves utilizing various gadgets and software tools to aid students in their learning. The implementation of technology greatly decreases repetitive tasks for teachers, ultimately saving valuable time. Furthermore, students develop responsible technology usage habits, preparing them for a lifetime of learning while simultaneously allowing them to study at their own pace. The digital classroom leverages electronic devices and software to facilitate learning, enabling students to effectively track their progress and learn more efficiently. With the assistance of modern technology, schools can make informed decisions for the long-term, promote growth, and simultaneously address environmental concerns.

Computers and technology are increasingly viewed as "mobile" owing to the prevalence of portable devices. The digitalization trend is evident in the diverse array of computers available, such as laptops.

In today's rapidly changing society, higher education institutions have a crucial role to play in driving innovation. It is evident from various studies that universities are extensively adopting innovative Virtual Reality (VR) teaching techniques, which can be effectively utilized in a dedicated VR laboratory. Investing in VR technology can aid in the diffusion of technology and is a smart move for higher education institutions. To ensure the successful implementation of innovative approaches, it is essential to provide educators with in-house support for content creation and to develop and deliver comprehensive VR training and educational frameworks to ensure high-quality content delivery. Positive interactions with VR technology can also help students continue to innovate as they enter the workforce. (Marks & Thomas, 2022).

University programs are evolving to incorporate the use of computers and technological devices, reflecting a global trend towards digital integration in education. The adoption of teaching practices utilizing mobile devices, such as laptops, has witnessed substantial growth across diverse nations. Access to laptops among today's students varied significantly, ranging from 92% to 95% in Japan (Hirata, 2022), and 73% in Denmark. Also, a study spanning Italy, Portugal, Austria, and Denmark sheds light on the foremost challenges, including compatibility issues, file size constraints, and subpar user interfaces. To enhance the user experience, it is imperative that developers, manufacturers, and content providers prioritize compatibility, minimize file sizes, and design intuitive interfaces. The study further suggests that learners should be provided with comprehensive information while acknowledging the impact of age on multimedia interactions (Mazohl & Makl, 2023). Moreover, several countries, including the Netherlands, Spain, Israel, Australia, Chile, Lithuania, Singapore, and Greece, demonstrated a noteworthy increase in the proportion of students with access to laptops exceeding the amount from the previous years (Palacios-Rodriguez et al., 2023). This surge in student access to laptops is regarded as a pivotal facet of educational innovation in numerous countries. This surge in student access to laptops signifies a significant advancement in

educational innovation globally, highlighting the growing integration of digital technologies in university programs.

In 2017, Muhammad T. Al-Hariri and Abdulghani A. Al-Hattami elucidated in their study, drawing on the example of the University of Dammam in Saudi Arabia, that laptops (50%) and smartphones (42%) are the most prevalent devices utilized by students, followed by tablets (7%) and desktop computers (0.5%) (Al-Hariri & Al-Hattami, 2017). Leveraging technological devices for learning has proven to be efficacious and instrumental in attaining educational objectives. According to Blau et al. (2020), the incorporation of smart mobile devices, such as smartphones, tablets, and tablet computers, in educational instruction has bolstered self-regulation in the learning process and heightened student motivation. They underscored that the primary determinant in effectively leveraging mobile devices in the classroom hinges on teachers' beliefs and acceptance of the technology. It shows the significant impact of technological devices, particularly laptops and smartphones, in enhancing learning outcomes and student motivation within educational settings. Moreover, the importance of teacher acceptance and utilization of mobile technology underscores its potential as a valuable tool in modern pedagogy.

Educators play a pivotal role in either facilitating or impeding the integration of mobile devices in educational settings. Following Patil (2023) teachers have highlighted perceived challenges in utilizing mobile devices, citing concerns over their instability, inconvenience, and potential adverse health effects with prolonged usage. Still, educators recognize the transformative potential of innovative technologies, particularly computer modeling, across various academic disciplines at all educational levels globally. The University of Florida's "AI Across the Curriculum" program aims to equip students with real-world AI skills and knowledge. Using student learning outcomes and rubrics, the program evaluates its effectiveness and assesses its six initiative-based goals. The AI curriculum model is innovative, transformative, and accessible across all colleges and majors across campus (Southworth et al., 2023). The versatility of computers in education is underscored by their capacity to provide a platform for students to engage in practical exercises and develop expertise in specific tasks in a risk-free environment. For instance, the pedagogical strategy of "simulation play" stands out as an

effective method of utilizing computers for learning, often complemented by other instructional practices. Guided by didactic principles emphasizing rigor, accessibility, and visual clarity in educational content, the utilization of computer modeling has surged in popularity in many countries. Notably, in OECD countries between 2019 and 2022, there was an average 4% increase in students regularly engaging in computer modeling (Hu & Wang, 2022). China recorded one of the highest adoption rates, with approximately 92.2% of students using computer modeling for educational purposes (Zhou et al., 2022). Conversely, Germany observed a significant 42-percentage-point decrease in the prevalence of this educational practice during 2021.

Educators play a crucial role in the integration of mobile devices in education, although they face challenges such as concerns over instability, inconvenience, and potential health effects. Despite these challenges, educators recognize the transformative potential of innovative technologies, particularly computer modeling, across various academic disciplines globally.

Incorporating virtual training programs into the educational process has engendered contrasting trends within the pedagogical community. These trends are characterized by the increasing popularity of virtual training programs juxtaposed with a decline in the overall number of practical classes featuring an experimental component. Notably, across OECD countries, there has been a collective reduction of in the hours dedicated to practical training involving experiments and hands-on research opportunities (Li, 2022). Consequently, in 2023, only an average of 16% of students were able to engage in their own scientific experimentsc (Pilz & Sakano, 2023). Specifically, countries like Colombia, Chile, and Indonesia experienced a notable decrease in hands-on hours dedicated to science experiments in 2023 compared to 2019, with declines exceeding 10 percentage points (Zhai & Pellegrin, 2023). China, Turkey, Ireland, and Finland, exhibited an increase in practical training incorporating experiments (Dong & Chang, 2023). Through the use of mobile devices and computer modeling, students can learn in a safe and immersive environment, developing practical skills and self-regulation. Despite the challenges of integrating technology into teaching practices, educators are empowered to ensure that their students benefit from modern learning technologies. As we continue to explore the balance between theoretical knowledge and hands-on experience, the findings of previous research studies serve as a guidepost for charting a path towards preparing future professionals for success.

Methodology

This study on the effectiveness of modern learning technologies in preparing future professionals employs a methodological framework that integrates theoretical techniques of comparative and systemic analysis, supplemented by comprehensive statistical data analysis. The analysis is conducted across a sample comprising individual countries within the European Union and the United States, encompassing their educational systems and practices. Due to that, there are several limitations to consider: generalizability as the research focuses primarily on educational systems within the European Union and the United States, which may limit the generalizability of the findings to other regions with different educational contexts, cultures, and socioeconomic factors; sampling bias as the study primarily relies on data from educational institutions in countries such as Germany, France, the United Kingdom, and the USA. This could potentially overlook the experiences and perspectives of students and educators from underrepresented regions or marginalized communities within these countries. However, it can be considered justified, as these countries are leading in the world.

We selected countries based on factors, such as their prominence in educational research, technological infrastructure, and cultural diversity. Additionally, convenience sampling was utilized to gather data from readily available sources, such as publicly accessible educational databases, reports, and statistical sources. This approach facilitated efficient data collection, especially given the scope and breadth of the study.

The research delves into methodological and analytical literature, leveraging insights from a plethora of international publications, scientific articles, and pedagogical periodicals. Statistical data from educational institutions in countries such as Germany, France, the United Kingdom, and the USA are scrutinized to assess the implementation and impact of modern learning technologies on student outcomes and preparedness for professional roles in the evolving job market. Furthermore, the study incorporates a comparative analysis of key performance indicators, including student engagement levels, academic achievement

metrics, and post-graduation employment rates, to discern the efficacy of modern learning technologies in enhancing the skill sets and competencies of future professionals across various educational contexts, document analysis, such as educational policies, curriculum frameworks, research reports, and academic literature to gather qualitative data on the current state of education, and challenges in pedagogy and technology integration.

This comprehensive approach aims to provide a nuanced understanding of the implications and effectiveness of modern learning technologies in shaping the educational landscape and preparing students for successful careers in an increasingly digitalized and dynamic global economy.

Results and discussion

The integration of critical thinking technologies within established pedagogical practices across the global educational landscape is increasingly prominent, possibly driven by the imperative to scrutinize the credibility of vast information streams. Within the educational domain, methodologies such as collaborative group work, interactive discussions, idea generation through brainstorming, and honing of public speaking skills are widely implemented. Presenting a problem, analyzing it from diverse perspectives, and articulating one's stance serve to cultivate students' investigative aptitude and critical thinking acumen.

Educational institutions strive to create pedagogical and didactic environments conducive to effective learning processes, recognizing that the essence of transformative thinking technologies lies in fostering analytical skills, decision-making abilities, comprehension of decision ramifications, exploration of alternative problem-solving approaches amidst uncertainty, idea generation, creativity, and communication proficiencies. Educators endeavor to determine the optimal balance within curriculum frameworks to nurture these competencies. Denmark stands out for its extensive adoption of critical thinking development technologies, exemplified by the notable disparity in students' capacity to articulate and elaborate on their ideas (Caeli & Bundsgaard, 2022), with 68% proficiency in Denmark contrasting starkly with a mere 7% in Spain (Lee & Hwang, 2022).

A prevailing concern highlighted by numerous researchers pertains to the quest for pedagogical

innovations and their integration within mathematical and natural sciences education. Data derived from the international education quality monitoring study TIMSS (Trends in Mathematics and Science Study) and teacher feedback have unveiled concerning trends surrounding mathematical education. Between 2020 and 2021, there was a notable 13-percentage point decline in students possessing knowledge of formulas and principles required for solving routine mathematical and scientific problems (Setiana & Purwoko, 2021). The pedagogical challenge lies in the balance between factual memorization of formulas, laws, and theories, crucial for technical proficiency in problem-solving, and practical application to consolidate conceptual understanding, representing a vital facet of directed learning strategies.

The retention of facts, rules, and methodologies remains intrinsic to teaching methodologies across various contexts, often aligning with 'traditional' and relatively 'teacher-centered' instructional approaches. While memorization techniques endure in educational systems like those in China, India, Pakistan, Japan, Turkey (Mouronte-López et al., 2023), and others, they are supplemented with gamified learning practices to enhance engagement and retention (Mohammid, 2017). The conventional memorization method, although valuable as a supplementary tool, faces criticism for inducing sustained disinterest among students when excessively utilized in educational settings.

Diverse utilization rates of memorization methodologies are evident globally, with Ireland showcasing good reliance among primary school students (Ní Chléirigh, 2023). Singapore and Canada demonstrate extensive incorporation of memorization techniques in their educational frameworks. The decline in the application of formulaic memorization for problem-solving in mathematics and sciences, as indicated by TIMSS data, underscores shifting pedagogical paradigms (Saatcioglu & Sen, 2023). Varied teacher perspectives on the efficacy of memorization underscore its efficacy in delivering commendable exam outcomes (Scarpellini et al., 2021), particularly in subjects like mathematics.

The evolving landscape of educational practices has sparked discussions among educators regarding shifts in homework assignments over the past decade. Lithuania and Canada, specifically Quebec, have seen a notable increase

in homework time, particularly in subjects like mathematics and science (Jakavonytė-Staškuvienė & Ponomariovienė, 2023). Italy has experienced a reduction in both homework load and testing requirements (Giuliani, 2023).

In the realm of educational research, considerable attention is devoted to the gamification method, a pedagogical approach aimed at engaging and motivating students using game elements, be it through digital interfaces or traditional methods. Alharbi & Rahman (2023) suggest that gamification in education has the potential to enhance students' creative capacities by fostering greater motivation through immersive gaming experiences, contrasting traditional teaching methods where information retention is often limited to specific contexts. The integration of gamification in real-world learning environments has shown promise in enhancing student performance by employing game mechanics such as characters, points, badges, and leaderboards to sustain student interest.

While gamification has demonstrated positive impacts on student engagement and motivation, scholars like Hassan et al. (2021) caution against potential pitfalls, highlighting the detrimental effects of poor context, unsuccessful game design, and prolonged playtime on learning outcomes. It is suggested that further research is essential to mitigate these drawbacks and optimize the benefits of gamification in education.

Triantafyllou & Georgiadis (2022) observe a surge in the utilization of gamification across various non-game contexts in recent years, emphasizing its potential to enhance user engagement in online learning environments. Despite its pedagogical advantages, the negative implications of gamification warrant further investigation, particularly concerning the dynamics, mechanisms, and consequences of gamified interactions. Furthermore, contemporary trends in educational technologies underscore the rising prominence of artificial intelligence and robotics in learning environments. The integration of cloud-based artificial intelligence in distance education, as advocated by researchers Kirsch et al. (2021) and Saleem et al. (2022), signals a shift in the traditional modes of learning, transcending physical constraints like books, classrooms, and broadcast media. Leveraging artificial intelligence enables the development of internet-supported courses, with a focus on digital language learning utilizing neural networks and machine learning. This technological advancement facilitates speech-to-text conversion, pattern recognition, and image processing, effectively enhancing the implementation of hypermedia learning systems. The integration of robotics education, particularly biomicrorobotics, is becoming a cornerstone of undergraduate curricula in disciplines such as biomedical engineering. A notable study by Blanco-Claraco et al. (2023) focused on the development of a capsule robot, showcasing robot navigation techniques using tools like Webots™ modeling software. Students engaged in mastering wireless capsule endoscopy technology and created a capsule robot for navigating the human gastrointestinal tract to identify anomalies or target malignant tissues. The results underscored the effectiveness of these innovative pedagogical approaches, fostering interdisciplinary linkages and critical thinking skills.

Global experiences highlight the emergence of diverse teaching technologies, prompting government bodies, political entities, and civil organizations to investigate the efficacy and implementation of progressive pedagogical practices aligned with societal development goals. The regulation and continuous monitoring of the educational systems by state authorities are critical aspects that warrant attention. Numerous governments conduct comprehensive national assessments of educational innovations, issuing reports on educational initiatives. For instance, Halász (2021) introduced a conceptual and analytical framework for studying innovation dynamics in the education sector, utilizing data collection tools within a research project focusing on the inception and dissemination of innovations in Hungary. The study encompassed educational units across all tiers of the national education system, with educational units, such as schools and university departments, serving as the primary units of analysis. A composite educational indicator was devised to facilitate cross-sectional comparisons of innovative practices across diverse educational entities. The findings underscored heightened levels of innovation across educational systems and highlighted a correlation between innovation and academic achievements, particularly in underperforming schools.

Over the past decade, an upsurge in diverse assessment methods within educational systems has been evident globally, encompassing classroom assessments, national or regional achievement tests, and other evaluative tools integrated into pedagogical frameworks (Mohan, 2023). Countries like Slovenia and Israel have

witnessed a marked escalation in the prevalence of national and regional assessments. In countries such as Canada and Indonesia, there has been a substantial rise in reading assessments, while in Israel, a surge in mathematics and science evaluations has been observed. The proliferation of certain assessment methodologies in many nations often coincides with a decline in others.

A significant advantage of pedagogical innovations lies in the incorporation of foundational scientific principles into traditional teaching practices. The contemporary education landscape, in collaboration with the global pedagogical fraternity, actively seeks to delineate an optimal model for the evolution of educational systems. Innovations in education during transitional phases of societal development elicit interest from researchers and practitioners across diverse domains. By scrutinizing challenges through a socio-philosophical lens, key characteristics inherent in a given societal epoch can be discerned. The transitional phase inherently intertwines with the innovation process, shaping the trajectory of educational advancements.

An endeavor is undertaken to delve into the intricate dynamics of the relationship within the categorical realms of "open" and "closed" societies, transitioning from a broad socio-philosophical perspective to a focused examination on the role of innovation in education and its conditioning by the principles of an "open" society. Within the context of socialization, the distinct features of contemporary society are accentuated, encompassing elements such as instability, irreversible changes, heightened innovative activities, and varying value systems. The study delves into the specifics of developing an innovative university, underscoring the escalating significance of technical media and the imperative need to adapt to these evolving landscapes. Furthermore, it emphasizes the potential and efficacy of cultivating such universities within the educational framework of the Bologna Agreements.

While the utilization of innovations in education presents numerous advantages, international experiences have also highlighted certain drawbacks. For instance, in the realm of mathematics, the outcomes from incorporating innovative practices and IT technologies have not necessarily yielded improved results.

The efficacy of employing new technologies and novel teaching models underscores their considerable benefits. However, the limitations associated with adopting new technologies are intertwined with beliefs, the expertise of the teaching faculty, proficiency levels in modern technologies, and the individual psychophysiological attributes of students.

The examination of the effectiveness of modern learning technologies in preparing future professionals has opened up a realm of promising opportunities for further research and practical implementation. As we look ahead, this study lays the groundwork for longitudinal analyses to monitor the enduring impact of these technologies on professional development and success over time. By conducting follow-up studies, researchers can gain deeper insights into how these tools shape the competencies and career trajectories of individuals as they navigate the ever-evolving job market.

The future holds potential for the design and implementation of customized training programs that harness the most efficient learning technologies identified in this study. By tailoring educational initiatives to leverage these tools effectively, institutions can enhance the adaptability and skill acquisition of future professionals across diverse sectors. For instance, virtual reality (VR) simulations could be utilized in medical schools to provide hands-on experience in surgical procedures, preparing aspiring surgeons for real-world scenarios with greater precision and safety.

Collaborative ventures with industry stakeholders present another avenue for future development. By forging partnerships with businesses and organizations, educational institutions can ensure that their curricula remain in sync with the evolving demands of the workforce. This collaborative approach can facilitate the integration of industry-relevant skills and practices into educational programs, bridging the gap between academic learning and practical workplace requirements. For example, cybersecurity firms could collaborate with universities to co-create specialized courses that equip students with the latest techniques in digital defense, addressing the growing need for cybersecurity experts in an increasingly interconnected world.

Continued evaluation and refinement of modern learning technologies within educational settings will be vital for optimizing their efficacy and

relevance in preparing future professionals for the dynamic challenges of the global job market. By embracing innovative approaches and staying attuned to emerging trends in technology and pedagogy, educators can empower the next generation of professionals with the knowledge and skills needed to thrive in an ever-changing professional landscape.

The development of human capital unfolds within the contemporary milieu characterized by factors like instability, irreversible transformations, increased innovative endeavors, and diverse value systems. Educational paradigms are undergoing metamorphosis in response to changes in economic sectors, such as robotization, artificial intelligence systems, which subsequently redefine the nature of work. International experiences underscore the modernization of the education system in response to new challenges. The incorporation of information technology into educational practices is on the rise, manifesting in diverse methodological resources, revamped curricula, and assessment mechanisms facilitated through a plethora of digital tools and electronic devices.

Conclusions

The exploration of modern learning technologies in preparing future professionals unveils their transformative potential in enhancing educational outcomes and equipping individuals with the requisite skills for the evolving workforce. The integration of innovative tools and platforms has demonstrated a positive impact on the efficiency, engagement, and knowledge acquisition of learners across various fields. The findings underscore the importance of continual adaptation and optimization of learning technologies to meet the dynamic demands of the professional landscape. As we navigate the digital age, the effective utilization of modern learning technologies will be instrumental in shaping a workforce that is agile, competent, and equipped to thrive in an ever-evolving global economy. However, one limitation highlighted in the research is the discrepancy in students' critical thinking abilities across different countries. This discrepancy underscores the need for more comprehensive strategies to foster critical thinking skills in students, especially in regions where proficiency is low. Saying about the integration of artificial intelligence and robotics in education, it presents both opportunities and challenges. While these technologies offer new possibilities for interactive and personalized learning experiences, there are concerns about their

impact on traditional teaching methods and the need for teacher training to effectively incorporate them into the curriculum.

Thus, we would like to recommend the following suggestions: (i) *Integration of Technology in Curriculum*: Educational institutions should focus on integrating modern learning technologies consistently throughout the curriculum to enhance the learning experience and better prepare students for the future workforce; (ii) *Professional Development for Educators*: Offer continuous training and professional development opportunities for educators to effectively incorporate and utilize modern teaching tools in their instructional practices; (iii) *Personalized Learning*: Encourage the implementation of personalized learning approaches using technology to cater to individual student needs, abilities, and learning styles; (iv) *Collaborative Learning Platforms:* Promote the use of collaborative learning platforms and tools that facilitate teamwork, communication, and problem-solving skills among students; (v) *Data-Driven Instruction:* Emphasize data-driven instruction by leveraging analytics from modern learning technologies to track student progress, identify areas for improvement, and tailor teaching strategies accordingly; (vi) *Access to Technology*: Ensure equitable access to modern learning technologies for all students to bridge the digital divide and create an inclusive learning environment; (vii) *Research and Development*: Encourage ongoing research and development in the field of educational technology to continuously improve the effectiveness of modern learning tools and practices; (viii) *Alignment with Industry Needs*: Collaborate with industry partners to align educational practices with the evolving demands of the workforce, ensuring that students are equipped with the skills and competencies required for professional success.

As the findings of this study underscore the positive impact of modern learning technologies on the preparation of future professionals, it is imperative for future research to delve deeper into the specific mechanisms through which these technologies influence skill acquisition and critical thinking abilities. Additionally, longitudinal studies tracking the career trajectories of individuals who were exposed to advanced learning tools during their education can provide valuable insights into the long-term benefits of technology integration. Further research exploring the optimal blend of traditional teaching methods and modern technologies for enhanced educational outcomes

is also warranted to tailor instructional practices to meet the evolving needs of the workforce. Overall, continuous research in this area will contribute to the ongoing development and refinement of pedagogical approaches that effectively equip individuals for success in diverse fields.

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Formation of conscious citizenship in the context of rural education development

Formación de ciudadanía consciente en el contexto del desarrollo de la educación rural

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Abstract

The main purpose of the study is to analyze the prospects and threats of forming a system of the formation of a conscious citizen in the context of rural education development. The object of the study is the system of training future specialists in the context of rural education development. The scientific task of the study is to analyze the key threats to the formation of a system for the formation of conscious citizenship in the context of rural education development and forming the leveling of these threats. The research methodology includes methods of expert analysis, pairwise comparison and hierarchical ordering. As a result of the application of these research methods, the key threats to the formation of a system for training specialists for the development of conscious citizenship in the context of rural education development were streamlined. Based on a certain hierarchy, measures to counter these threats were proposed.

Resumen

El objetivo principal del estudio es analizar las perspectivas y amenazas de formar un sistema de formación de un ciudadano consciente en el contexto del desarrollo de la educación rural. El objeto del estudio es el sistema de formación de futuros especialistas en el contexto del desarrollo de la educación rural. La tarea científica del estudio es analizar las amenazas clave para la formación de un sistema para la formación de una ciudadanía consciente en el contexto del desarrollo de la educación rural y la nivelación de estas amenazas. La metodología de investigación incluye métodos de análisis de expertos, comparación por pares y ordenamiento jerárquico. Como resultado de la aplicación de estos métodos de investigación, se racionalizaron las amenazas clave para la formación de un sistema de formación de especialistas para el desarrollo de una ciudadanía consciente en el contexto del desarrollo de la educación rural. Sobre la base de una cierta

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The study is limited in that it involves analysis of a limited number of threats. It is planned to expand this list of threats in the future.

Keywords: rural education development, ecological values, conscious citizenship, sustainability of education.

jerarquía, se propusieron medidas para contrarrestar estas amenazas. El estudio tiene las limitaciones de que implica el análisis de un número limitado de amenazas. Está previsto ampliar esta lista de amenazas en el futuro.

Palabras clave: desarrollo de la educación rural, valores ecológicos, ciudadanía consciente, sostenibilidad de la educación.

Introduction

The development of modern society is impossible without the formation of civic consciousness. In the context of environmental challenges and global climate problems, as well as limited natural resources, the development of a new concept for the development of rural infrastructure with a proactive position of the public is a decisive factor in well-being and development. The formation of this concept requires, first of all, a change in the paradigm of education, its adaptation to train future specialists who are capable of not only fulfilling the responsibilities assigned to them, but also predicting and neutralizing possible environmental threats. The basis of the new concept of education should be the formation of a conscious citizenship and understanding of the importance of environmental and sustainable development of the agricultural complex.

The modern paradigm of sustainability includes maintaining an optimal balance between environmental, economic and social aspects of society's development. Compliance with these development principles guarantees the satisfaction of the needs of the current generation and socio-economic development, preserving the environment and natural resources for future generations. The implementation of this approach requires the involvement of highly qualified specialists, which once again raises the issue of improving the concept of the educational process.

The issue of improving education in the field of development of the agricultural complex and rural infrastructure implies that the student must acquire skills not only in the field of his immediate activity, but also gain in-depth knowledge in the field of environmental problems and their solutions, as well as in issues of social justice and economic efficiency. The knowledge gained will become the basis for further professional activities and decision-making aimed at modern paradigms of sustainable development of agricultural

infrastructure. Modern educational concepts actively use an interdisciplinary approach. In the context of which the advantage is the acquisition of knowledge from different fields of science. In the context of sustainable development, this approach makes it possible to combine the fundamentals of social, economic and environmental development of rural infrastructure. At the same time, an important element of the modern education system is the use of interactive teaching methods, among which methods such as project-based learning, case studies, modeling and others have already proven their effectiveness. The use of these methods allows not only to present large volumes of materials in a simplified and understandable form, but also to develop teamwork skills in students and lay the foundations for logical and creative thinking. Along with modern methods and approaches to education, an important element in the issue being studied is the development of moral guidelines and social responsibility. A high level of these character parameters will have a significant positive impact on making rational professional and personal decisions. Thus, the modern education system should encourage students about their role in society and their own contribution to the development of rural infrastructure.

Practical application of knowledge through internships, participation in community projects and volunteer programs focused on rural education development provides not only real-world experience, but also the opportunity to contribute to positive change. Self-education and professional development in the field of rural education development should become an integral part of every specialist. In a world where knowledge and technology are rapidly changing, the ability to constantly learn and adapt is critical. Effective formation of a conscious citizen ready to contribute to rural education development is only possible through close cooperation between universities, government agencies, business and public organizations. Such interaction will create

conditions for the implementation of comprehensive educational programs focused on the comprehensive development of students and their preparation for an active role in achieving rural education development goals.

In the modern world, rural education development is turning from an abstract idea into a concrete course of action for every person. Education focused on rural education development becomes the foundation for the formation of a new generation of conscious citizens ready to face the challenges of the future and ensure the rural education development of our planet.The main goal of the study is to analyze the prospects and threats of forming a system of training future specialists for the formation of a conscious citizen in the context of rural education development. The object of the study is the system of training future preschool education specialists in the context of rural education development.

The structure of the article consists of a literature review, a description of the methodology, coverage of the results, their comparison and conclusions.

Literature review

The literature review plays a key role in our research, as it provides a solid basis for analyzing and understanding the topic of forming a system for training future preschool education specialists as an important part of rural education development. Studying contemporary literature is important because it allows us to identify and analyze new trends, theoretical approaches and practical examples related to a given topic. Such a review contributes to understanding the current state of the problem under study, identifies gaps in existing knowledge, and draws attention to key aspects requiring further research. Studying modern scientific works, articles, analytical reports and other types of literature allows us to lay a solid foundation for our research and ensure its relevance and scientific validity.

Thus, in a study by Melnychuk et al. (2022) explored the importance of protecting children's rights in armed conflict and the role of public administration in this process. The authors highlight the critical need for educational initiatives aimed at raising awareness of children's rights among all sectors of society, including future professionals. This work highlights the need to integrate principles of rural education development and civic responsibility into educational curricula to develop responsible

citizenship in response to global challenges such as armed conflict. At the same time, in the study by Yuryk et al. (2021) examines the balance between the right to medical confidentiality and the employer's right to obtain information about the employee's health status, focusing on the moral and legal aspects of this issue. The authors explore how this interaction affects the provision of human rights and freedoms in the work environment, which is directly related to the formation of a conscious citizenship in the context of personal data protection. This source emphasizes the importance of developing critical thinking skills and moral understanding among future professionals, which are necessary to balance confidentiality and the need for information in a professional context.

In turn, Boshoff et al. (2020) resorted to analyzing child development programs using the DIR/Floortime method. This can provide valuable information about the outcomes and effectiveness of early childhood education approaches, which is important for understanding which programs and practices to invest in. An interesting study by Yetik et al. (2020) where the authors consider the criteria for lifelong learning in the context of open and distance education. This research may be important in understanding how to effectively use the region's resources to support such modern learning formats. Mousena et al. (2022) presents a study focusing on curriculum development that promotes citizenship and sustainability. The authors argue that modern education should include a comprehensive approach to developing students' understanding of their rights and responsibilities as citizens, as well as the knowledge and skills necessary to support the rural education development of society. This work highlights the importance of an integrated approach to education, combining theoretical knowledge with practical skills aimed at solving real-life social and environmental problems. At the same time, Barenthien et al. (2020) focus on learning opportunities for early childhood teachers and their impact on professional knowledge and motivation. This is important for understanding the effectiveness of investments in teacher training and their impact on the overall quality of early childhood education, which are important rural education development policy agendas.

In the study by Jandri et al. (2018) discusses the concept of post-digital science and education in the system of rural education development, which is important for understanding modern approaches in educational technologies and their

impact on preschool education. This source makes an important contribution to understanding how digitalization can affect educational processes and its further impact on the success of rural education development. At the same time, the study by Alazzam et al. (2023), focuses on public environmental management in the context of commercial bioeconomy development and rural education development. This provides important context for understanding the sustainability aspect of education and its potential impact on the financing of educational programs. The issue of formative learning is actively discussed in the study by Blömeke et al. (2017) This article examines the relationship between education and knowledge of preschool teachers. This source is important for assessing the impact of funding on

the quality of teacher training and, accordingly, on the quality of education. Johansson & Sandberg (2012) focus on training and knowledge development in teacher education for early childhood teachers. This helps to understand how resources can be directed to improve educational programs and teacher training. Similar to the study by Krasovska et al.(2020). The article is devoted to the training of future preschool teachers in the field of artistic and aesthetic education using contextual learning technologies. This is important for understanding how funding can influence innovative practices in early childhood education.

However, there are a number of gaps in the literature according to the issues of the article (Figure 1).
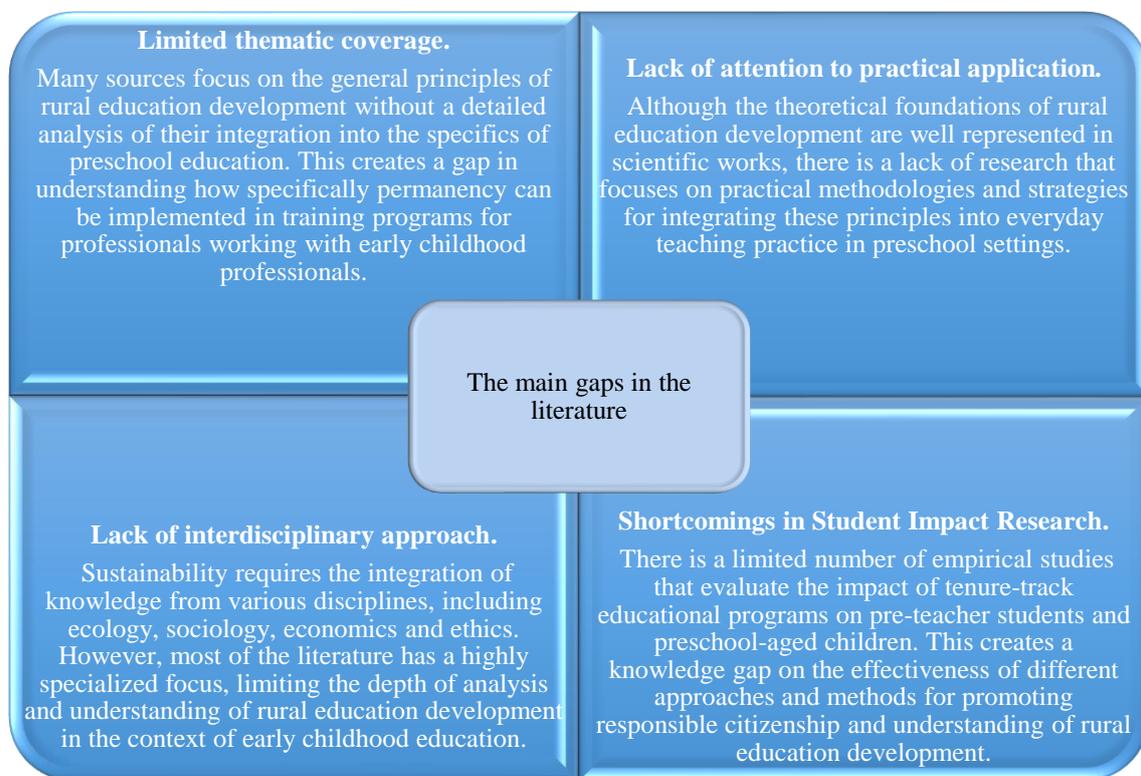
Figure 1. The main gaps in the literature according to the issues of the article
(formed by authors)

To summarize, it should be noted that, despite significant research in the field of formation the system of training future preschool education specialists for the formation of a conscious citizen in the context of rural education development, this topic still remains insufficiently studied, especially in the context of identifying and analyzing potential threats. A review of the literature showed that there are many works focused on general issues of education formation, but specific aspects related

to the identification of threats and risks for the system of training specialists for the formation of a conscious citizen in the context of rural education development in preschool education remain insufficiently studied. This indicates that there are gaps in the scientific discourse and the importance of further detailed analysis in this area, which will not only allow for a deeper understanding of the problem, but also the creation of effective strategies for solving it.

The scientific task of the study is to analyze the key threats to the formation of a system for training future preschool education specialists for the formation of conscious citizenship in the context of rural education development and forming the leveling of these threats.

Methodology

To achieve our goals, we will use a number of methods, each of which meets the objectives and goals of the article. The first method that was used in the research process is the method of expert analysis. The essence of this method is the use of expert opinions and assessments in the process for research purposes. In the context of our research, experts provided their opinions on the key threats to the formation of a system for training future preschool education specialists. The key advantage of this method is the ability to obtain data from subject matter experts from the field under study. At the same time, this also implies a key drawback of this method - the subjectivity of judgment, since we by default accept the opinion of experts as truthful. In addition, there is a risk of receiving diametrically different assessments from experts, which will complicate the compilation of a final list of threats and further research.

The next method used in the study is the paired comparison method. This method is based on conducting a systematic comparison of a certain list of factors (in our case, the key threats to the formation of a system for training future preschool education specialists) with determining the level of their importance. In the context of our research, this method will allow us to determine the impact of which threat is decisive, which will become a vector for the formation of further management strategies and policies in the field of education. The advantage of this method is the detailed structuring of problems and the possibility of specifying the assessment. At the same time, the disadvantages of this method are the limited number of factors for the list and the difficulty of determining all the relationships between a given factor. The third method is the threat hierarchy, which allows you to systematize and rank potential risks and threats. In the context of education formation, this method can be used to identify and prioritize the most significant threats. This method has the advantage of providing a clear framework for risk analysis, but the disadvantage is that it may be difficult to identify and assess all potential threats.

In addition to these methods, data analysis is also used. The essence of this method is the collection, processing and analysis of large volumes of information, including statistical data, financial reports, survey results, etc. In our study, it allows us to assess the real state of formation and identify trends and anomalies. The advantage is the objectivity and accuracy of the data obtained, but at the same time, a large volume of data can complicate their analysis and interpretation. The threat hierarchy method may be limited in its ability to accurately identify and evaluate all potential threats. In some cases, important risks may be overlooked because the ranking process is based on current understanding and available information, which may be incomplete.

Data analysis, although objective, can suffer from limitations related to data quality. Incomplete, inaccurate or outdated data may lead to incorrect conclusions. Also, analyzing large volumes of data requires large resources and specialized skills.

Experts in the field of preschool education and rural educational development are carefully chosen based on their academic contributions, practical experiences, and policy knowledge. A diverse range of perspectives is sought, considering experts from different geographical and professional backgrounds, which helps in reducing the bias inherent in expert analysis. The recruitment process often taps into academic networks and professional associations, followed by a rigorous vetting of each expert's credentials and relevance to the research questions. In the pairwise comparison process, threats to the formation of a training system for preschool educators are evaluated. Each threat is compared against others using a structured matrix where experts assess the significance of one threat over another and determine the level of importance through a scoring system. This methodical approach allows for the quantification of each threat's impact, helping to prioritize them. The process might involve several rounds of evaluation to achieve consensus among the experts, ensuring a balanced and comprehensive assessment. For the data analysis part of your study, large volumes of data including educational statistics, survey results from educators, and financial reports are collected and processed. Analytical techniques such as regression analysis are applied to identify significant trends and anomalies (Fig.2).

Method of expert analysis	This method leverages the opinions and assessments of subject matter experts to identify key threats in the educational system. The main advantage is the direct access to specialized knowledge, while the primary drawback is the potential subjectivity and variance in expert opinions, which may affect the objectivity of the findings.
Paired comparison method	This approach involves a systematic comparison of listed factors, such as the threats to the education system, to assess their relative importance. It helps in structuring problems clearly and specifying assessments, though it is limited by the number of factors that can be compared and the complexity of determining relationships among them.
Data analysis	This method ranks potential risks and threats to prioritize them effectively. It provides a structured framework for risk analysis, which is beneficial for clear prioritization, but it may fail to capture all potential threats due to limitations in current knowledge and information availability.

Figure 2. The flowchart that represents the research methodology (formed by authors)

In general, the use of these methods allows us to obtain a multifaceted view of the problems of formation preschool education, which is necessary for the development of effective strategies and solutions in this area.

Results and discussion

In the course of our research, using the method of expert analysis, we focused on identifying key threats affecting the formation of the system for training future preschool education specialists. Particular attention was paid to the development of conscious citizenship and economic and environmental values. The use of expert analysis allowed us to collect important data and assessments of leading experts in the field of education, which ensured the scientific depth and objectivity of our conclusions. The six key threats identified in this study are critical to understanding the current state of funding and guide future policy interventions.

In the process of research and interviewing experts, we strictly adhered to ethical standards and requirements of expert research. All stages of the study were planned and conducted with respect for confidentiality of information, objectivity of assessments and independence of experts. This approach ensured a high degree of validity and reliability of the data obtained, which is critical to ensuring the quality and responsibility of scientific research in this important area. Thus, we have identified the following threats:

FT1. Professional burnout and staff attrition. Insufficient funding can lead to low wages and lack of opportunities for professional development for teachers, which, in turn, contributes to professional burnout and the outflow of qualified personnel from the industry.

FT2. Changes in sustainable political priorities. Political instability and changing priorities may lead to reduced funding for educational programs, especially those that develop environmental awareness and civic competencies.

FT3. Dependence on external sources of formation. Over-dependence of educational

institutions on private investment or international grants can create uncertainty and insecurity in funding, especially in the long term.

FT4. Limited resources for innovation and technology development. Insufficient resources to integrate new technologies into the educational process threaten the quality of education and the ability of preschool institutions to adapt to modern challenges.

FT5. Underestimating the importance of sustainability education is a serious threat because it results in environmental education being ignored or underemphasized in preschool curricula. This situation may undermine efforts to develop economic-environmental values and consciousness among the younger generation. Lack of adequate emphasis on environmental aspects of educational programs can lead to misunderstandings and lack of understanding of the importance of balancing human needs and environmental conservation. Children who do not receive sufficient sustainability education may not understand the impact of their actions on nature and society as a whole.

FT6. Insufficient government funding. One of the most important threats is the limited state budgeting, which cannot cover all the needs of preschool education. This leads to underfunding of programs and initiatives aimed at developing civic consciousness and environmental values.

At the next stage of our research, the method of paired comparison and hierarchical analysis will be used to rank the identified threats to the formation of the system of training future preschool education specialists. This approach will allow us to systematically evaluate the importance of each of the identified threats by comparing them with each other. Such ranking will help to understand which of these threats have the greatest impact on the system and require primary focus in developing counter strategies.

The use of these methods will not only provide quantitative and qualitative assessments, but will also help prioritize threats. This is especially important because it allows us to optimize the allocation of resources and efforts aimed at minimizing the negative impact of these threats on the quality and stability of the preschool education formation system.

The first stage is the formation of an even comparison matrix. This step involves determining the relative importance of various alternatives or criteria in the decision-making process. The essence of this method is to compare pairs of elements to assess their relative importance or priority.

The creation of the Pairwise Comparison Matrix occurs according to the following algorithm: each element is compared with each other according to a certain criterion. The results of these comparisons are placed in a matrix, where the diagonal elements are always equal to 1 (meaning the element is being compared to itself) and the off-diagonal elements show the relative importance of the two elements.

In this case:

- 1 means the two factors are equally important;
- 9 indicates very high importance of one factor over another.

The remaining values from 1 to 9 are used to indicate intermediate weight levels.

Additionally, Diagonal Elements (a_{ii}) are always equal to 1 because each factor is compared to itself. For non-diagonal elements if $a_{ij}=x$ then $a_{ji}= 1/x$

The formed matrix is shown in Table 1.

Table 1.
Pairwise Comparison Matrix

FT	FT_1	FT_2	FT_3	FT_4	FT_5	FT_6
FT_1	1	0,5	4	0,33	3	0,2
FT_2	2	1	7	0,5	5	0,333
FT_3	0,25	0,143	1	0,2	0,5	0,143
FT_4	3	2	5	1	4	0,5
FT_5	0,333	0,2	2	0,25	1	0,2
FT_6	5	3	7	2	5	1

(formed by authors)

The next step is to standardize the even comparison matrix in the Analysis of Hierarchies (AHP) method by normalizing the matrix to calculate the relative importance of each element. This process turns raw comparison scores into standardized values that can be used for further analysis.

The essence of this stage is that each element of the even comparison matrix is divided by the sum of the elements in the corresponding column. This allows the matrix to be "normalized" so that each column sums to 1. This normalization is necessary to determine the weights for each element that are used to evaluate their relative importance.

The matrix will be normalized using the following formula (1):

$$n_{ij} = \frac{a_{ij}}{\sum_{k-1}^{n} a_{kj}} \quad (1)$$

n_{ij} is a normalized element value,
n – number of elements (rows or columns) in the matrix.

a_{ij} is the original value of the element in the matrix.

In accordance with this formula, we have foremed a standardized matrix (Table 2).

Table 2.
Standardized Matrix

FT	FT$_1$	FT$_2$	FT$_3$	FT$_4$	FT$_5$	FT$_6$
FT$_1$	0.086	0.073	0.154	0.078	0.162	0.084
FT$_2$	0.173	0.146	0.269	0.117	0.270	0.140
FT$_3$	0.022	0.021	0.038	0.047	0.027	0.060
FT$_4$	0.259	0.292	0.192	0.233	0.216	0.210
FT$_5$	0.029	0.029	0.077	0.058	0.054	0.084
FT$_6$	0.432	0.438	0.269	0.467	0.270	0.421

(formed by authors)

After standardizing the even comparison matrix, the main task is to calculate a priority vector that reflects the relative importance of each threat. This process involves determining average values for each row of a standardized matrix representing the average importance of each threat, taking into account all comparisons. These averages are then normalized to sum to one, turning them into a vector of priorities. The priority vector is used to evaluate and rank threats, determining which ones are most significant and require the most attention in the context of the study.

This process turns subjective assessments from experts into quantitative indicators that can be used for objective analysis and informed decision making.

To calculate the priority vector, the average values for each row of the standardized matrix were first determined. This is the average value of each row of a standardized matrix representing the average importance of each hazard in relative terms. Formula for calculating the arithmetic mean of the i-th row (2):

$$P_i = \frac{1}{n} \sum_{j-1}^{n} s_{ij} \quad (2)$$

Where

P_i – average value of the i-th row.
s_{ij} element of a standardized matrix.
n – number of elements.

These averages were then normalized to sum to one, turning them into weights for each threat.

Normalization formula (3):

$$W_i = \frac{P_i}{\sum_{k-1}^{n} P_k} \quad (3)$$

where W_i is the normalized weight coefficient of i-th element
P_i – average value of the *i*-th row
$\sum_{k-1}^{n} P_k$ – the sum of all average values.

Table 3 contains the results of calculating the weight coefficient.

Table 3.
The results of calculating the weight coefficient

	Weighting coefficients
FT$_1$	0,106
FT$_2$	0,186
FT$_3$	0,036
FT$_4$	0,234
FT$_5$	0,056
FT$_6$	0,383

(formed by authors)

These weights reflect the relative importance of each threat, with a higher value indicating greater importance of the threat in the context of the study. For example, FT6 «Insufficient government funding» and FT4 «Limited resources for innovation and technology development» have the highest weight, meaning it is of higher importance compared to other threats.

The next step is to check consistency. In the hierarchy analysis method, it is important to ensure the reliability and validity of the results. This step ensures that the scores presented in the even comparison process are consistent and logical.

First of all, the maximum eigenvalue (λmax) is determined. This value is used to assess the degree of consistency of the experts' answers. It is defined as the average value of the ratio of the sums of the rows of the even comparison matrix to the corresponding elements of the priority vector. If the matrix is completely consistent, λmax is equal to the number of elements in the matrix. Formula to determine the maximum eigenvalue for our matrix (4).

$$\lambda_{max} = \frac{1}{n}\sum_{i-1}^{n} \frac{(A \times \text{Priority vector})}{\text{Priority vector}_i} \qquad (4)$$

As a result of calculations, we determined that the maximum eigenvalue (λmax) is 6.27. Which is a sign that the constructed matrices are consistent.

The next step is to determine the consistency index. The consistency index allows you to determine how significant the deviation from consistency is. The lower the CI value, the higher the consistency of the matrix. Formula for determining the consistency index (5):

$$CI = \frac{\lambda_{max} - n}{n - 1} \qquad (5)$$

In our case, the CI is approximately 0.053. This value means a high degree of matrix consistency.

The final metric in the consistency check phase is the determination of the consistency relationship. This index is used to assess the acceptability of CI and is calculated as the ratio of CI to the random index (RI), which is a standard value for matrices of a certain size. For a matrix of size 6, RI is 1.24. Formula for calculating CR (6):

$$CR = \frac{CI}{RI} \qquad (6)$$

Having made calculations, we determined that the CR value for our matrix is approximately 0.043. Since the CR is less than 0.1, the matrix is considered consistent, which means that the experts' assessments are consistent and reliable, and the determination of the ranking values can be considered correct.

After identifying key threats to the formation of the system of training future preschool education specialists, especially with an emphasis on the development of a conscious citizenship and economic and environmental values, the next step is to develop and implement a system of measures to counter these threats. This includes not only developing strategies that address specific problems, but also implementing an integrated approach that covers various aspects of financial management, including attracting additional sources of funding, optimizing costs and strengthening internal resources (Table 4).

An effective system of measures should be based on a deep analysis of the needs and capabilities of the educational sector, and be flexible and adaptive to changing conditions and challenges that the industry may face in the future.

Table 4.
Measures to counter the most influential threats

Measures to counter the most influential threats	
Insufficient government funding	**Limited resources for innovation and technology development**
Attracting private investment Increased collaboration with the private sector can help attract additional financial resources. This could be through partnerships, sponsorships or corporate social responsibility. Grant Programs and Funds The use of international and national grant programs can help provide additional funding for educational projects, especially those aimed at innovation and rural education development.	Partnerships with technology companies Collaborations with IT companies and startups can provide access to the latest technologies and innovative solutions for the educational process. Attracting Technology Grants Actively seeking and utilizing grants focused on technology development and innovation in education can help improve technology infrastructure.
Improving efficiency of using existing resources Optimizing budgetary expenditures and improving financial management mechanisms can help make better use of existing resources.	Development of own innovative rural education development programs Creation and development of own innovative educational programs and educational materials can reduce dependence on external resources and contribute to the development of internal potentials.
Increasing Community Engagement Organizing charitable events and soliciting contributions from parents and local communities can provide an additional source of funding for educational programs.	Cooperation with Scientific and Educational Institutions Building a network of cooperation with universities, research centers and other educational institutions can facilitate the exchange of knowledge and experience in the field of innovation and technology.

(formed by authors)

After conducting a survey of experts, using paired comparison methods and hierarchical analysis, we successfully identified the most significant threats to the formation of the system for training future preschool education specialists. This process not only made it possible to identify key problem areas, but also to formulate targeted and effective measures to counter these threats. As a result, a set of strategies was developed covering various aspects of financial and resource management, and also involving the active involvement of various stakeholders. This approach not only helps to minimize potential risks, but is also aimed at improving the quality and efficiency of formation the education system as a whole.

Once the results are available, it is important to conduct a comparative analysis of our own results with those of previous studies to determine the novelty, uniqueness, and significance of our results in the context of the existing scientific literature. Comparison with other studies helps highlight our contributions to the field, highlight similarities and differences in findings, and identify potential future research opportunities in this area. Such an analysis helps to confirm the reliability and significance of the results obtained and open new horizons for further scientific activity.

In the study by Volchik (2019), the author examines institutional traps in the fields of education and science in the context of optimization. This research is useful for understanding institutional challenges in shaping education, and our study complements it by focusing on sustainable threats and counter strategies in early childhood education.

Boni & Calabuig's (2016) study focuses on the potential of formal and informal educational spaces of universities to develop global citizenship and cosmopolitanism among students. The authors explore how university programs can foster students' understanding and responsibility for global challenges by cultivating global awareness and intercultural competence both through academic courses and beyond the classroom. Our research differs from this work in that it focuses on identifying and organizing threats to the system of training future preschool education specialists with an emphasis on the development of conscious citizenship in the context of rural education development, using methods of expert analysis, paired comparison and hierarchical ordering. This approach allows specific challenges to be examined in detail and targeted response strategies to be developed, while the authors focus on the broader aspect of global citizenship without specifying methods for identifying and countering challenges. Our

study provides specific analytical tools for evaluating and developing interventions in a highly specialized field, making its contribution unique in the context of early childhood education professional development.

Bączek et al. (2021) explore student perceptions of online learning during the COVID-19 pandemic. Our study extends this by using these findings to understand the impact of the pandemic on educational programs from rural education development perspective.

Our research uses expert analysis, paired comparison, and hierarchical ordering techniques to identify and develop strategies to counter threats in the system of preparing future preschool education specialists, focusing on the development of conscious citizenship in the context of rural education development. In contrast, the study by Hira et al. (2023) presents a broad systematic review of the literature on education for rural education development and global citizenship education, highlighting the importance of integrating these concepts into educational programs. Our approach is characterized by detailed analysis and development of specific interventions, making it particularly valuable for practical implementation in the field of early childhood education, ensuring that it meets specific challenges and needs.

A study by Zuurmond et al. (2023) focused on the importance of teaching critical thinking, civic education, and Bildung in vocational education. The authors argue that these elements are key to preparing students to question the status quo, which is necessary to form conscientious and responsible citizens. Our research is distinguished by its use of specific analytical methods to address specific problems in early childhood education, making it particularly practical and focused.

Zohar, Weinberger and Tamir (1994) analyze the impact of a critical thinking project on the development of critical thinking in the context of biology. Their work focuses on specific disciplines and the effectiveness of educational interventions. In contrast, your research is more general in nature and focuses on systemic issues in early childhood education.

Fellenz (2016) views Bildung and professional development from an ontological perspective, emphasizing personal growth. Our work differs from this study in its emphasis on methodological tools for solving pedagogical challenges rather than on the philosophical aspect of education.

Colás-Bravo et al. (2018) explore teachers' sustainability consciousness using e-portfolios. Our research is distinguished by its focus on early childhood education and the specific threats in this area, providing tools for identifying and countering them.

At the same time, Vasylyk (2019) is engaged in the formation of the ethnic consciousness of future teachers, which differs from your research in its cultural and ethnic aspect. While our research provides a broader analysis of systemic challenges in education and proposes specific methods for solving them.

To summarize, Fig. 3 depicts the key differences between our study and others in the context of this topic.

Key differences between our study and others in the context of the topic

Specialized Focus on Formation Early Childhood. Education One of the key differences of our study is its unique focus on formation the training of future early childhood education professionals. Most existing studies focus on general issues of education formation without a detailed analysis of the specifics of preschool education. Our research provides deep insight into this specific area, which is a significant advantage.

Integration of innovative methods Research. We use a combination of expert analysis, paired comparison method and hierarchical analysis, which allows us to comprehensively assess and identify key funding threats. This multi-level approach to analysis differs from the more traditional methods used in most research and provides a more in-depth and accurate analysis of the issue.

Practical recommendations for countering threats. Our research not only identifies key threats, but also provides specific recommendations for countermeasure. This aspect makes our study particularly valuable as it moves from theoretical analysis to practical steps that can be taken by educational institutions, policy makers and other stakeholders to improve funding for early childhood education.

Figure 3. The key differences between our study and others in the context of this topic (formed by authors)

Considering the comparison of the results of our research with existing scientific works in this area, we can affirm its relevance and scientific novelty. Thus, the key priority of our research is that it is aimed at conducting a detailed analysis of the influence of the environment and the relevance of measures to form a conscious position of citizens in preschool education. As a result, we have expanded our understanding of the problems of this issue and formed key theoretical and practical ideas that will be useful in the creation and implementation of appropriate operating strategies and management policies in this area. Our research is relevant because it corresponds to modern development trends and problems in the social spheres under study. The use of the results obtained will not only solve current problems, but can also serve as the basis for further research in the field of environmental education.

The study focuses on rural education development, which might not capture the nuances or the broader spectrum of educational challenges found in urban or suburban contexts. This geographical focus limits the applicability of the findings to other educational settings. The study might be constrained by time and resources, which can limit the depth and breadth of the research. For example, conducting a thorough expert analysis can be time-consuming and resource-intensive, and limited resources may have restricted the number of experts consulted or the extent of data analysis.

Conclusions

In the final part of the study, which analyzes the system of training future preschool education specialists in the context of rural education development, we come to identify the key conclusions identified during the analytical work. The study emphasized the importance of integrating the principles of rural education development into the educational process, which forms the basis for the formation of conscious citizenship in future generations.

First of all, it has been established that consistency in preschool education not only contributes to the environmental education of children from an early age, but also lays the foundation for the development of a socially responsible personality. This creates the preconditions for the formation of a harmonious society capable of adapting and responding to modern challenges of rural education development. The analysis showed that the

specialist training system faces a number of threats that can slow down or even block the process of integrating rural education development into the educational space. However, focusing on the opportunities offered by the adoption of rural education development as a core doctrine in education allows for an optimistic view of the future. An important aspect is the awareness of the need for deep and systemic changes in approaches to education. This requires all educational stakeholders, from policymakers to educators, to rethink their roles and contribute to shaping a future of sustainability. During the study, it was noted that the successful implementation of the principles of rural education development requires an integrated approach, including scientifically based methods, innovative technologies in training and education, as well as active participation and support from society.

The study highlighted the importance of continuing education and professional development for teachers as a means of improving the quality of the educational process. Teachers and educators equipped with knowledge and skills in rural education development are key to helping children understand the importance of environmental conservation, social justice, and economic stability.

In conclusion, this study opens the door for further developments in education for rural education development, pointing to the need for greater dialogue among educators, researchers, policy makers and the public. By working together, significant progress can be made in preparing conscientious citizens who can make significant contributions to the rural education development of society. As a result of the application of these research methods, the key threats to the formation of a system for training future preschool education specialists for the development of conscious citizenship in the context of rural education development were streamlined. Based on a certain hierarchy, measures to counter these threats were proposed. The study is limited in that it involves analysis of a limited number of threats. It is planned to expand this list of threats in the future.

The use of hierarchical ordering and pairwise comparisons may not fully capture the complexity of interactions between various threats. These methods often assume that factors are independent of each other, which may not be the case in complex educational ecosystems. Future studies could include a broader range of

educational settings, incorporating urban and suburban contexts to compare and contrast with rural education systems. This could help in understanding the unique and shared challenges across different educational landscapes.

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Life tasks and value orientations of future teachers under conditions of a digital educational environment

Життєві завдання і ціннісні орієнтації майбутніх педагогів в умовах цифрового освітнього середовища

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Abstract

The present study aims to establish and substantiate statistically significant correlations between the life tasks and value orientations of future teachers in training in a digital educational environment. Valid and reliable psychodiagnostic tools were applied to measure the study variables. Two correlation matrices were constructed: one between the terminal and instrumental values and another between these values and the parameters of life tasks. The results reveal that the values "entertainment", "high demands" and "responsibility" present the greatest number of significant correlations, which indicates that they are the most dependent values and prioritized by future teachers. A notable finding is that the parameter "integrity of life" does not correlate significantly with any of the values studied. This suggests that life

Анотація

Метою даного дослідження є встановлення і обґрунтування статистично достовірних зв'язків життєвих завдань і ціннісних орієнтацій майбутніх педагогів, що проходили підготовку в умовах цифрового освітнього середовища. Для вимірювання досліджуваних змінних застосовано валідний і надійний психодіагностичний інструментарій. Було побудовано дві кореляційні плеяди: термінальних та інструментальних цінностей з параметрами життєвих завдань. Результати показують, що цінності: "розваги", "високі запити" і "відповідальність" мають найбільшу кількість зв'язків, вони є найбільш залежними і пріоритетними. Примітним є те, що параметр "цілісність життя", у обох кореляційних плеядах немає достовірних зв'язків. Це свідчить про те, що цілісність життя є

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integrity is an autonomous dimension in the lives of future teachers. The correlations identified in this study have important implications for the planning and organization of the quality educational process in universities, particularly in digital environments.

Key words: distance education, self-regulation, educational environment, inclusion, educational and professional preparation, professional readiness, university.

автономним виміром у житті майбутніх вчителів. Кореляції виявлені у цьому дослідженні, мають важливе значення для планування та організації якісного освітнього процесу в університетах, особливо в цифровому середовищі.

Ключові слова: дистанційна форма навчання, саморегуляція особистості, освітнє середовище, інклюзія, навчально-професійна підготовка, професійна готовність, університет.

Introduction

A rapid pace of the modern life requires training for qualified professionals who will meet the current demands and will be able to adapt and constructively act under conditions of permanent social transformations. The cataclysms sweeping the global space encouraged thinking about the value and efficiency of digital technologies. The COVID-19 pandemic, local military conflicts, terroristic attacks, social-political and economic confrontations have accelerated the development of virtual space, creating conditions for pursuing education in a distant format. Obviously, the outlined preconditions have also contributed to the rapid development of artificial intelligence. Correspondingly, application of artificial intelligence should facilitate solving the urgent human problems. Such social transformations could not but influence value orientations of students and, apparently, affected their operational component – life tasks that will be examined in this research. Articulation of the above problem determined the organization of research on the Ukrainian sample which was under martial law and qualitatively reflected the social-psychological reality. The outlined social-psychological reality is an instant time dimension between the past and the future which can be studied using the obtained empirical results, through the development of critical thinking (Arbeláez-Campillo et al., 2020), the formedness of a civic position (Arbeláez-Campillo et al., 2018), the ability to construct affecting the future. This is confirmed by the respondents' dominant mental states which are partly accompanied by stress disorders, a long-term effect of distress, consequences of the experienced traumatic events, and sufferings causing flashbacks and intrusions. We hope that creation of a developmental educational environment, constructed with digital technologies, and meeting the present demands will allow solving the urgent problems of training future teachers.

Hypothesis. Life tasks have a regular correlation with future teachers' values determined by the conditions of educational-professional preparation.

Purpose is to establish and substantiate statistically significant correlations between life tasks and value orientations of future teachers taking academic courses under conditions of a digital educational environment.

Literature review

Value orientations in the structure of personality. Value orientations comprise a verified system of principles which is characterized by an individual's focus on their needs and interests. Value orientations are the major component of personality structure and, correspondingly, determine an individual's life orientations. Life attitudes, the worldview development, and the formation of attitudes towards others play an important role in the life of adolescents. Educational-professional preparation is a leading type of mental activity affecting the development of adolescents pursuing a profession (Kononenko et al., 2020).

Formation of value orientations in adolescents. The formation of value orientations occurs in activities on the basis of the gained competencies and experience, and is reflected through external and internal intentions (Halian et al., 2020). The formed professional readiness and the aspiration for self-realization often make young people to resort to professional migration (Popovych et al., 2023), which is a temporary method for solving urgent problems. The temporary nature consists in the fact that, having solved urgent problems related to financial support, young people face new difficulties which are more complicated and lie in the plane of professional and personal identity. Researchers I. Popovych et al. (2023)

found that professional identity of future professionals depends on a life choice and is formed during educational-professional activity. Pursuing a profession, students experience crisis tendencies accompanied by disappointments in choosing a future profession and the discrepancy between their expectations and the reality they faced. In other words, they are not ready to solve urgent professional problems. It was substantiated and proved that unpreparedness for professional activity testifies to low dispositional self-development, a lack of desire and readiness for self-education. The studies related to other professional fields also found and convincingly substantiated that the reality faced by students in workplace practice, even automation of work processes meant for reducing the role of "human factor" sometimes make students think over the value of the chosen profession (Zinchenko et al., 2019; 2020).

Relationship between life tasks and value orientations of an individual. Value orientations are characterized by high assimilative capacity, i. e. they affect life-creative processes through life tasks, have a direct correlation with an individual's resilience (Tytarenko & Larina, 2009). Life tasks are internal intentions of an individual and operationalization of their life expectations. It was established that social expectations are closely related to life orientations (Stelmashchuk et al., 2023) and motivational orientation of an individual. Researchers believe that value orientations in the dimensions of an individual's actual activity are associated with motivations and social expectations. The reason for this is their similar content and organic unity of these phenomena. Other studies show that educational professional activities of students are accompanied by coping strategies and the work of defense mechanisms. The latter qualitatively affect cognitive processes, causing a decrease in efficiency as proved in the studies by V. Plokhikh (2023). Psycho-emotional loads of future teachers, the necessity to develop tolerant behavior (Halian et al., 2020), important general, integral and special competencies, a lack of well-formed time competence put enormous pressure which can accelerate psycho-emotional burnout. This risk factor as well as psychological safety deprive professionals of many mental resources.

Conditions, challenges and opportunities of a digital educational environment. An important and necessary condition for creating a digital educational environment is the application of modern digital and information-communication technologies. Learning in the virtual space requires creation of a safe educational environment. Information security and cyber security are the key challenge. The problem of students' reduced activeness during online distance learning is equally important (Hudimova et al., 2021). Researchers N. Pavlyk and O. Radzimovska (2023) highlight the necessity to take into consideration that individuals with special educational needs may be present in a digital educational environment. The presents of students with special educational needs requires not only creating a safe and inclusive educational environment, but also the organizers' understanding of all features of the creation of an educational inclusive environment. On the one hand, rapid improvement of hardware and software offers many opportunities for creating a digital environment, and, on the other hand, it requires timely and permanent changes. Therefore, the training of future teachers should be based on conditions, challenges and opportunities of the current situation in education.

Retrospective analysis of life tasks and of value orientations of future teachers under conditions of a digital educational environment demonstrates the depth and complexity of the scientific issue we are researching. Life tasks and value orientations are important at all stages of educational-professional activity, have a considerable impact on dispositional development, adaptation in the workplace and initial professionalization. We have to establish and substantiate statistical correlations with further operationalization in educational process taking into consideration the present reality.

Methods

Participants. The sample involved students of two universities which were forced to take academic courses in a distance education format: Ivan Franko National University of Lviv (Lviv region, Ukraine) and Kherson State University (Kherson region, Ukraine – relocated Ivano-Frankivsk region, Ukraine). They were students of degree programs in pedagogy and planned to work as teachers in the future. The sample consisted of $n = 79$ participants – females ($n = 65$; 82.28%) and males ($n = 14$; 17.72%) whose age ranged from 18 to 23 years. The sample parameters: (M = 20.11; SD = ±3.93; SE = .198; min = 18.00; max = 23.00; Mo = 19; Me = 20.00).

Organization of Research. The summative research strategy was applied in the first semester of the 2023–2024 academic year and all the activities were performed in October –

November: we received consent of the Ethical Committee, developed and approved the research strategy, prepared standard blanks of questionnaires in Google Forms, randomly selected respondents and performed summative assessment. The participants were informed about the research in advance and took part in it voluntarily. Filling out anonymous forms by the participants and observance of non-disclosure of personal data on the part of the organizers ensured confidentiality of the research procedure. Anonymity of the survey, awareness and voluntary participation ensured reliable and significant results.

Research Limitation. The minimal possibility of controlling the participants who meet the age range and the main criterion of being trained under conditions of an educational digital environment is the key caveat in organizing the research sample. Using Google Forms and observing confidentiality also prevented us from controlling the sample by all the criteria. We hope that the experience of conducting experimental research allowed avoiding mistakes and random participants in the sample. Since it is not always possible to control the dependent variable in similar studies, our research is considered to be a quasi-experiment and does not claim to be an ideal experiment. The above limitations do not reduce the value of the findings, but rather highlight ecological validity of the researched phenomenon.

Procedures and instruments. The method "Value orientations" (VO) M. Rokeach (1973) is based on the ranking of two classes of values: terminal and instrumental. This psycho-diagnostic tool is considered to be flexible, efficient, quite convenient and economical for diagnosing and processing results. The basis of the method comprises two lists of values (eighteen values in each one) which had to be arranged in order of importance by respondents, viewing them through the prism of their life principles. The method "Life tasks of an individual" (LTI) (Tytarenko & Larina, 2009) contains eighty-seven statements to which respondents had to respond either "agree" or "disagree". The method combined a quite differentiated list of scales: the scale of motivation for life tasks, containing five subscales (motivation for materialistic satisfaction, money, comfort; motivation for achieving success, prestige, power, recognition; motivation for self-constitution; motivation for creativity; localization of life tacks by the areas "family", "education and work", "health", "friends"); the scale of structuring life time, containing two subscales (availability of structured time; remoteness of structuring); the scale of attitude towards the future; the scale of subjective activeness; the scale of operational characteristics of life tasks containing five sub-scales (strategy; hardiness; wholeness of life; flexibility; activeness – exhaustion); and also the scale of frankness. The established coefficient α-Cronbach used to check homogeneity of empirical data showed a high level (.908) by the method "Value orientations (Rokeach, 1973) and a satisfactory level (.714) by the method "Life tasks of an individual" (Tytarenko & Larina, 2009).

Statistical Analysis. The obtained empirical data were downloaded from Google Forms to "MS Excel". Then the empirical data were prepared for work with the program "SPSS" v. 29.00.01. The figures are presented using "MS Office Word 2007". Standard statistical coefficients were used to establish statistically significant correlations. The levels of $p \leq .050$; $p \leq .010$; $p \leq .001$ are considered to be significant.

Results

Tabl. 1 gives the main descriptive frequency characteristics of the examined parameters by the methods "SAT" (Aleshina et al., 1987), "LMO" (Leontyev, 2006) and "MSP" (Milman, 1990).

Tabl. 1 gives the main descriptive frequency characteristics of the respondents' terminal values identifies with the method "VO" M. Rokeach (1973).

Table 1.
Descriptive frequency characteristics of the respondents' terminal values (n = 79)

Value	Mean (M)	Median (Me)	Mode (Mo)	Standard deviation (SD)	Minimum (min)	Maximum (max)
T1	6.16	5.00	1	±5.410	1	18
T2	9.47	10.00	16	±5.063	1	18
T3	7.97	8.00	3	±5.033	1	18
T4	9.54	10.00	13	±4.668	1	18
T5	12.00	14.00	14	±4.739	2	18
T6	9.29	8.00	5	±5.144	1	18
T7	7.70	7.00	2	±5.231	1	18
T8	10.30	12.00	12[a]	±4.556	1	18
T9	11.78	12.00	16	±4.178	1	17
T10	10.18	10.00	14	±5.025	1	18
T11	9.62	10.00	11	±4.262	2	17
T12	9.73	9.00	9	±4.782	1	18
T13	12.49	13.00	18	±4.489	1	18
T14	7.11	6.00	1	±5.081	1	18
T15	9.96	10.00	18	±5.370	1	18
T16	10.33	10.00	9[a]	±5.235	1	18
T17	10.35	10.00	11	±5.313	1	18
T18	6.52	6.00	2	±4.582	1	18

Source: Personal elaboration, October/November, 2023.
Note: a – there are several modal values, the smallest value is shown; T1 – life activeness; T2 – life wisdom; T3 – health; T4 – interesting job; T5 – beauty of nature/art; T6 – love; T7 – financial security; T8 – good friends; T9 – social vocation; T10 – cognition; T11 – productive life; T12 – development; T13 – entertainments; T14 – freedom; T15 – happy family life; T16 – happiness of others; T17 – creativity; T18 – self-confidence.

The main descriptive frequency characteristics of terminal values are given for efficient analysis of the empirical data. Since the methodology involves ranking, the lowest parameters of the mean (M) correspond to the highest ranks of the values in the general list. It was found that such values as life activeness (T1) (M = 6.16; SD = ±5.410); self-confidence (T18) (M = 6.52; SD = ±4.582) and freedom (T14) (M = 7.11; SD = ±5.081) were ranked first, second and third, respectively. Such terminal values as social vocation (T9) (M = 11.78; SD = ±4.178); beauty of nature/art (T5) (M = 12.00; SD = ±4.739) and entertainments (T13) (M = 12.49; SD = ±4.489)

were in the last ranks. Comparison with similar studies was not performed since ranking is a specific method which is sensitive to a sample and social situation, depends on demographic characteristics and other criteria. The proposed parameters of terminal values outlined the general purpose and meaning of the respondents under conditions of a digital educational environment.

Tabl. 2 presents the main descriptive frequency characteristics of the respondents' instrumental values identified with the method "VO" M. Rokeach (1973).

Table 2.
Descriptive frequency characteristics of the respondents' instrumental values (n = 79)

Value	Mean (M)	Median (Me)	Mode (Mo)	Standard deviation (SD)	Minimum (min)	Maximum (max)
I1	9.49	10.00	15	±5.472	1	18
I2	10.68	12.00	17	±5.012	1	18
I3	10.08	11.00	7[a]	±5.507	1	18
I4	8.84	10.00	13	±5.594	1	18
I5	10.32	12.00	15	±5.148	1	18
I6	7.28	6.00	1	±5.051	1	18
I7	11.29	12.00	18	±5.778	1	18
I8	8.80	9.00	3[a]	±4.955	1	18
I9	8.96	9.00	9	±4.805	1	18
I10	8.33	7.00	2	±5.168	1	18
I11	9.92	10.00	11	±4.774	1	18
I12	8.51	8.00	5	±4.420	1	18
I13	10.01	10.00	6	±5.080	1	18
I14	9.58	9.00	7	±5.170	1	18

I15	10.25	9.00	8	±4.937	1	18
I16	8.87	9.00	10	±4.853	1	18
I17	10.04	10.00	9	±4.921	1	18

Source: Personal elaboration, October/November, 2023.
Note: a – there are several modal values, the least value is shown; I1 – neatness; I2 – courteousness; I3 – high demands; I4 – cheerfulness; I5 – diligence; I6 – independence; I7 – intolerance of flaws; I8 – educatedness; I9 – responsibility; I10 – rationalism; I11 – self-control; 12 – courage in defending one's opinion; I13 – strong will; I14 – patience; I15 – broad-mindedness; I16 – honesty; I17 – performance; I18 – sensitiveness.

The data on instrumental values are given using a similar algorithm. It was stated that the values: independence (I1) (M = 7.28; SD = ±5.051); rationalism (I10) (M = 8.33; SD = ±5.168) and courage in defending one's opinion (I12) (M = 8.51; SD = ±4.420) are ranked first, second and third respectively. The instrumental values: broad-mindedness (I15) (M = 10.25; SD = ±4.937); diligence (I5) (M = 10.32; SD = ±5.148) and intolerance of flaws (I7) (M = 11.29; SD = ±5.778) were in the bottom ranks. It is noteworthy that the above parameters, through the descriptive frequency characteristics, allowed determining the respondents' belief that their behavior and personality traits are important under conditions of a digital educational environment.

Tabl. 3 presents the main descriptive frequency characteristics of the parameters by the method "LTI" (Tytarenko & Larina, 2009).

Table 3.
Descriptive frequency characteristics of the parameters by the method "LTI" (n = 79)

Parameters	Mean (M)	Median (Me)	Mode (Mo)	Standard deviation (SD)	Minimum (min)	Maximum (max)
MLT	30.8101	31.0000	37.00	7.99050	10.00	45.00
MLSM	5.9494	6.0000	6.00	2.69805	.00	10.00
MAS	4.5190	5.0000	5.00	2.65475	.00	11.00
MS	5.2152	6.0000	6.00	2.40550	.00	10.00
MC	4.8734	5.0000	5.00	2.49804	.00	11.00
FA	1.6203	2.0000	.00	1.73430	.00	5.00
EW	3.0000	3.0000	5.00	1.68705	.00	5.00
H	3.7342	5.0000	5.00	1.53346	.00	5.00
FR	1.8987	2.0000	.00	1.99097	.00	5.00
SLT	12.1772	12.0000	21.00	6.00803	2.00	22.00
AST	4.8101	4.0000	2.00	3.19485	.00	10.00
TC-T	.6203	1.0000	1.00	.48842	.00	1.00
TC-1	.9620	.0000	.00	1.00566	.00	2.00
ЧК-5	1.8608	3.0000	3.00	1.46527	.00	3.00
TC-40–50	1.7722	.0000	.00	1.99968	.00	4.00
TC-EL	1.8908	3.0000	3.00	1.896527	.00	3.00
AF	2.1519	.0000	.00	2.49147	.00	5.00
SA	5.0886	4.0000	4.00[a]	3.06841	.00	10.00
OCLT	5.2911	6.0000	6.00	2.68018	.00	10.00
ST	25.8734	26.0000	24.00	7.34038	12.00	42.00
HRD	5.6709	6.0000	4.00	3.17733	.00	12.00
WL	5.0380	6.0000	6.00	2.69588	.00	10.00
FL	5.8987	6.0000	4.00	2.26226	.00	10.00
A–E	5.0380	4.0000	4.00	2.19231	.00	10.00
F	4.2278	4.0000	2.00[a]	2.52144	.00	10.00

Source: Personal elaboration, October/November, 2023.
Note: a – there are several modal values, the least value is shown; MLT – motivation for life tasks (general scale); MLSM – motivation for life satisfaction with material things; MAS – motivation for achieving success; MS – motivation for self-constituting; MC– motivation for creativity; FA – family; EW – education and work; H – health; FR – friends; SLT – structured life time; AST – availability of structured time; TC-T – time contour "today"; TC-1 – time contour "1 year"; TC-5 – time contour "5 five years"; TC-40–50 – time contour "40–50 years"; TC-EL – time contour "entire life"; AF – attitude towards the future; SA – subjective activeness; OCLT – operational characteristics of life tasks; ST – strategy; HRD – hardiness; WL – wholeness of life; FL – flexibility; A–E – activeness/exhaustion; F – frankness.

The scale of frankness (F) used in the method demonstrated its effectiveness. We excluded the data of two respondents and the research sample comprised n = 79 future teachers. The main descriptive characteristics relevantly reflecting the constructed social reality were determined in all the tasks. Comparison with similar studies was not performed, since, unlike instrumental values, the proposed parameters have higher sensitivity and operational efficiency. It is noteworthy that there are no significant differences between the obtained data and the data obtained by other researchers on similar samples. The proposed descriptive characteristics ensured replication of the empirical research.

Correlations of terminal values with the parameters of an individual's life tasks were established. For the convenience of ranking, the parameters of terminal values obtained by the method "VO" M. Rokeach (1973) were converted into T-scores. Fig. 1 presents a correlation pleiade of the researched parameters.
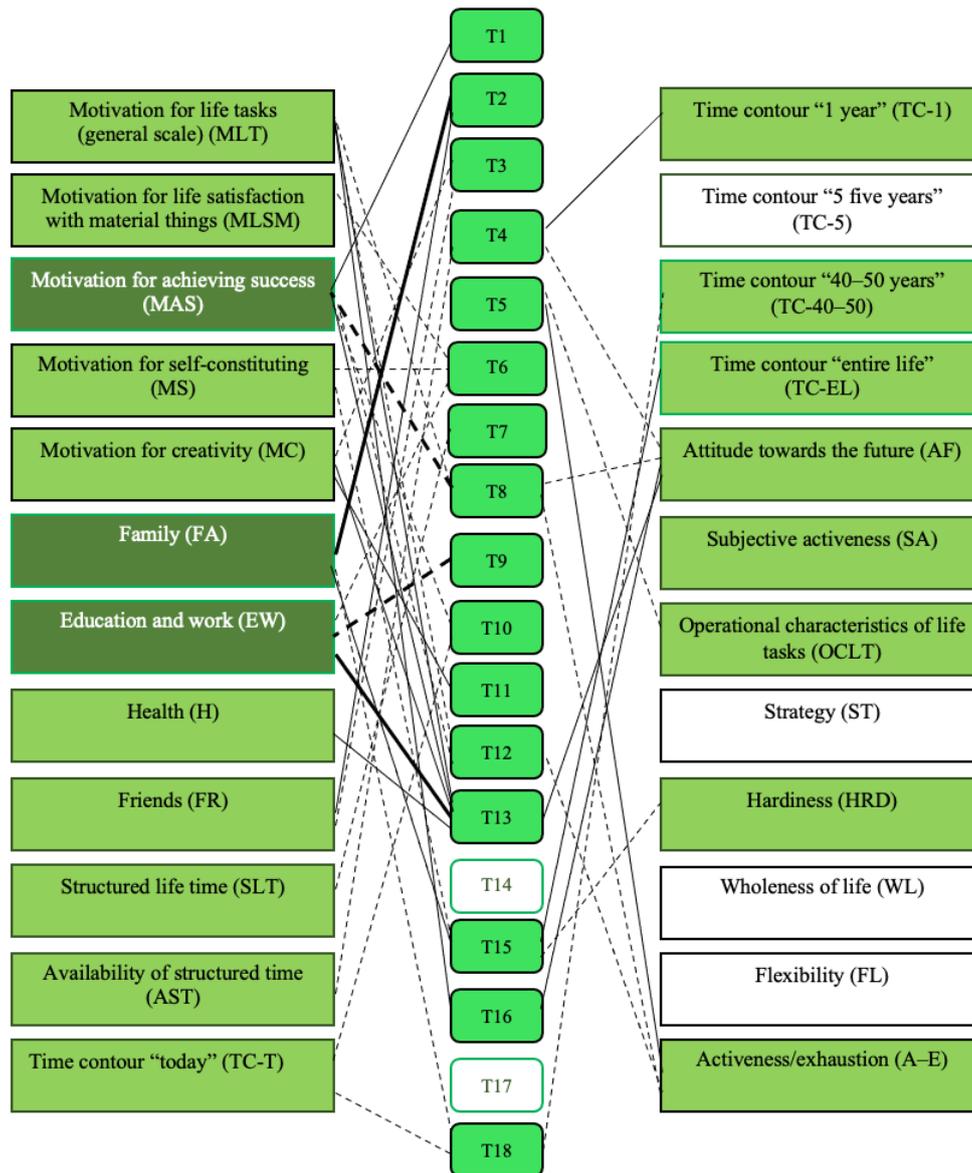
Figure 1. Correlation pleiade of the respondents' terminal values and parameters of life tasks (n = 79)
Source: Personal elaboration, October/November, 2023.
Note: ——— direct correlations at p ≤ .050; ▬▬▬ direct correlations at p ≤ .010; ▪ ▪ ▪ inverse correlations at p ≤ .010; ──── inverse correlations at p ≤ .050; T1 – life activeness; T2 – life wisdom; T3 – health; T4 – interesting job; T5 – beauty of nature/art; T6 – love; T7 – financial security; T8 – good friends; T9 – social vocation; T10 – cognition; T11 – productive life; T12 – development; T13 – entertainments; T14 – freedom; T15 – happy family life; T16 – happiness of others; T17 – creativity; T18 – self-confidence.

The correlation pleiade of terminal values demonstrates forty significant correlations (p ≤ .050; p ≤ .010), seventeen correlations being direct, the rest of them being inverse. The strongest correlations are characteristic of the life tasks: MAS (r_s = -.326; p = .002); C (r_s = .295; p<.004) and EW (r_s = .288; p<.005). The terminal values with the strongest correlations are as follows: life wisdom (r_s = .295; p<.004); good friends (r_s = -.326; p = .002) and social vocation (r_s = .288; p<.005). The following life tasks have no correlations: the time contour "5 years"; strategy; the wholeness of life and flexibility.

The following terminal values have no correlations: freedom and creativity. The value "entertainments" having six correlations is the most dependent and dangerous one.

Correlations of instrumental values with the parameters of an individual's life tasks were established. For the convenience of ranking, the parameters of instrumental values determined by the method "VO" M. Rokeach (1973) were converted into T-scores. Fig. 2 presents a correlation pleiade of the researched parameters.
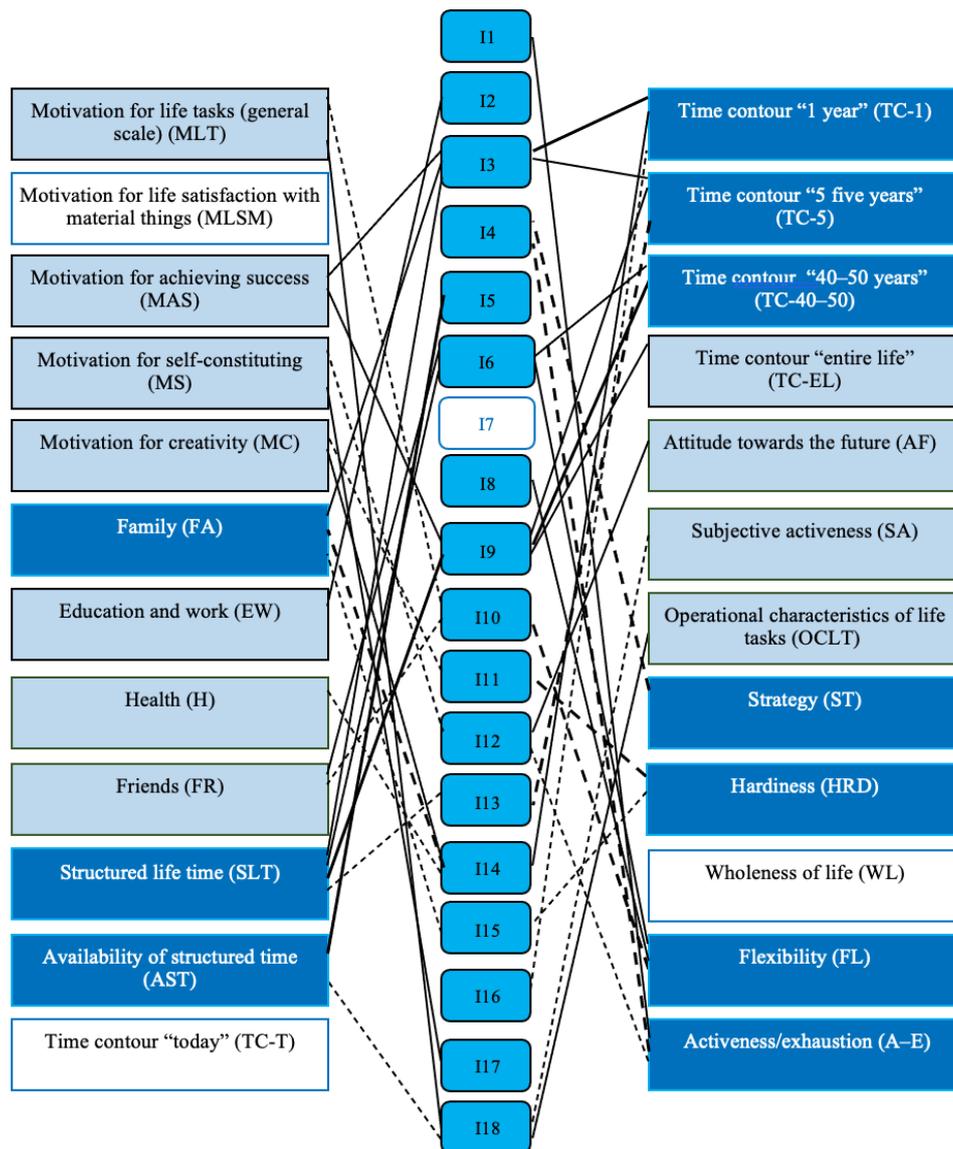
Figure 2. Correlation pleiade of the respondents' instrumental values and parameters of life tasks (n = 79)
Source: Personal elaboration, October/November, 2023.
Note: ⎯⎯ direct correlations at p ≤ .050; ⎯⎯ direct correlations at p ≤ .010; ▬ ▬ ▬ inverse correlations at p ≤ .010; ⸱⸱⸱⸱ inverse correlations at p ≤ .050; I1 – neatness; I2 – courteousness; I3 – high demands; I4 – cheerfulness; I5 – diligence; I6 – independence; I7 – intolerance of flaws; I8 – educatedness; I9 – responsibility; I10 – rationalism; I11 – self-control; 12 – courage in defending one's opinion; I13 – strong will; I14 – patience; I15 – broad-mindedness; I16 – honesty; I17 – efficacy; I18 – sensitiveness.

The correlation pleiade of instrumental values demonstrate forty-two significant correlations ($p \leq .050$; $p \leq .010$), twenty-four correlations being direct, and the rest of them being inverse. Ten life tasks have the strongest correlations: FA ($r_s = -.264$; $p = .009$); SLT ($r_s = -.357$; $p < .001$); AST ($r_s = .263$; $p = .010$); TC-1 ($r_s = .299$; $p = .004$); TC-5 ($r_s = -.278$; $p = .007$); TC-40–50 ($r_s = =.276$; $p < .007$) ST ($r_s = -.262$; $p = 010$); HRD ($r_s = -.262$; $p = 010$); FL ($r_s = -.421$; $p < .001$ and A–E ($r_s = -.289$; $p = .005$). The instrumental values with the strongest correlations are as follows: high demands; cheerfulness; diligence; responsibility; rationalism; self-control; strong will; patience. The following tasks have no correlations: motivation for life satisfaction with material things; the time contour "today" and the wholeness of life. The instrumental value "performance" has no correlations. The values "high demands" and "responsibility" having five significant correlations are the most dependent and dangerous values.

Discussions

The issue of an individual's life tasks in the context of changed conditions of a social reality, which are the conditions of a digital educational environment, is highly topical. Scientific research contains a considerable number of theoretical and experimental studies on value-oriented and meaningful spheres of personality (Halian et al., 2020; Rokeach, 1973; Tytarenko & Larina, 2009). Life tasks are a unique construct that is capable of demonstrating realization of the most important forms of self-prediction which are the most real in terms of readiness of an individual and an external situation for them (Tytarenko & Larina, 2009). Life tasks under conditions of a digital educational environment demonstrate shifts and transformations occurring as a result of a new social reality. The fact that the parameter "wholeness of life" (WL) has no significant correlations in both correlation pleiades (see Fig. 1 and Fig. 2), i. e. remains autonomous, is alarming. Since the wholeness of life is reflected in self-awareness and self-acceptance, indicates completeness and development of one's talents and inner strength, autonomy testifies to a lack of regular correlations with values. It is obvious that the wholeness of life is not a priority life task in the current empirical dimension. Since the values "entertainments", "high demands" and "responsibility" have the largest number of significant correlations, they are evidently dependent and prioritized. Whereas the value "entertainments" has always been important for adolescents, it dominates under current conditions, highlighting a hedonistic tendency in young people. It is noteworthy that the instrumental values "high demands" and "responsibility" are located next to each other. Responsibility is an important instrumental value demonstrating a conscious attitude towards responsibilities and life tasks.

As convincingly demonstrated in the research by V. Plokhikh (2023), defense mechanisms accompanying higher education students have a qualitative impact on cognitive processes, reducing efficiency of future teachers' educational-professional training. Changed conditions, continuous movement towards the future, which is unknown and accompanied by stressful situations, educational-professional training being an example of this movement, determine activation of these processes. Expectedly, the time contour "5 years", strategy and flexibility have no correlations with terminal values (see Fig. 1). These life tasks structure the nearest contour of the future in the dimensions of pursuing a profession and adaptation in the workplace, and demonstrate a general purpose under conditions of a digital educational environment. At the same time, the life tasks "flexibility" and "strategy" have a considerable number of significant correlations with instrumental values. Obviously, an individual's attitude towards certain conditions of life activities is reflected through instrumental values, that is confirmed by the obtained correlation pleiade.

The obtained combination of correlations of terminal and instrumental values with life tasks established under conditions of a digital educational environment which should ensure quality educational-professional training sheds light on a number of regular correlations. We cannot state determinacy of these correlations or the impact of life tasks on the respondents' values on the basis of the obtained results. However, it can be a prospect of our scientific research. The obtained correlations emphasize a number of important scientific facts which are alarming and require additional examination and implementation in educational process.

Conclusions

We performed theoretical-methodological analysis and substantiated life tasks and value orientations which are important at all stages of educational-professional activity, have a considerable impact on dispositional development, adaptation in the workplace and content parameters of initial professionalization.

The descriptive frequency characteristics of all the researched parameters were found. Two correlation pleiades were created: of terminal and instrumental values with the parameters of life tasks. It was substantiated that the values "entertainments", "high demands" and "responsibility" have the largest numbers of significant correlations, because they are the most dependent and prioritized values.

It was noted that life tasks under conditions of a digital educational environment demonstrate shifts and transformations occurring as a result of a new social reality. We underscored the fact that the parameter "wholeness of life" (WL) has no correlations in both correlation pleiades, i.e. it is autonomous. It was elucidated that the wholeness of life is reflected in self-awareness and self-acceptance, indicates completeness and development of one's talents and inner strength. It was assumed that the wholeness of life is not a priority life task of the respondents under current conditions. It is recommended that organizers of a digital educational environment should create interactive workspaces that would promote the development of talents and the disclosure of creativity of future teachers.

It was generalized that the obtained correlations highlight a number of important scientific facts which are alarming and require additional examination and implementation in educational process.

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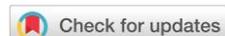
Cultural texts and intercultural competence in Russian as a foreign language lessons for medical-biological students

КУЛЬТУРОЛОГИЧЕСКИЕ ТЕКСТЫ И МЕЖКУЛЬТУРНАЯ КОМПЕТЕНТНОСТЬ НА УРОКАХ РУССКОГО ЯЗЫКА КАК ИНОСТРАННОГО ДЛЯ СТУДЕНТОВ МЕДИКО-БИОЛОГИЧЕСКОГО ПРОФИЛЯ

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Abstract

The aim of the research is to demonstrate the significance of using texts of cultural content in Russian as a foreign language (RFL) lessons. The subject of the article is the texts about the Russian scientists M.V. Lomonosov and I.P. Pavlov, extracted from basic RFL textbooks for students of a medical-biological profile in higher education. The authors of the article focus on the process of intercultural communication, which contributes to the formation of linguistic and cultural competence among foreign students in RFL lessons. The role of these texts in the formation of students' sociocultural competence is analyzed. The methodology of the work

Аннотация

Цель исследования — показать значимость использования текстов культуроведческого содержания на уроках русского языка как иностранного (РКИ). Объектом статьи являются тексты о русских ученых М. В. Ломоносове и И. П. Павлове из базовых учебников РКИ, с которыми работают студенты медико-биологического профиля в высшей школе. В центре внимания авторов статьи процесс межкультурного общения, который способствует формированию лингвокультурологической компетенции у иностранных студентов на уроках РКИ. Анализируется роль данных текстов,

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includes comprehensive hermeneutic analysis of texts of cultural content dedicated to the activities of Russian scientists Lomonosov and Pavlov, using biographical commentary and historical context. The results of the research show that the proposed teaching techniques in the context of intercultural learning contribute to the effectiveness of language learning.

Keywords: Russian as a foreign language, sociocultural competence, teaching techniques, language environment, activities of M. V. Lomonosov and I. P. Pavlov, Russian culture and history.

влияющих на образование социокультурной компетенции студентов. Методология работы: целостный герменевтический анализ текстов культуроведческого содержания, посвященных деятельности российских ученых Ломоносова и Павлова, с привлечением биографического комментария и исторического контекста. Результаты исследования: предложенные приемы работы в контексте межкультурного обучения способствуют повышению эффективности обучения языку.

Ключевые слова: русский язык как иностранный, социокультурная компетенция, приемы обучения, языковая среда, деятельность М. В. Ломоносова и И. П. Павлова, русская культура и история.

Introduction

The mastery of a foreign language should be carried out in the context of intercultural communication, with the student fully immersed in the national worldview of the country where they have come to receive higher education and learn a new profession. Modern linguists rightly note: "a culturological text allows combining the process of familiarizing foreign students with Russian culture with the process of mastering thematic vocabulary, significant cultural concepts, and linguistic units with a national cultural component of meaning" (Tarchimaeva, 2022, p. 107). For these reasons, in this article, we will address the issue of using culturological texts in Russian as a foreign language lessons. The object of the study will be texts of culturological content dedicated to the lives and personalities of famous Russian scientists.

The expansion of Russia's economic and cultural contacts with other countries continues to stimulate interest in learning the Russian language among applicants and students from abroad. In the conditions of globalization and the transitional nature of the culture of the 21st century, mass digitalization, which is increasingly being contemplated by philosophers, culturologists (Dudareva, 2022), and linguists, teachers of RFL (Dudareva & Nikitina, 2023; Bilyalova et al., 2020; Rozhdestvenskaya, 2022), there are other requirements for textbooks and teaching materials for RFL (Shcherbakova, 2013). On the one hand, we must enter the mainstream of modern science and philology and think about our potential recipient, a student interested in receiving education in Russia. However, we should not follow the path of least resistance and abandon traditional culturologically rich texts of

general content for discussion with students at the first certification level. Intercultural communication practice remains a priority for methodologists (Abazova, 2012).

The aim of the research is to demonstrate the significance of using texts of cultural content in Russian as a foreign language (RFL) lessons. The role of these texts in the formation of students' sociocultural competence is analyzed

The article is organized as follows:

In the first section, the theoretical framework that supports the study is presented. In the second section, the research methodology is described. In the third section, the results of the study are presented. In the fourth section, the results of the study are discussed and the conclusions are presented.

Literature review or theoretical framework

Modern methodologists, teachers of Russian as a foreign language, select new ways of teaching. For example, the experience of teachers at a linguistic school from Kursk is of great interest. V. M. Chirkova in her new article "Development of socio-cultural competence of foreign students in the Russian classes (on the example of the topic "Museum of Moscow")" addresses the problem of sociocultural competence, which she solves in the Russian language lesson. On the educational material on the sociocultural theme "Museums of Moscow", the author demonstrates the value of linguistic and regional material for the formation of ideas about foreign countries of the language being studied, its customs, traditions, and representatives (Chirkova, 2019).

Linguists from Volgograd are turning to the heritage of Russian cinema to develop sociocultural competence among students from different countries (Efremova, & Koroleva, 2020). Many researchers note that achievements in this area are not only language training, but also sociocultural.

In modern humanities we find the following definition of sociocultural competence: "the sum of knowledge about the country of the language being studied, the national and cultural characteristics of the social and speech behavior of speakers language and the ability to use such knowledge" (Azimov, 2010, p. 286). Modern linguist N. N. Samchik points to the following qualities of sociocultural competence: operating with culturally marked linguistic material; mastering the skills and abilities necessary for successful communication in the target language, taking into account the etiquette, speech and non-verbal norms that exist in the country of the language being studied (Samchik, 2019, p. 58).

Studying a foreign language at a high cultural level is equivalent to a journey into another *national cosmos*, characterized by a certain set of *cultural constants*, national a priori, codes, which were extensively written about by the Russian cultural scientist and philologist G. D. Gachev in his books about national images of the world (the theory of national constants, codes that exist in every culture and country) (Gachev, 2008) and which are guided by modern methodologists, teachers of RFL (Dudareva & Nikitina, 2023; Dudareva et al., 2023). Of course, medical and biological profile students, to whom this article is dedicated, namely their understanding of our culture and language, are unlikely to be interested in the subtleties of linguistics, grammar puzzles, and cultural-philosophical reflections, which are necessary for future philologists, historians, philosophers. But this does not cancel the necessity of students' general awareness in terms of studying Russian science in the face of outstanding scientists M. V. Lomonosov, D. I. Mendeleev, I. P. Pavlov (Shustikova, 2011). For these reasons, textbooks offer for study texts-"medallions", dedicated to outstanding domestic scientists who have influenced the world scientific community. Let's turn to such a text from the classic textbook "Russian language - my friend" (basic level) edited by well-known methodologists in the field of RFL T. V. Shustikova, V. A. Kulakova, aimed at studying the personality of M. V. Lomonosov.

Materials and methods

The methodology of the work includes comprehensive hermeneutic analysis of texts of cultural content dedicated to the activities of Russian scientists Lomonosov and Pavlov, using biographical commentary and historical context. The research methodology to a holistic ontohermeneutical analysis aimed at highlighting the cultural paradigm of these scientific texts, which allows us to approach the issues of language learning ontologically. Much attention is paid to the biography of Russian scientists, which makes it possible to study the Russian mentality.

Results and discussion

Having analyzed the work of leading Russian experts on the language and culture interaction, intercultural communication, methods of teaching foreign languages, the authors of the article determine the role of the development of sociocultural competence in teaching foreign languages, identify its main components.

We will conduct a lesson-experiment "M. V. Lomonosov - a famous Russian scientist". The teacher's goal is to interest medical students in the personality of the outstanding figure of world culture, the founder of national science and the University of M.V. Lomonosov. The lesson should start with the demonstration of the scientist's portrait, which we can also easily find in the stated textbook. Let's pay attention to the high forehead of a thinking person, to his purposeful clear gaze, to the pen in the hands of the scientist, who, perhaps, is thinking about the laws of chemistry, mathematics. Here we can talk about his appearance, choose adjectives to describe it, expanding ideas about synonymy in the Russian language, enriching the vocabulary of a foreign student. Then we should remind students of the well-known fact: one of the oldest universities in our country bears the name of a Russian scientist. We are talking about Moscow State University (MSU) named after M.V. Lomonosov. Here you can also show an illustration with an image of the main university building. Next, we approach the main part of the lesson and proceed directly to reading the text "Mikhail Vasilyevich Lomonosov (1711–1765)" (Shustikova, 2011, p. 663).

While reading the text, foreign students trace the fate of the great scientist: at the age of 14, the growing up Mikhail was eager to gain knowledge, wanted to learn to read, study

science, but there were no books in his home and village where he lived, so at the age of 19, the young man walked to Moscow. Here it is worth focusing on the spiritual and physical feat of the scientist, who very much wanted to study. The text also reports on how quickly our compatriot became a real scientist and a great teacher, studying various subjects in Russia and abroad.

After reading the text, the teacher asks the students: "What can you tell about the great scientist M.V. Lomonosov?" A student can answer the teacher: "About this great scientist one can say very briefly: Lomonosov created the first Russian university." The dialogue continues, and the teacher asks again: "What subjects did M.V. Lomonosov study?" The student must list from the text: chemistry, philosophy, foreign languages. Next, a few more questions should be asked to identify the degree of understanding of the text: "At what age did Lomonosov start studying, get acquainted with arithmetic and grammar?", "Where did he study?" The answers to these questions allow us to judge whether the students really understood the main information from the text. After the oral part, it is necessary to move on to the written task, which can be performed on the board. Let's suggest students, following the authors of the textbook, to write the following sentences using the verb "to be": 1) M.V. Lomonosov is a great Russian scientist; 2) M.V. Lomonosov is the founder of many modern natural sciences (Shustikova, 2011, p. 669).

However, we not only teach students grammatical skills, but also teach them to work with texts of general cultural content. In this regard, the concluding part of working with this text could be a Russian poet's reflection on the scientist. Foreign citizens may be interested in the opinion of the great Russian poet A.S. Pushkin about the scientist, who metaphorically called M.V. Lomonosov the first university: "Lomonosov was a great man. He created the first Russian university. He, one could say, was our first university himself" (Shustikova, 2011, p. 664). In this context, we can also refer to the personalities of the chemist Butlerov, the doctor Botkin, the writer and doctor Chekhov, who studied at Moscow State University. As a homework assignment, to continue independent familiarization with the figure of the outstanding scientist, we can suggest reading the text about Moscow State University named after M.V. Lomonosov from the same textbook. And this is far from all the cultural background that we can expand thanks to turning to these texts.

Special attention deserves the personality of the physiologist I. P. Pavlov, who is the greatest scientist of another period of history, namely the turn of the XIX-XX centuries. Medical students will be interested to get acquainted with the culture of the New Time, learn about the activities of a scientist who made a great contribution to the development of world physiology, studied the nervous system of the body. Socio-cultural competence is formed here through reading the text about a scientist who had a difficult fate, a difficult material situation, but who, despite this, became a great scientist and organized the physiology department at the Institute of Experimental Medicine in 1891. The text about this scientist is also proposed for joint reading with the teacher in the class. The text "Ivan Petrovich Pavlov" can be found in the modern textbook "Russian language for you" (Shustikova, 2009). After the text, it is proposed to answer questions related to understanding the main content: "What education did Pavlov receive?", "Why did Pavlov choose physiology as his specialty?", "What can you say about Pavlov's character?" (Shustikova, 2009, p. 122). Students should also complete a number of grammar tasks related to different voices of participles and repetition of the category of time. The authors are convinced of the high effectiveness of complex work on the text, which involves the use of a large number of vocabulary and grammar exercises aimed at achieving grammatical correctness of statements, as well as communication-oriented exercises aimed at understanding the text. As the main treating methodology for creating social cultural environment while teaching Russian as a foreign language the authors propose to use culture study content. A comprehensive analysis of texts devoted to the biography of famous Russian scientists is carried out, which allows medical students to get acquainted with Russian science and culture. The concept of "socio-cultural competence" is analyzed as a multidimensional social, cultural, psychologic and pedagogic phenomena, connected with different communicative arrangements and influencing the process of a foreign student's personal development and his successful interaction with university in Russia.

Conclusion

Every country has its own history and cultural values and for these reasons such educational texts of a cultural nature are used by all experienced Russian as a Foreign Language (RFL) methodologists with the aim of making RFL learning more interesting, culturally rich,

establish intercultural communication and develop sociocultural competence, diversify the general cultural background of students and potentially give the opportunity to immerse oneself in the language, as in existence, in the national image of the world. Medical and biological profile students, who are educated in leading Russian universities, despite their non-humanitarian profile, should not be deprived of attention in this aspect, as well as are obliged to study Russian culture and science through the activities of great scientists, chemists, physiologists, mathematicians, historians, like Mikhail Vasilyevich Lomonosov and Ivan Petrovich Pavlov were.

In conclusion, this study has shown that culturological texts are a valuable tool for teaching RFL.

Culturological texts can help students develop intercultural competence, diversify their general cultural environment, and immerse themselves in the language and culture of the country where it is spoken.

Students of a medical and biological profile should also have the opportunity to study Russian culture and science through the activities of great scientists. This study has some limitations, such as the small sample size and the qualitative nature of the study. Future research is recommended to confirm these findings with larger samples and using quantitative methods. It is also recommended to investigate how culturological texts can be used more effectively to develop intercultural competence in RFL students.

Reading cultural texts allows students from different countries to establish intercultural communication, become more tolerant of each other and raise the general sociocultural background of development, which today is axiologically necessary in the conditions of globalization and the transitional nature of our century's culture.

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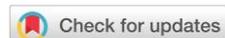
Manipulation of lexical choice aspects in the creation of stereotypes and ideas in Russian propaganda

Маніпуляція аспектами лексичного вибору у створенні стереотипів та уявлень у російській пропаганді

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Abstract

The aim of the research is to analyse the mechanisms of manipulation of lexical choice aspects in the creation of mass stereotypes and ideas in Russian propaganda (based on examples of the analysis of Russian mass media and blogs). The research employed the methods of quantitative, comparative, and statistical analysis. In the course of the study, results were obtained in the form of a count of lexical units used in five sources of Russian propaganda and an assessment of their meaning. The results give reason to draw a conclusion about the use of certain lexical choices (euphemisms, emotionally charged vocabulary, slogans, hate speech, historical myths and falsifications) by Russian propaganda to redefine military realities and justify the war crimes of the Russian occupation army. The academic novelty of the study is the selected various academic sources to illustrate the imperial thinking of Russian mass media correspondents. Prospects. Further research may diversify the materials for the lexical analysis of the mechanisms of Russian propaganda in mass media.

Keywords: propaganda materials, lexemes, lexical choice, manipulation of consciousness, propaganda, word combinations.

Анотація

Метою дослідження є аналіз механізмів маніпуляції аспектами лексичного вибору у створенні масових стереотипів та уявлень у російській пропаганді (на прикладі аналізу російських ЗМІ та блогів). У дослідженні використано кількісний, компаративістичний та метод статистичного аналізу. В ході дослідження, отримано результати у вигляді підрахунку лексичних одиниць, використовуваних у п'яти джерелах російської пропаганди, та оцінці їхнього
значення. Результати дають підставу зробити висновок про використання певного лексичного вибору (евфемізми, емоційно забарвлена лексика, гасла, мова ворожнечі, історичні міфи та фальсифікації) російською пропагандою для перевизначення військових реалій та виправдання воєнних злочинів російської окупаційної армії. Наукова новизна дослідження полягає у виборі різнорідних наукових джерел для ілюстрації імперського мислення дописувачів російських ЗМІ. Перспективи: Майбутні дослідження зможуть урізноманітнити матеріали для лексичного аналізу механізмів російської пропаганди в ЗМІ.

Ключові слова: агітаційні матеріали, лексеми, лексичний вибір, маніпуляція свідомістю, пропаганда, словосполучення.

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Introduction

Relevance

In connection with the active phase of the Russian-Ukrainian war, Ukrainians face new challenges in terms of the need for not only physical, but also informational self-defence against hostile propaganda. It is important to analyse the mechanisms of propaganda used in mass media, official sources and speeches of public figures of the Russian Federation in order to understand how to build counter-propaganda mechanisms.

The need to define the term "lexical choice" is significant. A. Lan and I.Paraboni characterize lexical choice as "the task of choosing words to express the meaning of a representation of a particular definition" (Lan & Paraboni, 2018, 2999). Accordingly, researchers characterize the phenomenon of lexicalization of descriptions as the implementation of the task of selecting the most relevant signifiers for a certain described concept. We observe the phenomenon of linguistic variability in the selection of certain characteristics of an object or phenomenon, which may change depending on the speaker's perspective. This gives grounds to draw a conclusion about the dependence of the interpretation of information by perceivers in a certain way depending on the lexical choice of media representatives or other figures who shape public opinion.

A corpus study is usually carried out for the analysis of lexical choice, which is based on the collection of linguistic samples, most often used to denote a particular phenomenon (Lan & Paraboni, 2018, 2999). In this study, the methodology will be distinguished by focusing not only on the lexical meanings of certain myths of Russian propaganda, but on the contexts of their use and the purpose of using certain characteristics to create a false media reality.

In connection with the active phase of the Russian-Ukrainian war, Ukrainians face new challenges regarding the need to protect not only physical but also informational space from aggressive propaganda. In the modern world, information has become a potent weapon capable of influencing consciousness and people's thoughts and actions. Understanding this, Russia uses propaganda as a critical tool to achieve its political goals. The article mainly focuses on analysing one of the main aspects of Russian propaganda - the manipulation of lexical choice. The study's primary purpose is to reveal how, through the skilful use of certain words and expressions, Russia forms stereotypes and ideas that are beneficial to it and how this affects society's perception of reality.

Unexplored issues

Issues that currently require research and analysis are the nature of the use by representatives of the Russian authorities of the lexical choice of residents of certain territories for geopolitical purposes: in order to justify their own imperialist actions in the form of occupation of the territories of other states. The academic novelty of the research is the examination of the imperialist nature of not only the official propaganda of the Russian government, but also the latent and conquering thinking of representatives of the opposition mass media and blogs of the Russian Federation. Researchers usually focus on the use of the language issue only with the aim of establishing a totalitarian system directly by the Russian authorities, forgetting about the imperial thinking of opposition representatives as well, which leads to the need to abolish Russian culture in a broader sense, without attempting to search for its more conscious representatives.

Aim

The aim of the study is to analyse the mechanism of manipulation of lexical choice aspects in the creation of stereotypes and ideas in Russian propaganda.

Objectives/questions

The aim of the research implied the fulfilment of the following research objectives:

1. Describe the nature of the manipulation of aspects of lexical choice in the rhetoric of the official sources of the party representing the Russian government - All-Russian Political Party "United Russia".
2. Analyse the use of lexical choice to appeal to the myth of the unity of peoples in the propaganda carried out by the media resources of the Russian occupation administrations in the temporarily occupied territories;
3. Demonstrate the discovery of imperial mythologemes in the worldview of even apparently oppositional Russian bloggers and media figures.

Literature review

Means of Russian propaganda are the subject of lexical analysis of a significant number of studies. Furthermore, the use of certain lexemes to spread narratives broadcast by the Kremlin authorities is analysed.

First of all, there are theoretical studies of the use of the "lexical choice" category. In particular, A. Lan and I. Paraboni analyse the specifics of the lexical choice made by different individuals when describing the features of identical human faces. The phenomenon of lexicalization of descriptions illustrates the variety of epithets used by a person to describe the same object or phenomenon according to the five most common psychological dimensions of human personality – openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Lan & Paraboni, 2018, 3000).

Apart from that, A. Hampton and V. Shalin (2017) analyse the factors of lexical choice among synonyms of certain characteristics of phenomena described in the media. The terms which are most often chosen among antonym pairs to describe natural disasters were identified using the example of Twitter coverage of Hurricane Sandy, the tornado in Oklahoma, and the Boston bombing.

Special attention is paid to the comparative analysis of lexemes used in the mass media to describe the realities of the Russian-Ukrainian war. Therefore, E. El Fallaki (2022) and A. Graef (2023) analyze propaganda in the media and political publications. M. Osnabrügge et al. (2021) examine the features of political texts in general. O. Komarnytska and M. Karpushyna (2022) analyze the lexical and grammatical features of reporting on the course of military operations. N. Roman et al. (2017) and S. Stankova (2023) describe the specifics of the formation of media discourse of information warfare in the world. M. Lorincz (2023) examines lexemes used by reputable British news outlets in describing the positions of the Ukrainian and Russian governments. As basic methods, the article uses keyword analysis, expression analysis, and lexeme analysis. Hence, the frequency of using negative and positive expressions is compared in order to describe the actions of representatives of the governments of warring countries. Descriptions of linguistic characteristics are based on the specifics of the use of certain lexical and grammatical patterns. A limitation of the study is that

"decontextualized keywords may not be self-explanatory and could potentially lead to incorrect research conclusions" (Lorincz, 2023, 120).

V. Solopova et al. (2023) carried out a lexical analysis of descriptions of the Russian-Ukrainian war in the news Telegram channels of Ukraine, Russia, France, and Romania. Their analysis is aimed both at reviewing the narrative strategies of describing the war in general, and at identifying the most used clichés of propaganda sources. While fake news forms a large proportion of the propaganda tools, propaganda also relies on a specific combination of words, appealing to emotions or stereotypes, 'flag-waving' and detachment techniques, such as red herrings or whataboutism (Solopova et al., 2023, 6). The material of the research is the names, terms and expressions included in the glossary of the National Security Service of Ukraine recommended for use by public figures in diplomatic affairs to describe the realities of the Russian-Ukrainian war. As a result of the analysis of the semantic content of various lexical means used to describe the war, a number of observations were made regarding the nature of their use. Fake news is characterized by an excessively emotional choice of words in order to interest the recipient. Accordingly, sentimental messages with positive and negative semantics were analysed.

Thus, N. Karpchuk and B. Yuskiv (2021) examine the main lexemes used by Russian propaganda using reports from the "Russia Today" resource as an example. The main material for the research was the titles of publications of the outlined media. First, the semantic features of the lexemes of the vocabulary corpus were reconstructed, followed by the creation of a structural thematic model of the expressions most used in propaganda, and the connotative meanings of emotionally charged lexemes were analysed to describe the war. The study is focused on the vocabulary structure of analytical materials and the thematic content of resource messages. The conclusion was made that the personalities of the Ukrainian authorities are of no importance for Russian propaganda, because both Petro Poroshenko and Volodymyr Zelenskyi are described using expressive, negatively coloured vocabulary.

Furthermore, D. Geissler et al. (2023) also conduct a quantitative analysis of Russian propaganda-related lexemes in social networks. In particular, the researchers focus on analysing

the frequency of posts in support of Russia and Ukraine in Twitter. The search for materials was carried out using popular hashtags in support of countries. The Prolific service employees classified the obtained information according to the content into "pro-Russian", "pro-Ukrainian" or "neutral/inaccurate/irrelevant". The Botometer (specializes in detecting bots by analysing account content) and Bot Sentinel (detects not only bots, but also trolls and curated accounts) programmes were used to identify bots (Geissler et al., 2023, 5). Miller's research (2019) is also related to the analysis of emotional vocabulary used by Russian propaganda. For example, pro-Russian news pages, such as the so-called Internet Research Agencies deliver propaganda to the Western media space. Thus, lexemes associated with fear and anger are most often used to manipulate mass consciousness. "…It is worth noting that potentially violent language, including terms such as 'kill', 'hate', 'attack' and 'protest', is present in several themes in both thematic model results". An illustration is the US presidential election, where a positive image was created of the candidate with a more pro-Russian position - Donald Trump, as opposed to Hilary Clinton with a democratic and pro-European course.

In the collection "Wars and Worlds" devoted to the exposure of Russian propaganda, V. Moroz also describes the informational influence of media controlled by Russia in the section "Networks of Illusions"... "Social networks have now become information channels through which authoritarian regimes like Russia export 'hybrid warfare' to democratic countries" (Moroz, 2017, 62). Hence, the author emphasizes that even social networks (for example, vkontakte.ru and LiveJournal), which were oppositional in nature from the beginning of their existence, become pro-government due to the persecution of the owners and the purchase of rights to the holdings of the social networks. As a method of Ukraine's struggle against Russian propaganda, the author singles out the tactics of Internet regulation in the form of blocking the sites of the aggressor country that may contain information posing a danger to Ukrainian sovereignty.

Researcher O. Shaparenko analyses new lexical frames (abbreviation, affixation, formation of new word combinations) that arose when the hydride war, which had been going on since 2014, grew into a full-scale one in 2022. The researcher used the methods of observation, comparative analysis, and synthesis (Shaparenko, 2022). The proposed analysis

reveals a clear connection between society and the language lexicon. The metaphorical and emotional colouring of the used lexemes also becomes important.

Moreover, A. Erlich and C. Garner (2023) investigated the degree of vulnerability of Ukrainian residents to Russian propaganda through social surveys. It was concluded that the majority of Ukrainians perceive Russian propaganda critically and are able to adequately counter it. However, it was noted that Ukrainians, who have a greater ethno-linguistic attachment to Russia, are more vulnerable to disinformation from Kremlin sources.

Methods

Research design

The materials of the research are articles from propaganda Internet resources distributed in the territories temporarily occupied by Russia, namely, Rg.Ru, Gazeta.ru, Tavria.tv, articles from the official website of the largest pro-government party in Russia - All-Russian Political Party "Единая Россия" ("United Russia") and posts from Telegram channels of bloggers who claim about their opposition, having imperial ideas – "Котики и корона на голове Беллы Рапопорт" ("Cats and a Crown on the Head of Bella Rapoport"), "Кровавая барыня" ("Bloody Lady"), etc.

The main lexemes related to the realities of the active phase of the Russian-Ukrainian war are singled out from the titles of the texts and the texts themselves. Their emotional and lexical load is characterized, their lexical choice is justified, and their function in propaganda journalistic materials is explained. Accordingly, lexemes are categorized according to the functions performed in journalistic propaganda materials. Quotations of headlines and wording of bloggers using the outlined phrases are also provided.

Sampling

The choice of methods and materials is determined by the need for a multifaceted study of the specifics of the use of certain clichéd expressions in Russian journalistic materials of different semantic and emotional load and stylistics. The number of analysed sources and their heterogeneous nature can be explained by the need to carry out a careful analysis of their content to a greater extent than to create a larger sample of studied materials. Six disparate

sources – from the official website of the United Russia party to bloggers' records – can be explained by the need for a thorough understanding of the working mechanism of Russian propaganda in the context of an information war, not only in official pro-government propaganda materials, but also in sources that pretend to be oppositional. The selection criterion is the direct or indirect expression of positions that are completely identical or similar to the narratives formulated by the Russian authorities.

The meaning and functions of identified lexical units in Russian propaganda are analysed, in particular, when it comes to the choice of words or phrases of certain semantics among words in a synonymous series. A tendency has been observed for Russian propaganda publications to erase negative connotations associated with terrorism and the illegal occupation of territories, attributing them to the Ukrainian army because of the choice of words with a certain emotional connotation.

Methods

This study employs quantitative (selection and description of lexical units) and comparative (comparison of the nature and connotations of use and semantic meaning of lexemes used in Russian propaganda). Methods of statistical analysis were also used (the number and frequency of mention of certain lexemes were calculated). These methods include attention to lexical choice in the context of using certain words, phrases, and word combinations in order to form a certain vision of the war by its audience. Attention is focused on the meanings acquired by word combinations in certain contexts and on their emotional load, in particular, in situations when Russian propaganda tries to redefine words to denote military realities.

Ethical criteria

The research was carried out independently at each stage - from the selection of sources to the actual process of writing the text. Work on sources in the form of keyword analysis, understanding their meaning, identifying and abstracting key theses was done independently. The principle of irreplaceability of cited sources was observed during the research. The culture of referring to the studies of researchers whose articles are used in the theoretical section of the article has been observed. The contribution of

previous researchers of related issues is noted. The materials are publicly available. No infringing software, including AI, was used when writing.

Results

The choice of words to describe the activities of various military groups is indicative. Moreover, the lexemes "терористи" ("terrorists") and "бойовики" ("militants") are used by the pro-Russian mass media in the temporarily occupied territories to refer to the armed forces, in the context of fake news, which demonstrates the desire to establish a negative image of the Ukrainian army in direct contrast to the term "військові" ("the military") which characterizes members of the Russian occupation army. Sometimes, juxtaposition of these two terms is observed in one sentence of the title: "Более 80 боевиков ВСУ ликвидировали военные группировки «Днепр»" ("The Dnipro military group liquidated more than 80 militants of the Armed Forces of the Ukraine"), "На Херсонском направлении военные РФ ликвидировали место скопления живой силы и лодку ВСУ" ("In the Kherson direction, the Russian military eliminated a place of concentration of militants and a boat of the Armed Forces of Ukraine"), "За сутки военные РФ ликвидировали более 35 боевиков ВСУ" ("In a day, the Russian military liquidated more than 35 militants of the Armed Forces of Ukraine") (Tavria, 2023). In addition, they try to impose the idea of the illegitimacy of the Ukrainian army with the use of word "militants" in order to reinforce the narrative about Ukraine as a whole as a failed state, which favourably coincides with the rhetoric of Russian propaganda about the need to merge the territories of Ukraine and Belarus with Russia. It is also interesting that the lexeme "military" in propaganda news has several meanings:

1. Part of the lexemes "військові кореспонденти" ("military correspondents") and "військові слідчі" ("military investigators"), which should legitimize the actions of the legal bodies of the occupation administration;
2. "Військові" ("The military") in reference to members of the occupying army.

The juxtaposition of the terms "Ukrainian language" and "Russian language" is relevant, as it is the use of the Russian language in the East and South of Ukraine that Russian propaganda tries to use to legitimize armed aggression and

occupation. Therefore, the juxtaposition of the Ukrainian and Russian languages in the news headlines of the media under the occupation authorities is mentioned in the context of portraying the Ukrainian legislation on the de-Russification and the need to use the state language in public places in a negative light — as a violation of the right to self-identification of a person. "Военных ВСУ отправят на курсы украинского языка" ("The military of the Armed Forces of Ukraine will be sent to Ukrainian language courses"), "Рогов: В подконтрольном Киеву Запорожье меняют вывески на русском языке" ("Rogov: they change signs in Russian in Kyiv-controlled Zaporizhzhia") (Rg.Ru, 2024). Besides, examples of statements by Ukrainian media persons regarding the need to use the Ukrainian language are used in a distorted light.

"Экс-депутат Рады Фарион похвасталась ненавистью внучки к русскоговорящим" ("I. Farion, Ex-deputy of the Verkhovna Rada boasted of her granddaughter's hatred of Russian speakers") (Rg.Ru, 2024). News related to the Russian language is also aimed at the fulfilment of such opposite tasks of the propagandists, as the demonstration of measures to spread the Russian language in states whose authorities supported the aggressor country: "Студенты из Китая практикуют свой русский в детском саду" ("Students from China practice Russian in kindergarten"), "Власти провинции КНР Ляонин: Русский в вузах региона изучают 4 тысячи студентов" ("Liaoning Provincial authorities in People's Republic of China: 4 thousand students are studying Russian in regional universities") (Rg.Ru, 2024), on the one hand, while showing how the Russian language is supposedly being repressed in Ukraine and in the Western countries of the world, on the other. In addition to Ukrainian language legislation, the legislation of the Baltic countries is criticized regarding the need for migrants to learn the state languages of their countries of residence. "Минобразования Литвы считает правильным отказ от русского языка как иностранного" ("The Ministry of Education of Lithuania considers it correct to abandon the Russian language as foreign") (Rg.Ru, 2024).

Such a contextual choice is an attempt to justify Russia's colonial expansion of territories under the pretext of the propaganda task of "protecting the Russian-speaking population of other regions" from pretended oppression. Attempts to describe the actions of countries that support the aggression of the Putin government in a complimentary tone are also observed in the use

of the phrase 'national minorities', because the main context in which this idiom is used in the propaganda media is the statement about the concern of Russia and its allies for the rights of national minorities. "Венгрия и Румыния добились от Украины улучшения прав нацменьшинств" ("Hungary and Romania helped Ukraine improve the rights of national minorities") (Gazeta.ru, 2023).

An important place in Russian propaganda is the manipulation of the religious preferences of believers to promote Kremlin narratives. The Russian Orthodox Church (ROCh), which has long been performing the functions of not so much uniting the community of believers as delivering propaganda messages, is mentioned in the Russian mass media in three main contexts:

1. Criticism of the actions of the Ukrainian authorities: "Раскольники избили прихожанина про захвате храма УПЦ на Украине" ("Dissidents beat a parishioner about the capture of the Orthodox Church in Ukraine"), "Зеленский потребовал у Рады принять закон о запрете деятельности УПЦ" ("Zelenskyi demanded that the Council adopt a law on the prohibition of the activities of the Ukrainian Orthodox Church") (Gazeta.ru, 2023);
2. Support for Russian military aggression: "Патриарх доказал допустимость причащения бойцов СВО на историческом примере" ("Patriarch proved the possibility of communion with soldiers involved in a special military operation using a historical example") (Gazeta.ru, 2023).
3. Criticism of Western inclusion and its opposition to "духовних скреп" ("spiritual bonds"): "Глава РПЦ призвал пустить священников на консультации перед абортом" ("The head of the Russian Orthodox Church called on priests to consult before abortion"), "Российские католики выступили против декларации Ватикана о благословении гомосексуалов" ("Russian Catholics opposed the Vatican's declaration on the blessing of homosexuals") (Gazeta.ru, 2023).

The last point of our analysis is an overview of the lexical aspects of the Telegram channels of bloggers who position themselves as the Russian opposition, but demonstrate imperial narratives in their reflections on news concerning Ukraine. Thus, Bella Rapoport, a Russian feminist blogger, despite her participation in protests against the invasion of Ukraine since the

beginning of the active phase of the full-scale war, has now changed her rhetoric to one critical of both sides of the armed conflict, thereby unacceptably equating the aggressor and the victim. We observe irony over calling the Russian occupiers "orcs" (a lexeme borrowed from R.J. Tolkien's novels), and the Ukrainian military — "elves". So, the propaganda function of creating an "ambiguous" picture of the war for the mass media is fulfilled.

"Все эти два года не уставала повторять – отождествление Украины как государства и украинских политиков с гражданами страны, а также бездумное воспевание некоего особого эльфийского народа, не способного на коррупцию, пытки, насилие – в качестве противопоставления оркам, которые по сути своей тлетворной все такие, запрет на разговор о внутренних проблемах – это прежде всего удар по украинцам же" ("All these two years, I hadn't got tired of repeating – the identification of Ukraine as a state and Ukrainian politicians with the citizens of the country, as well as the mindless praise of a certain elven people, incapable of corruption, torture, violence − as a counterpoint to the Orcs, who are inherently corrupt, the ban on talking about internal problems is, first of all, a blow to Ukrainians themselves") (Telegram, 2023). We also see manipulation in the form of speculation about the use of the Russian language by a certain part of the residents of Ukraine as creating a false impression of the common mentality of the peoples. "…Настя Травкина авторка того самого текста, где на примере трех или там четырех пар слов сравнивались украинский и русский языки на предмет того, какой один из них рабский и орочий, а другой — сильный и эльфийский" ("...Nastya Travkina is the author of the same text, where, using the example of three or four pairs of words, the Ukrainian and Russian languages were compared for which one of them is servile and orcish, and which one is strong and elfin") (Cats and a Crown on the Head of Bella Rapoport). The use of the preposition "on" in relation to Ukraine is notable in this fragment, which is an imperial marker of treating Ukraine as a territory, not a state. We can also observe indignation at the translation of Soviet films, and accordingly – their perception as untranslatable and inviolable works (Table 1).

Table 1.
The specifics of the use of lexical units in Russian propaganda

Lexeme	Source	Number of mentions	Meaning
Militants	Rg.Ru	10,000	Negative characteristics of the Armed Forces of Ukraine, creating doubts about the legitimacy of the Ukrainian army
	Gazeta.ru	33,250	
	United Russia's website	650	
	Cats and a Crown on the Head of Bella Rapoport	14	
	Bloody Lady	44	
Terrorists	Rg.Ru	10,000	Negative characteristics of the Armed Forces of Ukraine, Ukrainian activists, and the Ukrainian authorities
	Gazeta.ru	24,258	
	United Russia's website	1,007	
	Cats and a Crown on the Head of Bella Rapoport	63	
	Bloody Lady	118	
The military	Rg.Ru	10,000	Attach a neutral marker to the occupying forces
	Gazeta.ru	187,141	
	United Russia's website	10,000	
	Cats and a Crown on the Head of Bella Rapoport	324	
	Bloody Lady	1,031	
Russian language	Rg.Ru	1,275	The establishment of the Russian language as the language of hegemony
	Gazeta.ru	14,264	
	United Russia's website	1,985	
	Cats and a Crown on the Head of Bella Rapoport	67	
	Bloody Lady	57	
Ukrainian language	Rg.Ru	280	Criticism of Ukrainian language policy, colonialist claims in temporarily occupied territories
	Gazeta.ru	4,540	
	United Russia's website	211	
	Cats and a Crown on the Head of Bella Rapoport	13	
	Bloody Lady	17	

National minorities	Rg.Ru	78	Creation of the illusion of protection of national minorities in the Russian Federation
	Gazeta.ru	2,971	
	United Russia's website	94	
	Cats and a Crown on the Head of Bella Rapoport	1	
	Bloody Lady	3	
New regions	Rg.Ru	5,998	Attachment of a neutral meaning to an act of the occupation of territories
	Gazeta.ru	38,317	
	United Russia's website	10,000	
	Cats and a Crown on the Head of Bella Rapoport	22	
	Bloody Lady	197	
Liberated territories	Rg.Ru	174	Attachment of a positive meaning to an act of the occupation of territories
	Gazeta.ru	5,142	
	United Russia's website	1,297	
	Cats and a Crown on the Head of Bella Rapoport	3	
	Bloody Lady	11	
The Armed Forces of Ukraine	Rg.Ru	7,633	Discrediting the Ukrainian army
	Gazeta.ru	30,730	
	United Russia's website	192	
	Cats and a Crown on the Head of Bella Rapoport	123	
	Bloody Lady	114	

Source: created by the authors based on the results of the study

Exact number of lexical units used in certain publications or blogs were calculated by using the search window on the indicated Russian propaganda websites, with the exact wording of the relevant phrases in the search queries. Table 2 presents a generalization of the use of lexical choice in Russian propaganda.

Table 2.
The use of lexical choice in Russian propaganda

Reception	Example	Analysis
Euphemisms and misinformation	"Special military operation" instead of "war"	Conceals the true nature of the invasion, minimizes its scale and brutality.
Euphemisms and misinformation	"Victims of provocations" or "collateral losses" instead of "civilian victims"	Downplays the significance of the deaths of civilians, blames them for their own deaths.
Emotionally charged vocabulary	"Fascists", "Banderivites", "Nazis" about Ukrainians	Devalues Ukrainians, demonizes them, justifies aggression.
Emotionally charged vocabulary	"The Suffering of the Russian People"	Causes sympathy, mobilizes support for the actions of the authorities.
Repetition and slogans	"Ours for ours", "Russia is us", "Let's protect Donbas"	Simple, memorable slogans that convey messages clearly.
Hate speech	Offensive words and phrases about Ukrainians, LGBT, ethnic minorities	Inflames enmity, splits society.
Historical myths and falsifications	"Russia has always sought to protect the Slavic peoples"	Manipulation of historical facts, mythologizing of the past.
Historical myths and falsifications	"The Ukrainian state has no historical right to exist"	Denial of Ukrainians' right to self-determination.

Source: created by the authors based on the results of the study

Analysing Table 2, it is essential to note that these are only a few examples. Russian propaganda uses a wide range of lexical techniques, which are constantly changing and improving. The ability to recognize and analyse these techniques is of great importance in order to resist them and protect oneself from their harmful influence.

The analysed material gives grounds to conclude about the attempts of Russian propaganda to change the semantics of terms to describe the realities of the Russian-Ukrainian war with the help of a certain lexical choice. We observe how the selection of certain signifiers from the synonymous series performs the function of manipulating consciousness and justifying military aggression.

Discussion

As a result of the application of the described methodology, the main lexemes used by Russian publicists and bloggers to denote the realities of war in order to change the focus of potential propaganda addressees, mostly – the population of the occupied territories, were calculated and analysed by lexical meaning. The selected language means were analysed according to the frequency of use and functional load in propaganda materials. This study can contribute to further consideration of the main mechanisms of propaganda language based on the choice of certain tokens as means of expression. The research could potentially be an interesting opportunity to get acquainted with the analysis of the functions most often performed by certain lexemes in Russian propaganda, as well as with the specifics of the redefinition of terminology related to the description of the Russian-Ukrainian war. Like previous lexical studies, the article focuses on the semantic and pragmatic functions of using certain phrases and sentences in propaganda materials. The difference from previous works is the greater variety of analysed materials – from pro-government news websites to opposition resources.

A theoretical study by Ash et al. (2021) contains a general analysis of the influence of lexical choice on the semantics of the text. Their analysis is statistical and focuses on the evaluation of the frequency of use of certain lexical units in propaganda texts. The group of scientists E. Ash, G. Gauthier, and Widmer, P. (2021) and E. Ash and E. Labzina (2019) also analyse the use of emotionally charged vocabulary in political discourse, which is similar to the issue analysed in this article. As in our study, R. Abbadi et al. (2024) conducted a comparative analysis of the speeches of the presidents of the United States, Ukraine, and Russia during the war.

In the study of H. Siuta (2022), statistical analysis plays a similarly important role, as the author focuses on the lexical and phraseological means of the conscious choice of the Ukrainian language by the majority of the population of Ukraine as the main language of communication with the beginning of the Russian-Ukrainian war. Moreover, the researcher analyses modern Ukrainian political speeches (Siuta, 2019). The political peculiarities of the linguistic choice of residents of the frontline areas are analyzed by G. Hentschel and O. Palinska (2022).

Similar to the content of our study, O. Kononenko focuses on lexical changes that occurred as a result of the Russian-Ukrainian war. However, unlike the outlined article, the material for its research is the change in the lexical composition in the Ukrainian language, in particular, the appearance of neologisms, lexemes-indicators, etc. so-called the "linguistic shield" formed by key words that help to identify the language of the occupiers (Kononenko, 2023). The emergence of soveregnomims and other types of Internet neologisms during the Russian-Ukrainian war is analyzed by V. Zaskaleta et al. (2023) and O. Horkusha (2023). In addition, N. Kramar (2023), A.Tkach and M. Tkach (2023) examine modern Internet slang.

D. Racek et al. (2023; 2024) also perform a statistical analysis, studying the change in language behaviour and language choice of Ukrainians since the beginning of the full-scale war using the material of Twitter posts. A. Halich et al. (2023) also investigate the specifics of Internet communication during the Russian-Ukrainian war. O. Kravchenko and N. Fedotova (2022) also study the lexemes that denote the realities of war, furthermore, in the form of enrichment of Internet folklore, analysing language games in the era of actualization of the contrast between "own" and "other". The researchers also analyse how demonic images are transformed in modern Ukrainian folklore in connection with the war (Kravchenko et al., 2022).

I. Bozhko's (2022) choice of research issue is similar to our topic, as it deals with onymic lexical units for expressing hate speech to denote the realities of the Russian-Ukrainian war.

We can also mention the study of I. Renchka (2020), where the linguistic behaviour of Ukrainians during the war is analysed by using a descriptive and comparative method based on the story Dotsia (Daughter) by Tamara Gorikha-Zernia. In contrast to our research, the material is a text not in a journalistic style, but a fiction. The author also has a study of changes in the semantics of lexical unities in Ukrainian economic lexicology, which is also characterized by interdisciplinarity (Renchka, 2018). S. Fiialka (2023), similarly, chooses Ukrainian war poetry as her research material. Among the interdisciplinary works, we can also single out S. Tereschenko's analysis of the stylistic oppositions of humorous texts during the Russian-Ukrainian war (Tereshchenko, 2022).

The reception of the Russian-Ukrainian war in folklore is studied by O. Kravchenko et al. (2022) and O. Lysenko (2023), where one can trace the disclosure of the specifics of lexemes used to denote the realities of war not only in journalistic sources (as in our study) but also in oral folklore.

Recommendations

In order to avoid the limitations of this academic article, it is recommended to get acquainted not only with the sources of official propaganda of the Russian mass media, but also with those that contain hidden propaganda messages. This will make it possible to better understand the role of lexical choice in written sources of Russian propaganda, to understand the requests of their target audience and to conduct a productive counter-propaganda information campaign.

Conclusions

The relevance of the work is the need to analyse the aspects of the lexical choice in Russian propaganda in order to resist the narratives imposed by the propaganda materials of the Russian pro-government mass media in the information war. The research revealed the use of certain lexical choices (euphemisms, emotionally charged vocabulary, slogans, hate speech, historical myths, and falsifications) employed in Russian propaganda. The number of lexemes used in selected journalistic sources of Russian propaganda were identified in the course of the study. They were classified according to their meaning and functions performed in propaganda materials, moreover, in the temporarily occupied territories. The number of lexical units used in Russian propaganda to denote the realities of war was statistically calculated. The outlined results are graphically presented in the form of a table. The analysed pro-Russian mass media most often use the phrase "the military" (to denote the occupying forces) (208,496 lex. units), "new regions", "militants" (43,928), negative characteristics of the Armed Forces of Ukraine (38,792), "terrorists" (35,446) etc. The results of the study will contribute to a better understanding of the propaganda mechanisms of the Russian propaganda media. They can be used in further lexical, sociolinguistic, and political studies on the linguistic deconstruction of imperial narratives. Research prospects. Further research may focus on deepening the statistical analysis of lexemes used by Russian propaganda, with the addition of the method of field research in the form of anonymous questionnaire surveys, among others. The lexical idioms that are created in the occupied territories to indicate the realities of war can also be studied.

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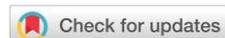
Physical education of students in the conditions of distance education

Фізичне виховання студентів в умовах дистанційного навчання

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Abstract

The article shows the importance of the role of motor activity in human life. The specially organized motor and physical activity of the student is distinguished, and the importance of vocational and applied physical training and general special physical training of the student for a person is proven. To overcome adaptation and transfer the whole organism to a higher level of functioning, movement qualities of different scales of influence are grouped. Ways to create effective conditions are shown for teaching the rational technique of sports movements. The purpose, task, organization, and stages of the process of physical education in higher education institutions in distance form are disclosed. The most effective methods and techniques in the conditions of distance learning, which change the attitude of students toward their health care, are analyzed. An experimental study of the analysis

Анотація

У статті показано важливість для життєдіяльності людини ролі рухової активності. Розрізнянуто спеціально організовану рухову і фізичну активність студента, доведено важливість для людини професійно-прикладної фізичної підготовки та загальної спеціальної фізичної підготовки студента. Для подолання адаптації і переведення всього організму на більш високий рівень функціонування згруповано рухові якості різного за масштабами впливу. Для навчання раціональної техніки спортивних рухів показано шляхи створення ефективних умов. Розкрито мету, завдання, організацію та етапи процесу фізичного виховання в закладах вищої освіти в дистанційній формі. Проаналізовано найдієвіше методи та прийоми в умовах дистанційного навчання, які змінюють відношення студентів до свого

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of the daily motor activity of students of higher education in the conditions of distance learning was carried out. Recommendations for overcoming the negative manifestations of distance learning have been developed and the most significant ways of reducing a sedentary lifestyle and maintaining an active physical form have been highlighted.

Keywords: physical education, distance learning, students of higher education, institutions of higher education, student's physical activity.

здоров'язбереження. Проведено експериментальне дослідження аналізу добової рухової активності здобувачів вищої освіти в умовах дистанційного навчання. Розроблено рекомендації для подолання негативних проявів дистанційного навчання та виокремлено найбільш значущі способи зменшення малорухливого способу життя та підтримки активної фізичної форми.

Ключові слова: фізичне виховання, дистанційне навчання, здобувачі вищої освіти, заклади вищої освіти, фізична активність студента.

Introduction

At the current stage of the development of the higher education system, the issue of preserving and strengthening the health of the younger generation remains quite acute. During the quarantine and in connection with the war on the territory of Ukraine, institutions of higher education had to switch to distance learning, and this, in turn, led higher education students to reduce physical activity, and the performance of exercises and processing of materials began to be carried out on their own and processing. Therefore, now, to strengthen the psychological and physical health of young people, there is a need to strengthen the role of physical education in institutions of higher education and create conditions for the full realization and physical development of the younger generation during the educational process, organized based on special modern general scientific technologies, methods, theories, practices of physical culture (Babadzhanian et al., 2023).

Currently, the effectiveness of the physical education system, taking into account modern challenges, depends on modern technologies, their optimal use, and their capabilities, which makes it possible to ensure the delivery of information based on the use of ICT in an interactive mode and is the main strategic direction of the development of the physical education system in higher education. In this way, it is possible to activate the transition of the educational sphere of physical education from the traditional form of education to distance learning among students of higher education institutions.

In the conditions of the introduction of a distance form of education, the decrease in motor activity of students of higher education requires the search for methods of interaction with students, new approaches, and an adequate selection of

tasks, goals, organizational forms, means and methods of physical education to prevent the phenomena of social maladjustment and create the possibility of maintaining an appropriate level of physical health. I am a personality. One of the key problems in this case is the proper organization of physical culture and health activities of students of higher education in conditions of extremely limited motor activity to preserve their health (Leshchenko & Zakharova, 2022).

The traditional approach to the use of professional methods and tools in the system of physical education of students of higher education in institutions of higher education lost its relevance due to its imperfection and turned out to be somewhat ineffective. Therefore, the improvement and modernization of the process of physical education of students of higher education is a necessary condition for distance learning for the formation of a healthy lifestyle of student youth through the perception of norms of behavior, the ideal, and awareness of the negative impact of factors on the psyche and body of an individual as a condition for the preservation of humanity (Bielkova et al., 2021).

Literature review

With the help of innovative technologies and teaching methods, a lot of attention in modern scientific research is given to the problem of transformation of the system of physical education and sports. In particular, researchers A. Vakoliuk, V. Sheliuk, & N. Symonovych (2021) characterized the ways of using innovative modern technologies and showed their features. O. Shkola, & D. Shkalenko (2022) performed an analysis of the key directions of improvement of the physical education of students and wrote out a system of modernization

of the physical education of students. Australian scientists Bauer, & Sturman characterized the main educational opportunities of modern technologies.

F. Meng (2017) singled out the peculiarities of the formation of the club model of education in universities and colleges.

A. Andres, R. Pavlos, O. Korol, & O. Bezhrebelna (2021) and A. Hammami, B. Harrabi, M. Mohr, & P. Krustrup (2022) prove that "the task of physical education in the new realities of distance education is the need to ensure students' understanding of the threats of a lack of physical activity, as well as to help by all possible means to compensate for its lack in the daily routine." L. Tsovh, O. Kuspysh, Ya. Zubrytskyi, & O. Rozhko (2020), prove that "the importance of physical education lies in the formation of sustainable motivation for health care and the development of students' need for physical self-improvement."

R. Pavlos A. Kuspish, S. Nezhoda, & M. Havrylenko (2021) physical education is considered in institutions of higher education as "a practical subject that is extremely important for health and well-being".

T. Bielkova, Zh. Malakhova, & N. Pastushkova (2021) devoted their research to outlining in the process of physical education the ways to solve the problem of forming a healthy lifestyle for students of higher education, which encourages self-development, stimulates independent work, requires the search for scientific developments of distance learning conditions and special pedagogical attention to solving shortcomings in education.

V. Babadzhanian, N. Semal, N. Beseda, V. Farionov, & O. Kurii (2023) showed the peculiarities of the organization in higher education institutions of physical education of students during physical exercises, revealing the shortcomings of distance learning. It has been proven that "the main task of the modern system of physical education in institutions of higher education is: increasing the level of physical fitness of students, providing optimal conditions for their physical development, forming the need for systematic physical exercises".

M. Zhang, J. Mai, & Z. Liao (2021) consider the issue of physical education of students in the conditions of distance learning and reveal ways to ensure the effectiveness of physical education

of students in the conditions of distance learning. The same questions are considered by T. Hurtova, & S. Ponomariov (2022). It was established that "the organization of effective distance learning, the adaptation of the educational process of physical education to the requirements of today consists in ensuring the physical development of students based on increasing the level of their physical activity".

Kh. Shavel, Yu. Boiko, & L. Sokolenko (2023) analyzed innovative models of student training in the field of physical education and sports, among higher education students, they singled out the most popular innovative models of the organization of the educational process (modular learning, problem-based learning, contextual learning, a model of full knowledge acquisition, distance learning, club learning).

Yu. Petrenko, & I. Makhonin (2020) during the period of forced quarantine focused attention on the importance of students' physical activity in the process of distance learning and noted that maintaining physical fitness in quarantine conditions is a necessary condition for the prevention of mental and physical health disorders, with the involvement of information technologies justified ways to increase physical activity of students.

In the implementation of the physical education of students H. Leshchenko, & O. Zakharova (2022), the target direction of distance learning is singled out; to create an opportunity to support the appropriate level of physical activity of students of higher education, they proposed a system of organizational forms, means, and methods of physical education; revealed the content of vector information technologies in the process of distance learning. It was found out that "the application of distance learning technology allows to ensure holistic multi-faceted physical education, aimed at preserving and strengthening the health of students in a situation of forced restriction of their motor activity".

Therefore, much attention is paid in modern scientific research to the problem of improving the system of physical education. In particular, the researchers characterized the ways of using innovative modern technologies, showed their features, analyzed the key areas of improvement of physical education of students, outlined the system of modernization of physical education of students, highlighted in universities and colleges the peculiarities of the formation of the club model of learning, showed the importance of

physical education for the formation of sustainable motivation for health preservation and development of students' need for physical self-improvement. In institutions of higher education, scientists consider physical education as a practical subject that is extremely important for health and well-being, in the process of physical education, they outline ways to solve the problem of forming a healthy lifestyle for students of higher education, which stimulates independent work, encourages self-development, requires searches for scientific developments of distance learning conditions, solutions to deficiencies in education, substantiation of ways to increase physical activity of students. However, the physical education of students in the conditions of distance learning requires thorough study and improvement in the present.

Purpose of the research: to analyze the most effective methods and techniques in distance learning conditions that change the attitude of students to their health care; conduct an experimental study of the analysis of daily motor activity of higher education students in the conditions of distance learning and develop recommendations for higher education.

Methodology

To achieve the goal of the research, general scientific methods of scientific knowledge were used: theoretical – to outline the conceptual boundaries of the studied phenomenon and its semantic load – analysis of normative sources, psychological-pedagogical, philosophical, methodological literature, scientific work of scientists on the problem of physical education of students in conditions of distance learning and originality their work in today's conditions; analogy, classification, logical-systemic analysis, induction, deduction, generalization of practical and scientific-theoretical data – to determine the conditions for the formation of physical education of students in the conditions of distance learning; comparison of the received data – to find out dependencies and cause-and-effect relationships; empirical – surveys, questionnaires, observations, conversations – to check and clarify the effectiveness of implementation of recommendations; pedagogical experiment – to determine effective ways of physical education of students in the conditions of distance learning and to check the effectiveness of the proposed conditions; qualitative and quantitative analysis of research results using methods of mathematical statistics – to verify the results of the experiment.

An experimental study of the analysis of daily motor activity of students of higher education in the conditions of distance learning. We introduced into the educational process the Framingham method of timing the motor activity of a person during the day to assess the amount of motor activity of student youth. The method included five levels: basic, sedentary, small, moderate, and intensive:

- the basic level includes: lying down rest, human sleep;
- to the sitting level: working at the computer and the table, listening to music, reading, watching TV programs, etc.;
- to a small level: classes at a higher education institution, movement on all types of transport, personal hygiene, walking;
- up to a moderate level: yard work, regular walking, repairs, housekeeping, ballroom dancing, etc.;
- up to an intensive level: running, strength sports, dancing, fast walking, long swimming, household work, etc.

The optimal index of motor activity according to the Framingham method corresponded to 42 points, and predicted motor activity:

- at the basic level – 8 hours;
- sitting – 8 hours;
- at the level of low physical activity – 2 hours;
- at the average level – 3 hours;
- at the level of high physical activity – 3 hours.

Research work was carried out by institutions of higher education in Ukraine. 217 students (117 girls and 100 boys) took part in the study.

The classes were conducted by 6 teachers who acted as program experts at the same time.

All students of higher education were divided according to the levels of motor activity depending on the obtained results (high, medium, low).

The results of the conducted research indicate the need for distance learning to be introduced into the daily routine of each person: specially organized and independent physical exercises, walks in the fresh air, morning gymnastics, etc. because the formation of a healthy lifestyle of students of higher education is based on the need to introduce health and preventive programs, which gives reason to assert in the conditions of distance learning about positive changes in the

indicators of motor activity of students of higher education, thanks to the use of means of physical education – preservation of their health.

Results and discussion

1.   The role of motor activity in human life

Physical work is a natural need for all systems, tissues, organs, and the body where large groups of muscles are involved. Normal activity of the bone, muscle, neuroendocrine, respiratory, and cardiovascular systems is possible only with a certain amount of movements performed during life, that is, a dose of motor activity (Petrenko, 2019). Physical activity is the main determinant of energy expenditure and is therefore crucial for weight control and metabolism. Reduces the risk of developing non-communicable diseases by 60 minutes of daily physical activity from moderate to high – by WHO recommendations. Systematic motor activity helps to strengthen nerve connections, improve blood circulation in the brain, prevent stress and depression, and slow down the process of cell loss. All this has a positive effect on a person's mental abilities. Motor activity is a powerful factor in preserving memory, slowing down the aging process of the brain, and improving thinking efficiency (Koval, 2018).

Specially organized movement and physical activity are distinguished.

Habitual motor activity includes types of movement aimed at educational and production activities and the satisfaction of natural human needs. Physical activity is one of the most effective prerequisites for the formation of physical qualities and a healthy lifestyle, so it can only be achieved through systematic training. Thus, in today's conditions, physical activity is sharply reduced among distance learning students, and the time spent sitting has increased. Versatile and in-depth studies of the educational process and detailed development of specific methods are necessary, taking into account the effectiveness and purposefulness of the implementation of information technologies and; the creation of a new innovative and diverse model of the entire process of physical education (Ashanin & Filenko, 2018), including remotely. Therefore, the involvement of information technologies in the educational process is currently a rather relevant tool.

In the modern realities of our society, there is an opportunity to conduct online classes, watch videos, provide consultations, and training, and use various information resources. A qualitative transition to an information high-tech society for the control of motor activity involves the development of modern information and communication technologies. The appearance today of software applications for various smartphones, various smart watches, fitness bracelets, and sports bracelets makes it possible to use them for operational control to determine various functional indicators of the human body. One of the factors in improving the health of the nation, which is a priority, is ensuring the optimal physical activity of student youth. The physical activity of higher education students is significantly influenced by their physical culture and sports orientation. It is the physical culture and sports orientation that is a system of organically combined needs, values, and interests inherent in a person, which determine the motives of activity and behavior, the main directions, form the results in the process of physical education classes, promote participation in physical culture and mass sports events during independent physical exercises and sports (Petrenko & Makhonin, 2020).

2.   General, special, and professional-applied physical training of the student

The physical training of a higher education student is divided into general, special, and professional-applied.

The general physical training of a student of higher education is aimed at the harmonious development of the personality, provides an increase in the functional capabilities of body systems, organs and contributes to the improvement of physical qualities, improvement of coordination abilities, motor skills, and skills, is achieved by the constant influence on the human body of special and general developmental exercises of various types sport (Bida et al., 2019).

Special physical training contributes to the development of exactly those functional capabilities of the body, on which achievements in sports depend, and at the same time, competitive exercises and special preparatory exercises from a certain type of sport serve as the main means.

One of the main directions of the physical education system is vocational and applied physical training, which is designed to form special and physical abilities, skills, and qualities

that contribute to the achievement of a person's readiness for successful professional activity. To a large extent, the training effect of classes is determined by the type and nature of the exercises performed, which are divided into the following groups using training: special-preparatory (specific); general training (non-specific); main competition (special) (Leshchenko & Zakharova, 2022).

3. Movement qualities of different scales of influence to overcome adaptation and transfer the whole organism to a higher level of functioning

One of the ways to transfer the whole body to a higher level of functioning and overcome adaptation is strength and speed-strength exercises, which are performed with high intensity (preferably on training devices) and are different in terms of impact. Such exercises:

– significantly intensify the training process;
– selectively affect various muscle groups, including lagging ones;
– such classes are more emotional.

Different motor qualities reach their natural maximum development at different ages. Age periods are called sensitive because they are characterized by significant changes in the body's age-related development. Special training in certain periods has a higher effect on the development of certain qualities. Therefore, one should take into account the most favorable age for the development of certain qualities in the long-term training of higher education seekers. In particular, take into account that the student must have perfect technique in the chosen sport to achieve high sports results.

4. Creation of effective conditions for learning the rational technique of sports movements

The essence of sports technique (taking into account biomechanical laws) for a better solution during the exercise of the motor task facing the student lies in the intelligent use of their motor abilities by students of higher education. The formation of a dynamic stereotype, conditional-reflex connections occurs as a result of multiple repetitions of the same exercise, which conditions the creation of skills and the performance of the necessary movements.

It is very important when teaching techniques to specifically teach students of higher education the ability to quickly perform movements, to

show significant muscle and volitional efforts, and to relax muscles in time. If you are not afraid to use additional complications, and more widely apply complicated and simplified conditions, then this side of training will be carried out much more successfully.

The opportunity to repeat the most difficult conditions of the task contributes to the polishing of skills to a level that is practically unattainable during the natural educational and training process. There is a danger of creating false skills, which can then be transferred to the technique of the main exercise when practicing a technique that requires high coordination of movements. Therefore, when creating effective conditions for learning the rational technique of sports movements, it is necessary to take into account:

– exercises must correspond to the characteristics of movements or their elements when performing the main sports exercise;
– exercises must have the following characteristics: spatiotemporal (acceleration, speed), spatial (trajectories of movement), dynamic (magnitude of acting forces);
– when performing exercises, the degree of muscle tension, the nature of muscle work, the sequence of inclusion in work, relaxation, etc. should contribute to the real conditions of the main sports exercise.

Such training will contribute to the stability of motor skills and automation. One of the main reasons for the vast majority of technical errors in all cyclic sports exercises is excessive or untimely activity of functionally secondary fast muscles (Bida et al., 2018).

5. Purpose, tasks, organization, and stages of the process of physical education in institutions of higher education in distance form

Nowadays, we are observing a change in the approach to physical education in institutions of higher education in connection with the forced transition of students of higher education to distance education.

Free choice of the intensity of physical activity and forms of physical activity became a priority because there is a transition from a system focused on the development of motor skills, physical qualities, and abilities to a system aimed at acquiring knowledge about the body as a whole and the mechanisms of functioning of

body systems. means of influencing physical performance, physical condition, ways of preserving professional longevity, general health, systematic physical education, and sports, and formation of the need for a healthy lifestyle. In the conditions of distance learning, the goal of physical education to ensure compliance with the regime of physical activity, as much as possible with the adoption of quarantine safety measures, is to form an imagination about the use of all possible forms of physical education adapted to the realities of today. "At the same time, the result should be the acquisition of a high level of physical fitness, which is a prerequisite for preserving health, in the conditions of hypodynamism caused by the introduction of quarantine restrictions, let's consider the defining goal of physical education in a distance format." Physical education of students of higher education is a means of acquiring new knowledge and skills for independent physical activity, and not only a means of forming skills and abilities.

The main task of physical education is defined as the opportunity to lead a healthy lifestyle during quarantine, to remain active, to engage in physical self-development during quarantine, and to understand that there is no quarantine for physical activity.

A specific feature of physical education is its focus on the biological sphere, which distinguishes it from education and mental education: the development of motor qualities, changes in the functional capabilities of individual body systems, and increasing resistance to external factors (Pavlos et al., 2021).

The transition to distance learning provides an opportunity through the organization of individual training of students to solve physical education tasks.

The organization of the educational process of physical education in distance form involves the implementation of its following stages:

–   diagnostic testing of functional indicators of a person, physical development of the personality, physical fitness of the student;
–   defining the goal and setting the objectives of physical exercises;
–   study of theoretical material necessary for building one's own system of physical exercises;

–   conducting and organizing independent physical education classes;
–   correction of the individual plan and consultation with the teacher through messengers (Leshchenko & Zakharova, 2022).

Remote work of the process of physical education in institutions of higher education is based on the use of physical exercises to improve the physical fitness of students and their further self-improvement. The main task of the process of physical education in institutions of higher education is to help students independently develop a system of physical activity habits.

Proper organization of rest and work, a healthy lifestyle, which includes giving up many harmful and harmful habits, along physical exercises, are important for raising the level of life and successfully mastering educational material.

The process of physical education in institutions of higher education consists of specially organized cognitive activities of students and educational activities of the teacher. The effectiveness of education depends on the preparedness and capabilities of students. A physical education teacher needs to ensure students' mental motivation and readiness to master physical exercises, to be able to correctly determine the level of development of physical qualities of an individual. When a student is aware of the need to acquire new abilities, knowledge, and skills, then learning exists as an activity, and the teacher, at the same time, is aware of the need to transfer knowledge. An integral part of the formation of the professional and general culture of the personality of a modern specialist is physical education, the system of humanistic education for education seekers (Babadzhanian et al., 2023).

Let's make a generalization based on the systematization of knowledge. In the conditions of distance learning, the content of physical education is formed in such a way as to ensure:

–   hardening of students' bodies, strengthening of human health, promotion of work capacity and physical development of higher education students;
–   improvement and formation of motor skills, knowledge and skills;
–   acquiring knowledge about the influence of physical exercises on the activity and development of the body, about physical activity and its importance for human health;

- formation of the habit of doing physical exercises before systematic classes;
- development of the student's basic physical qualities;
- acquisition by students of knowledge of the basics of health care and physical culture, promotion of a healthy lifestyle, strengthening and formation of the interest of students of higher education in health care;
- awareness of the health-improving effect of physical education on health preservation in the conditions of distance learning;
- mastering the methods and means of strengthening individual health and modern healthcare technologies;
- mastering the conditions of distance learning health improvement means for self-correction of health, methods, and techniques of self-assessment, self-diagnosis, and various forms of physical activity.

Modernization of approaches and radical changes are required by distance learning to the organization of physical education to ensure the effectiveness of its goals. This approach requires the selection of methodical means and methods of transferring educational information to students of higher education, which, with the least expenditure of time, will contribute to the effective solution of tasks of different content. This leads to the organization of classes on an integrative basis: information is provided using examples of the practical implementation of acquired knowledge in quarantine conditions using remote technologies.

6. Methods and techniques in distance learning conditions that change the attitude of students to their health care

It is necessary to develop such methods and techniques that, in the conditions of distance learning, contribute to changing the attitude of students toward their health care (Kuzminskyi et al., 2021). We believe that the following should be implemented:

1. When determining the place of specific topics in the conditions of distance learning in the educational process, it is necessary to take into account the direction and terms of the content of physical education in the conditions of quarantine.
2. The planning of classes should be started by taking into account the preferences of students, determining the content of each topic of the program, and the permissible time limit during classes for the presentation of relevant information.
3. The principle of providing information based on each topic in the optimal volume should be laid.
4. The presentation of the theoretical material in terms of volume must be planned in parts that fit into the content of a specific cycle of classes and structure without harming the physical activity of the student.
5. Regarding the prevention and transmission of COVID-19, it is necessary to provide for educational work.

For the health of students, the volume, not the intensity, of physical activity is of leading importance in the conditions of distance learning (Kuchai & Demianiuk, 2021). Therefore, it is necessary to pay attention to the formation of the usual lifestyle of higher education students, which ensures regular physical activity. Strengthening the role in the physical education of self-employed students is a significant opportunity to optimize the physical activity of students of higher education in the conditions of distance learning (Hurtova & Ponomariov, 2022).

7. An experimental study of the analysis of daily motor activity of students of higher education in the conditions of distance learning

In the educational process of higher education institutions, physical education, as a component of the general education system, involves a comprehensive approach to forming physical and mental qualities of the individual, ensuring the development of health and its foundations, preparation for an active life, improving physical capacity, training based on the principles of an individual approach to future professional activity, optimization of the learning process, the priority of health-oriented orientation with the use of various forms and means of physical improvement. Therefore, it is expedient to introduce preventive and health programs, with the aim of positive changes in the indicators of motor activity of students of higher education in the conditions of distance learning.

We introduced into the educational process the Framingham method of timing the motor activity of a person during the day according to assess the amount of motor activity of student youth. The technique includes five levels: basic, sedentary, small, moderate, and intensive:

− the basic level includes: lying down rest, human sleep;
− to the sitting level: working at the computer and the table, listening to music, reading, watching TV programs, etc.;
− to a small level: classes at a higher education institution, movement on all types of transport, personal hygiene, walking;
− up to a moderate level: yard work, regular walking, repairs, housekeeping, ballroom dancing, etc.;
− up to an intensive level: running, strength sports, dancing, fast walking, long swimming, household work, etc.

The optimal index of motor activity according to the Framingham method corresponded to 42 points, and predicted motor activity:

− at the basic level – 8 hours;
− sitting – 8 hours;
− at the level of low physical activity – 2 hours;
− at the average level – 3 hours;
− at the level of high physical activity – 3 hours.

Mathematical statistics methods were used during the experimental research, which allowed for the calculation of basic values and the analysis of measurements. It should be noted that there was no difference in the amount of time girls and boys spent on different types of daily physical activity. Only physical exercises and passive recreation are an exception, as the duration was somewhat longer for young men.

Research work was carried out by institutions of higher education in Ukraine. 217 students (117 girls and 100 boys) took part in the study.

The classes were conducted by 6 teachers who acted as program experts at the same time.

To achieve the goal of the research, general scientific methods of scientific knowledge were used: theoretical – to outline the conceptual boundaries of the studied phenomenon and its semantic load – analysis of normative sources, psychological-pedagogical, philosophical, methodological literature, scientific work of scientists on the problem of physical education of students in conditions of distance learning and originality their work in today's conditions; analogy, classification, logical-systemic analysis, induction, deduction, generalization of practical and scientific-theoretical data – to determine the conditions for the formation of physical education of students in the conditions of distance learning; comparison of the received data – to find out dependencies and cause-and-effect relationships; empirical – surveys, questionnaires, observations, conversations – to check and clarify the effectiveness of the implementation of conditions; pedagogical experiment – to determine effective ways of physical education of students in the conditions of distance learning and to check the effectiveness of the proposed conditions; qualitative and quantitative analysis of research results using methods of mathematical statistics – to verify the results of the experiment.

At the basic level (sleep, lying down) of daily motor activity of higher education students, the level of motor activity in boys was 8.45 ± 0.29 h, and in girls – 8.74 ± 0.32 h.

Types of activities (reading, traveling in transport, eating, watching television, drawing, board, and computer games) that belong to the sedentary level of motor activity, and here students spend an average of 5.04 to 5.24 hours. The average duration of low-level (personal hygiene, walking, standing with little mobility, classes at a higher education institution, etc.) daily motor activity was the same in girls and boys and was 8.01 ± 0.47 hours. The analysis of the daily motor activity of higher education students and the timekeeping showed that classes in the institution of higher education occupy most of the small part of 6.5 ± 0.45 hours. This indicates the full content of the educational load and its large volume.

Average and high levels of motor activity were the lowest.

The average level of physical activity (morning gymnastics, walks, housework) was: 2 ± 0.16 hours for boys and 1.56 ± 0.18 hours for girls.

These levels were in percentage ratio:

− 35.2, 21.0, and 33.3% of the daily time budget for young men, respectively;
− respectively in girls – 36.4, 21.8 and 33.4% of the daily time budget.

About 90% of the daily physical activity of higher education students is at the sedentary level, basic level, and small level.

On average, students spend from 0.43 to 0.52 hours on a high level (intense mobile games, specially organized sports, physical exercises,

sports games) of motor activity, which is from 1.8 to 2.2% of daily motor activity. When assessing the motor activity of students of higher education, it was found that girls, compared to boys, have a shorter duration of medium level and high level of motor activity. However, in the distribution of the levels of motor activity of boys and girls, no significant difference was found (p > 0.05).

All students of higher education were divided according to the levels of motor activity depending on the obtained results (high, medium, low). Among the examined girls:

− 35.6% of respondents had a low level of physical activity;
− the average level of physical activity – 55.5% of respondents had;
− a high level of physical activity was found only in four girls – 8.9%.

Among young men:

− a low level of physical activity was found in 33.3% of respondents;
− average – in 50.0%;
− high – in seven people – 16.7%.

During the assessment of weekly motor activity in the middle of the weekly cycle, students observed a gradual increase in it, a slight decrease in weekly motor activity was observed on Saturday and Friday, and a slight increase on Sunday. The results of the conducted research indicate the need for the introduction of specially organized and independent physical exercises, walks in the fresh air, morning gymnastics, etc. into the daily routine of each person in the conditions of distance learning, because the formation of a healthy lifestyle of higher education students is based on the need to introduce health and preventive programs, which gives reason to assert in the conditions of distance learning about positive changes in the indicators of motor activity of higher education students, thanks to the use of physical education means – preservation of their health (Bielkova et al., 2021).

8. Recommendations for overcoming negative manifestations of distance learning

Modern methods of physical education for students in the conditions of distance learning should develop tolerance, operational quick reaction, physical endurance, adaptability,

critical, flexible, and creative thinking of the student of higher education (Pickard, 2018).

Therefore, innovative approaches to the physical education of students in the conditions of distance learning are an important element of the development of education, which are implemented in the trends of innovations in the educational process and the transformation of various initiatives, which together lead to the improvement of the quality of the field of education (Vakoliuk et al., 2021).

The need to improve the methods of physical education of students should overcome the sedentary lifestyle that provokes distance learning. To overcome the negative manifestations of distance learning, it is important to:

1) growth of students' motivational component. It is proposed to introduce additional elements of the competition to increase the interest of students, which would encourage them to perform tasks carefully;
2) use of a mixed education system;
3) using the potential of electronic testing, and monitoring knowledge to improve and consolidate theory and practice;
4) to provide theoretical information in the process of learning how to use the latest platforms (demonstration of presentations, educational-methodical literature available on the Internet, access to online videos, etc.) (Shavel et al., 2023).

Ways to reduce a sedentary lifestyle and maintain an active physical form:

1) active warm-ups and breaks during the day;
2) going for walks will help you stay active;
3) use of Internet resources;
4) meditation, deep inhalation, exhalation, and relaxation will help to keep calm;
5) spending working time whenever possible in the "standing" position, thereby reducing the amount of time spent in the "sitting" position;
6) drinking enough water, and proper nutrition.

Conclusions

The importance of the role of motor activity in human life has been proven.

The specially organized motor and physical activity of the student is distinguished, and the need and importance of general special and professional-applied physical training for a

person is shown. To a large extent, the training effect of classes is determined by the type and nature of the exercises performed, which are divided into the following groups using training: special-preparatory (specific); general training (non-specific); and main competition (special).

Movement qualities of different scales of influence are grouped to overcome adaptation and transfer the entire organism to a higher level of functioning.

Ways to create effective conditions for learning the rational technique of sports movements are shown.

The purpose, task, organization, and stages of the process of physical education in higher education institutions in distance form are disclosed. The most effective methods and techniques in the conditions of distance learning, which change the attitude of students toward their health care, are analyzed.

An experimental study of the analysis of the daily motor activity of students of higher education in the conditions of distance learning was carried out. The Framingham method of timing a person's motor activity during the day according to E. Zakharina was introduced into the educational process to assess the amount of motor activity of student youth. Recommendations for overcoming the negative manifestations of distance learning have been developed and the most significant ways of reducing a sedentary lifestyle and maintaining an active physical form have been highlighted.

Further research will be aimed at considering the most significant ways to reduce a person's sedentary lifestyle and support the student's active physical form.

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State and legal mechanisms in the formation of the ethnic identity of ukrainians (17th to Early 20th Century)

Державно-Правові Механізми у Формуванні Етнічної Ідентичності Українців (XVII–поч. XX ст.)

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Abstract

Unlike Eastern Ukraine, the territorial belonging of Western Ukrainian lands was determined by contractual agreements between European states. Reforms in Austria, and later in Austria-Hungary, as opposed to Russia, were based on the principles of Enlightenment ideology and values such as freedom, human rights, constitutionalism, and parliamentarism. In the medium-term perspective, this led to the Western Ukrainian community developing a sense of national consciousness, political organization, and the values of European civilization by the end of the 19th century. In this article, based on a comparative analysis of the historical experience of the Ukrainian community within two empires – the Russian and the Austro-Hungarian – the evolution of the process of

Анотація

На відміну від Східної України, територіальна належність західноукраїнських земель визначалася договірними угодами між європейськими державами. Реформи в Австрії, а згодом і в Австро-Угорщині, на відміну від Росії, базувалися на засадах ідеології Просвітництва та таких цінностях, як свобода, права людини, конституціоналізм і парламентаризм. У середньостроковій перспективі це призвело до того, що наприкінці XIX ст. у західноукраїнській спільноті сформувалися почуття національної свідомості, політичної організації та цінностей європейської цивілізації. У статті на основі порівняльного аналізу історичного досвіду української спільноти в межах двох імперій – Російської та Австро-Угорської –

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national identity is examined. The study was conducted using general methods of scientific knowledge, in particular, analysis and synthesis, induction and deduction, abstraction, specification, and formalization. During the study, the author analyzed the peculiarities of the state and legal mechanisms for forming the ethnic identity of Ukrainians in the seventeenth and early twentieth centuries. The prerequisites of Ukrainians' ethnic self-identification are considered. The author analyses the historical and cultural foundations of establishing the Ukrainian nation with the modern state-building process.

Keywords: identity, ethnicity, societal ideal, state-building, national consciousness.

розглядається еволюція процесу формування національної ідентичності. Дослідження проводилось з використанням загальних методів наукового пізнання, зокрема аналізу та синтезу, індукції та дедукції, абстрагування, конкретизації та формалізації. У ході дослідження автором проаналізовано особливості державно-правових механізмів формування етнічної ідентичності українців у XVII на початку XX ст. Розглянуто передумови етнічної самоідентифікації українців. Автор аналізує історико-культурні основи становлення української нації в умовах сучасного державотворчого процесу.

Ключові слова: ідентичність, етнічність, суспільний ідеал, державотворення, національна свідомість.

Introduction

The historical development of the Ukrainian lands that became part of the Russian Empire is characterized by their formation under the influence of diverse factors. During the period of the Liberation Struggle, this occurred on the basis of agreements. Colonization took place with migrants from Ukraine settling in the border territories of the Muscovite Tsardom. Furthermore, the expansion of the South Ukrainian lands resulted from conflicts with the Crimean Khanate. Throughout these processes, the government attempted to limit or prevent the realization of the Ukrainian population's own identity.

The beginning of the 20th century is marked by the struggle of the Ukrainian community for sovereignty and state independence. Such state-building experience holds exceptional significance for reevaluating and assessing the processes of state construction in the last 30 years. It was also characterized by the development of new theoretical and legal principles related to the construction of a modern Ukrainian state.

However, a necessary precondition for Ukraine's successful realization of its potential is the widespread integration into the global and primarily European community. This would necessitate its active cooperation with various international organizations in the matter of reforming the national legal system.

In this regard, it is worth noting that the contradictions related to the formation of the state and societal ideal were influenced by the fact that Ukrainian lands, divided between two states (the Russian Empire and Austria-Hungary), oriented themselves towards two different social and state-legal mechanisms, each with its own content.

The relevance of the topic is underscored by the fact that, at the beginning of the 20th century, Ukrainians were confronted with the necessity of fighting for the sovereignty of their own state – the Ukrainian People's Republic. From the aforementioned, the research objective is formulated, which consists of analyzing the process of the formation of national identity. The formulated objective has also determined the research subject, namely, the state-legal and self-governing institutions of those societies that included Ukrainian lands. The formulated research objective and subject have defined the temporal framework of the study - from the 17th century, a period of gradual limitation and elimination of Ukrainian statehood by Russia, to the annexation of Ukrainian lands by Austria in the late 19th century, coinciding with the implementation of bourgeois reforms in these states.

Therefore, the objective of this article is to clarify how, in the conditions of territorial dispersion and belonging to different state organisms, on the one hand, the loss of statehood attributes, and on the other hand, the process of consolidating the Ukrainian society took place.

The purpose of the study is to analyze the socio-political and state-legal factors that influenced the formation of the worldview of Ukrainian society.

Literature review

The issue of the peculiarities of the state and legal mechanisms of forming the ethnic identity of Ukrainians in the seventeenth-early twentieth centuries within the general process of ethno- and nation-building forms a scientific circle of interest for several contemporary scholars. Numerous publications on the subject have been made in scientific journals.

The theoretical aspects of the consolidation of the Ukrainian nation in different political, socio-economic and internal cultural conditions are reflected in the studies of several contemporary scholars (Salnikova et al., 2022; Terliuk, 2021). Among the array of research results, it is worth highlighting the work (Boyko, 2022), which fundamentally examines the influence of neighboring states on the formation and development of the Ukrainian legal tradition.

At the same time, some scholars (Andrusiak, 2008) draw attention to the problem of identifying the factors influencing the formation of the Ukrainian population's legal consciousness in the regional context. Several authors (Demyanko, 2001; Ramji-Nogales, 2022) study the mental characteristics of Ukrainians' political consciousness.

The near complete cessation (or biased approach based on politicized or ideologized conceptual foundations) of research in Soviet Ukraine on issues of Ukrainian identity led to the absence of fundamental works on the mentioned topic. However, it has been proven that the tradition of Ukrainian national self-awareness, through the prism of state-legal development, dates back to ancient times (Dontsov, 1951).

Despite certain divergences associated with the evolution process of any society, it has been established that each society goes through three stages: in the first stage, a small group of scholars collects historical documents and folklore, fearing that the uniqueness of the nation will be eradicated under the pressure of imperial culture; in the second cultural stage, an unexpected "resurgence" of the nation's language occurs, with its use in science and education; and in the third political stage, the development of nationally-oriented programs takes place, declaring the aspiration for self-governance. This general model aligns with the evolution of Ukrainian national consciousness (Subtelny, 1998).

As a result, we find the outcomes of prolonged theoretical work in the field of state and law, historical-ethnographic and folklore heritage, historical works, literary studies in Galicia, works in the field of economics and social studies. However, in the Soviet socio-political literature of Ukraine, this thematic content did not find continuation. Essentially, in the 1930s, at the turn of two centuries, the practice of a synthetic approach to researching issues of Ukrainian national consciousness, initiated in social studies, was disrupted.

Ukrainian researchers of the mid-19th to early 20th century, a time when attention to national history was growing, often equated the term "people" with another term – "nation". Discussions related to clarifying the meanings of the terms "nation" and "society" sometimes point to the multiplicity of characteristics, or they limit themselves to certain attributes that do not cover the full spectrum.

In Soviet academia, events of the investigated period were viewed in the context of preparing and conducting the socialist revolution. Therefore, anything that did not fit into the concept of Soviet state-building was perceived as reactionary, not aligned with social progress. Specifically, national-state building, which contradicted Bolshevik strategy based on class struggle theory, was classified as bourgeois-nationalist and anti-people.

Within the context of these approaches, a system-critical approach to scientific research gains significant importance.

Methodology

The manuscript's theoretical and methodological foundation consists of a combination of philosophical, general, and specific scientific research methods. The fundamental principles of scientific inquiry include objectivity, comprehensiveness, methodological pluralism, a concrete-historical approach, the unity of theory and practice, and the synergy of knowledge. The underlying methodological approach is the dialectical method, which allows for the examination of the proposed topic in its development, employing concepts such as "worldview," "contradictions," "culture," "transformation," "freedom," and more. The dialectical combination of retrospective and logical methods enables the tracing of the specifics of the historical development of states that included Ukrainian lands. By employing the

category of "planetary-historical," the essence of events within local-historical, socio-legal formations is analyzed.

Results and discussion

The formation of ethnic identity, as evidenced by global experience, becomes most active under the influence of objective and subjective factors related to the state-building process. Additionally, in the context of losing statehood, there arises a need both for analyzing the reasons behind such relations and the conditions that impact both the process of ethnic identity and the content of state doctrine.

It has been established that the territory of Ukraine evolved from three parts: the Dnieper region and Western Ukraine, as two ethnographic centers of Ukrainian identity, and a third area - a wide zone of later colonization encompassing the east and south of Ukraine. In Eastern Ukraine, as a specific region, we can distinguish the Sloboda Ukraine. The mass resettlement movement gained widespread popularity in these territories during the Liberation Struggle under the leadership of Bohdan Khmelnytsky. The Moscow government allocated significant territories where settlers established their own orders and structures.

With its administrative-territorial structure and state-legal status, the Sloboda Ukraine region stood out due to its distinctiveness. Here, five Sloboda Cossack regiments were formed, which constituted both military and administrative-territorial units. The regiments were led by colonels and regimental elders. The authority of the colonel was often passed down through inheritance within representatives of the same lineage (Panashenko, 1991: 283-314).

The population was accustomed to having "a representative of the same lineage at its head" (Doroshenko, 1992). However, despite granting the Cossacks full internal autonomy within the regimental organization, the Moscow government did not consolidate the Sloboda regiments under the authority of a single individual, as was the case in Hetmanate. In matters of national significance, the colonels were subordinate to the voivode, who was located in Belgorod. These actions were taken to prevent the emergence of a distinct territorial unity among the Cossacks.

Gradually, a policy of limiting local self-governance was implemented. Judicial and criminal cases in Slobozhanshchyna were removed from the jurisdiction of the colonels and transferred to the Belgorod Provincial Chancellery. The Cossacks retained the right to appeal the decisions of the regimental elders to the Belgorod voivode, with the actions of the latter subject to the Kursk Supreme Court. From that point on, the appointment and approval of colonels and sotniks of the Sloboda Cossack regiments were carried out by government officials appointed by the tsar. In Sumy, a governing body called the "Chancellery of the Commission for Establishing Sloboda Regiments" was established, led by Prince Shakhovskiy and two staff officers. The chancellery's task was to reorganize the regimental structure (Panashenko, 1991: 283-314).

The system of local administration also underwent changes. The regimental town halls, which were established concurrently with the formation of regiments, were renamed as chancelleries. These chancelleries were granted the rights and functions of the chancelleries of Russian provincial governorates. All matters handled by regimental chancelleries were resolved based on nationwide laws and imperial decrees. Legal proceedings within the regiments followed Russian legislation. (Liberation War and Reunification of Ukraine with Russia. The Beginning of Feudalism's Decline and the Emergence of Capitalist Relations (Serhiienko et al., 1979).

From the mid-18th century, there was an increasing effort by autocracy to standardize the governance system towards the expansion of imperial orders. The Sloboda-Ukrainian Province was abolished, and in its place, the Kharkiv Vicegerency was established. The division into provinces was abolished.

At the end of 1796, the Kharkiv Vicegerency was once again transformed into the Sloboda-Ukrainian Province. However, this did not significantly alter the overall governance system. Thus, by the beginning of the 19th century, all territorial-administrative distinctions between Slobozhanshchyna and other parts of the Russian Empire disappeared. The standardization of governance forms led to the elimination of the autonomous system's specific features. Ukrainians were deprived of the right to head local authorities, local self-governing bodies were abolished, and legal proceedings were conducted based on imperial laws.

The geographic division at its core is overlaid with factors and peculiarities of the legal status.

Finally, one must also consider the third "line of division" associated with the confessional factor: the contradiction between the Orthodox and Greek-Catholic traditions in Ukrainian Christianity (Nahorna, 1998)

In the works of scholars from the Ukrainian diaspora, it is noted that at the beginning of the First World War, the Ukrainian lands were distributed by state affiliation as follows: territories known in Ukrainian geographical terminology as Right-Bank (in relation to the Dnipro River) Ukraine (Russian official name "*Southwestern Krai*"); Steppe Ukraine (Russian name "*Novorossiya*"), and Slobozhanshchyna, as well as Ukrainian lands in the Don and Transcaucasus, were part of the Russian Empire. Galician-Bukovynian territories were within the framework of the Austrian state organism. Transcarpathian Ukraine (also known as "Hungarian Ukraine" or "Rus of Hungary") belonged to the Kingdom of Hungary (Yurchenko,1971).

The realization of the unity of the territory, through the prism of the administrative-territorial structure, of the central part of Ukrainian lands, begins in the years of the Mid-17th Century Liberation War.

After the Pereyaslav Council, the state and legal status of Ukrainian lands was determined by an agreement between Bohdan Khmelnytsky and the Moscow Tsar, known as the "*Articles of Bohdan Khmelnytsky*" or "*Articles of the Zaporizhian Host.*" Ukraine retained features of statehood such as autonomous self-governance led by a hetman, territorial-administrative and judicial bodies, and the right to diplomatic relations with other countries (except Poland and Turkey).

Subsequently, the state and legal status of Ukraine, through the actions of certain leadership groups, was characterized by limitations on rights and privileges. The so-called 'Moscow Articles' strengthened the positions of the Tsarist regime in Ukraine (taxation of the population, maintenance of Russian troops at the expense of the Ukrainian peasantry and bourgeoisie, etc.) (Honcharenko, 1997a).

The terms of the agreement between the Tsarist government and Hetman Demyan Mnogohrishny were supplemented with new provisions, which were categorically formulated to prohibit the hetman and his government from having diplomatic relations with other countries, reduce the size of the Cossack army to 30,000, and have Moscow voivodes with military garrisons in Ukrainian cities (Honcharenko, 1997b).

It is worth noting that while eliminating the features of Ukrainian statehood, the Tsarist government simultaneously tried to expand the rights and privileges of the Cossack leadership. The "*Kolomatsky Articles*" declared privileges for the Cossack leadership, the inviolability of property granted by royal decrees, and the bestowal of noble titles based on merit (Honcharenko, 1997c). Through such measures, the government sought to prevent the formation of independence-seeking tendencies within the Cossack elite.

By the end of the 17th century and the first half of the 18th century, Russia underwent a transition from an estate-representative monarchy to an absolutist monarchy. The absolutist monarchical authority aimed to eliminate the specific features of the administrative-territorial structure and the state-legal status possessed by the peripheral regions of the empire, such as the Don, Yaik, as well as the Baltic States and Ukraine. For this purpose, there were restrictions and the elimination of any signs of autonomous governance.

Autocracy unified the governance system towards the expansion of the overall imperial state mechanism. In Ukraine, the regimental administrative-territorial division was abolished, and the "*Regulation for the Governance of Governorates*" that applied to all of Russia came into effect. A nationwide system of administrative-territorial rule was introduced, involving the division into viceroys, led by viceroys (generals-governors), responsible for the "strict and complete collection from all his subordinates." The position of the general-governor in Right-Bank Ukraine held particular importance, exerting influence over local authorities. As a result, Russian autocracy not only managed to eliminate all remnants of Ukraine's autonomy but also established a rigid regime of governance over the territory, which, effectively, became an integral part of the empire. Consequently, Ukrainian society needed time to formulate the content of the doctrine of national consciousness and directions for socio-political development.

During the gradual expansion of the Russian Empire towards the Black Sea, specific features of the state-territorial structure of these lands were being formed. It is worth noting that the

decisive role in colonizing the southern territories belonged to settlers from Left-Bank and Right-Bank Ukraine.

A significant reorganization of the administrative-territorial structure of the southern lands began in 1764. By the imperial decree, New Serbia and the Novoslobodsk Cossack Regiment were transformed into the Novorossiysk Governorate. The governance of the governorate was carried out by two departments - military and civilian. Soon, the Ukrainian Line was incorporated into the Novorossiysk Governorate, and the cities of Kremenchuk and Vlasivka, as well as 13 hundreds of the Poltava Regiment, were annexed.

The administrative-territorial structure of the Novorossiysk Governorate was being shaped by the imperial government in line with the overall state-wide transformations.

Subsequently, with the annexation of Crimea, shifts occurred in the state-territorial structure of the region. The lands of the former Crimean Khanate saw the creation of the Taurida Province. Seeking to prevent the restoration of statehood for the peoples of Crimea, the government established six districts, the administration of which included Crimean feudal lords who received corresponding ranks and were equated in their rights to the Russian nobility (Panashenko, 1991: 283-314).

Formation of the governance mechanism in the southern lands, in the context of the overall imperial policy, engendered within the Ukrainian community, which actively participated in the colonization of these territories, a realization of a not-so-temporary unity, not only based on territorial commonality but also on shared societal ideals.

With the aim of standardizing the governance system and strengthening autocratic-police power locally, in the Ukrainian lands by the late 18th century, a pan-Russian administrative structure was extended. The territory of Ukraine was divided into governorates and counties.

The inclusion of Ukrainian territories into the Russian realm occurred against the backdrop of complex political and legal relations in Eastern Europe. On the other hand, the state-legal tradition of Russian autocracy was based on the idea of eliminating elements of Ukrainian statehood. Concurrently, the government established principles of territorial organization

that were meant to hinder the revival of Ukrainian national consciousness.

It is not coincidental that Russian legislation emphasizes the pivotal role of the governor, a key figure in the middle tier of the bureaucratic state apparatus. The governor was responsible for implementing governmental policies. Notably, in pan-Russian legislative acts, there were attempts to distinguish the functions of civilian and military governors, delineating their responsibilities from those of vice-governors, gubernatorial administration, prosecutor, treasury and judicial chambers, and the head of the nobility. At the same time, the recurrent reference to the issue of "bounds of authority" underscores the absence of clearly defined spheres and limits of their competence in practical life. The question of the governor's position within the state administrative apparatus was also raised. The establishment of the Ministry of Internal Affairs sought to subordinate the governor to its structure, whereas according to previous laws, the governor was answerable solely to the emperor. Conversely, the governor received dozens of directives regarding his responsibility for censorship, fire safety in factories and plants, oversight of nobility elections, activities of other "presence" entities, conscription, passport regulations, and more (Shandra, 1998).

As a result of the uprising on the territory of Poland, the imperial government established the Kyiv General-Governorship, which included the Kyiv, Volyn, and Podillya governorates.

Right after suppressing the uprising, the Russian government initiated an intensified offensive against all remaining vestiges of administrative-territorial autonomy in Right-Bank Ukraine. In doing so, it aimed to eradicate the consequences of the national liberation movements of the Polish and Ukrainian peoples. On October 30, 1831, a law came into effect aimed at eliminating the specific features of the administrative structure of the Western provinces and establishing pan-imperial regulations. According to the conclusion of the State Council, approved by the emperor, the Russian language was introduced not only into the judicial system of the Kyiv governorate but also in the Podillya and Volyn governorates. By a specific, Senate-announced decree, the governor-general was appointed responsible for the resettlement of the former nobility to the Caucasus (Shandra, 1998).

The abolition of serfdom brought about a certain transformation of social relations. In rural areas,

local self-governing bodies began to form. As a result, the resolution of significant matters related to village life was entrusted to the village council. For addressing current affairs, the village council selected a village elder. Several villages together formed a "*volost*" with a "*volost elder*" at its head.

The 1864 Zemstvo Reform envisaged the creation of self-governing bodies at the intermediate level: gubernia zemstvo assemblies and their executive bodies – gubernia zemstvo administrations, as well as county zemstvo assemblies and county zemstvo administrations. Elections to the zemstvo institutions were based on property qualification and estate affiliation. Their authority was centered around addressing matters of education, healthcare, and road construction. However, even in this limited form, zemstvos expressed their opposition to absolutism. Fearing that zemstvos might evolve into national-political centers, the imperial government introduced them in Left-Bank Ukraine and, only in 1911, in Right-Bank Ukraine (Dnistrovsky, 1992).

A more radical reform was the judicial reform, which provided free access to legal protection for all residents and ensured the election, independence, and tenure of judges. The institution of lay jurors was introduced, district courts of justice and courts of peace with clearly defined functions were established. However, estate courts persisted, which, although dealing with minor cases, remained vestiges of the old system.

During the post-reform period, the so-called "peasant policy" was primarily implemented in villages and volosts (administrative units). Despite the social and legal limitations and the structural imperfections of the self-governing bodies, the attention of the peasants was directed towards the volost. After the abolition of serfdom and the implementation of other reforms in the 19th century, the volost administrations transformed into a source from which the Ukrainian rural population drew all the necessary laws, acts, regulations, instructions, explanations, and excerpts needed for public and family life.

However, at the same time, the agricultural population exhibited apathy towards state affairs, particularly towards local governance bodies. Since performing administrative functions was inadequately compensated, peasants regarded elective positions as a burdensome obligation.

The separation of rural workers from their own farms led to tangible losses. The unique peasant lifestyle that had developed over centuries fostered distrust of government institutions: the duties performed by deacons, socy, starostas, elders, and village heads were often perceived by peasants as a service that brought no respect or profit (Prysiashniuk, 1999: 23-32).

The attitude of Ukrainian peasants towards self-governing bodies had another aspect. Often, rural and volost officials were chosen from among "quiet," weak-spirited villagers who turned a blind eye to violations of laws, government decrees, and local authorities' orders. Village and volost assemblies were seen by "active" participants in the communities not primarily as a form of state and legal life, but as an opportunity for yet another interaction, a kind of collective leisure (Prysiashniuk, 1999: 23-32).

The process of involving Ukrainian peasants in the activities of local governance occurred sporadically and was not controlled by the state. The participation of farmers in representative assemblies, much like in the medieval era, remained primarily formal. Meanwhile, those in positions of actual power, often hailing from a farming background, quickly isolated themselves and socially distanced themselves from their fellow villagers. However, while maintaining their agricultural mentality and worldview, they aimed to derive benefits from it within the bounds of traditional ways of life (Prysiashniuk, 1999: 23-32).

In a primitive understanding of the essence and specificity of state power and their own rights, Ukrainian peasants behaved passively at assemblies. Reluctantly attending such gatherings, except for a few who considered themselves community leaders, they knew in advance that no major issues would be resolved there. During these gatherings, peasants were mostly present as mere attendees. Often, they had no opportunity to participate in the discussion of specific matters. There were instances where attendees were not even aware of the topics under consideration.

The average Ukrainian peasant simplistically accepted, misconstrued, and interpreted rights, legality, and the communal nature of personal and societal interests, rendering them incapable of providing anything constructive in the face of clannishness and bureaucratic power, including at the local level. The legal consciousness of Ukrainian peasants during the post-reform decades was characterized by the preservation of

patriarchal norms of customary law: money borrowed was often given "on trust," without formal debt documents, and only 20% of claims in volost courts were substantiated by documents.

The development of power relations in Ukraine was based on ideals reflecting the worldview (mentality) characteristics of Ukrainian society and, primarily, the peasantry, which constituted nearly 9/10 of the population.

In a political and legal understanding, mentality reflects a certain level of individual social consciousness, as well as the associated spectrum of life positions and behavior models that claim independence from officially defined ideological orientations and political-legal orientations. It's a unique political-psychological thesaurus shared among members of a socio-political group or organization, enabling them to perceive and evaluate the existing political-legal reality, and act within it according to established societal norms and behavior patterns while understanding and perceiving each other adequately (Demyanko, 2001: 93-100).

The majority of Ukrainian researchers, when analyzing the Ukrainian character, have considered the decisive influence of geographical and geopolitical factors, economic life, and other factors.

Methodological approaches associated with the study of issues related to legal culture, especially the meanings of "law" and "legislation," can be found in the work "*The Spirit of the Laws*" by Montesquieu. In this work, Montesquieu attempts to determine the content of laws based on certain natural factors, primarily geographical ones. State-legal relations are influenced by factors such as climate, soil, terrain, customs, traditions, religious beliefs, population size, material well-being, and the prevailing "order of things" as a whole (Tymoshenko, 1998: 767-768). Montesquieu emphasizes that while certain regularities exist, legislators should also consider the mental characteristics of a specific ethnic group.

In addition to this, the influence of the geopolitical factor should also be considered. In his interpretation of Ukraine's position between the East and the West, Ivan Lysiak-Rudnytsky under the term "West" understood Europe as a community of European nations united by similar characteristics. He emphasized the Western, European nature of Ukraine while acknowledging the existence of strong non-

Western elements within the Ukrainian national identity (Lysiak-Rudnytsky, 1994: 1-9.)

As a result, the geopolitical factor contributed to certain character traits of Ukrainians, such as an extraordinary desire for freedom, national sovereignty, and natural democratic tendencies. These traits have led to the formation of various local forms of self-realization at local-societal and individual levels, including tendencies towards anarchism. According to Mykola Kostomarov, who characterized Ukraine as a social community that from ancient times didn't want to recognize "neither king nor lord." Dmytro Yavornytsky, a renowned researcher of Cossack history, described the Zaporozhian Cossack as a guardian of the state and societal ideals of the Ukrainian people, a social phenomenon that acted as a "living herald of freedom" and a "living protest against violence and slavery" (Demyanko, 2001: 93-100).

In conclusion, at the beginning of the 20th century, the idea emerged within the sphere of Ukraine's socio-political thought that only the Ukrainian peasantry could be the creator of the national-state ideal. This perspective was motivated by the belief that only the Ukrainian peasantry, unlike the russified proletariat, preserved spiritual traditions. The majority of left-leaning politicians in both parts of Ukraine adhered to this viewpoint. The relevance of this issue is driven by distinctive retrospective parallels that Ukrainian society has experienced over the last 150-200 years. In a generalized form, these parallels reflect the following directions of social transformation: from a police state to democracy, from a monarchical (totalitarian) political regime to a liberal (liberal-democratic) one; from a natural-consumer (planned-administrative) economic system to a market-oriented (social-market) one (Boyko, 2022).

For the Ukrainian ethnos, a crucial aspect in the formation of their mentality was the pronounced autochthony and the development of a way of life in accordance with their occupations. Indeed, the mentality of the Ukrainian peasantry has its roots in the agrarian culture of our ancestors. Ukrainians are an autochthonous ethnic group that has inhabited the same lands for millennia, and their primary occupation has been agriculture. The connection between Ukrainians and the land was strong and multifaceted. Ukrainian peasants loved the land, treating it as sacred. Agricultural practices were accompanied by numerous warnings and rituals, largely tied to

natural cycles and the agricultural calendar (Apanovych, 2000: 3-5).

The Ukrainian peasant developed and solidified a sense of being a master, relying on their own abilities and showing personal initiative. The environment and work on the land shaped their understanding of good and evil, as well as their internal moral principles and norms of behavior. For the Ukrainian agricultural worker, achieving a good result in land cultivation was tied to morality, practical benefit, skillfulness, and aesthetic satisfaction. However, under one essential condition: the land on which they labored, nurtured, and cared for should belong to them. From ancient times, Ukrainians had a traditional inclination toward individual land ownership and private property. According to divine and human justice, the material wealth earned through hard work should not be wasted or appropriated by others. It should belong to the one who acquired it - the owner, as well as those for whom they live, work, and save. This includes those who inherit the owner's property - their family, the most crucial unit of human society, which ensures the connection between generations and the continuity of the lineage. This family is the carrier of spiritual values.

However, the individualistic principles within the family and community relations of Ukrainian peasants, as a rule, did not hinder the organization of such important and necessary collective labor. This is evident, in particular, through joint field work, communal labor efforts ("*tolokas*"), long-distance trade caravans ("*chumaks*"), carting, village-based collective work groups ("*artils*"), and cooperatives. Cooperation was almost always voluntary.

In the latter half of the 19th to the early 20th century, due to the aforementioned traits of their mentality, Ukrainian peasants could not come to terms with the notion that industry and trade were superseding agriculture in the societal economy. This was coupled with another deeply ingrained stereotype in their socio-cultural consciousness - the prioritization of physical labor over intellectual pursuits. It has been demonstrated that it is in this context that one must seek one of the reasons for the peasants' aversion and contempt towards the "masters," a term they typically applied to landowners, entrepreneurs, merchants, officials, and the intelligentsia (Prysiashniuk, 1999: 23-32).

The distinctiveness of Ukrainian peasants, coupled with socio-legal limitations within administrative and judicial domains, and the imperfect state of rural democracy, resulted in their secondary role within society. One of the pivotal questions in this posed problem is to what extent the peasantry was prepared for a "free" existence (Marandici, 2020). Introduced through reforms into semi-market relations, the peasantry had to rapidly adapt to forms of state life previously unfamiliar to them. The liberalization of socio-political life in rural areas created certain opportunities for improving the social status of farmers through pursuing career ambitions. However, the reality was that the majority of legal cases involving landowners and clergy resulted in unfavorable outcomes for peasants. Due to their low socio-legal status, lack of resources, bureaucracy in the judicial system, and more significantly, the fear harbored by the farmers who believed that winning a legal case against the "masters" was a futile endeavor, cases initiated by peasants were rarely heard.

In our view, the absence of support for reforms from the Ukrainian peasantry was influenced by the fact that "property rights and the enforcement of contracts through legal institutions became the foundation for economic growth in Great Britain, the Netherlands, Germany, the USA, and other countries that protected these rights. For this reason, liberalism is associated with economic growth and modernization. Historically, the most favorable class for liberalism was the class of owners, not only landowners, but also numerous business owners and entrepreneurs from the middle class, whom Karl Marx referred to as the bourgeoisie" (Fukuyama, 2020).

As a result of the First Partition of Poland in 1772 and the Third Partition of Poland in 1795, Galicia, and according to the Austro-Turkish Convention of 1775 concluded in Constantinople, Bukovina, became part of the Austrian Empire. Galicia, along with certain Polish territories, was designated as a separate region known as the "Kingdom of Galicia and Lodomeria," with its center in Lviv. This region was administratively divided into 19 districts, of which 12 were situated within the territory of Eastern Galicia, where the Ukrainian population resided. In 1786, Bukovina, with its center in Chernivtsi, was annexed to Galicia as a separate district.

Emperors Maria Theresa and her son Joseph II implemented reforms based on the understanding that the strength of the state depended on the level of personal freedoms and the spread of education among the population.

The state and legal development of Ukrainian territories were influenced not only by the constitutional structure of Austria but also by the impact of Western European Enlightenment ideology, which encompassed elements of democracy, humanism, and legality. Despite substantial resistance from administrative and territorial authorities, the Polish elite, the state and legal reforms in Austria nurtured the concept of personal autonomy across all aspects of life and unified the Ukrainian community towards a common national goal (Matskevych, 2007: 134-137).

It is within the circles of Ukrainian scholars that the notion emerged that the Ukrainian population of Galicia, in contrast to the Right-Bank Ukraine, fostered a societal ideal aimed at achieving Ukrainian statehood. Among the array of factors that shaped the process of nation-building in Galicia, researchers emphasize the civilization affiliation with the Western European realm. This manifested in legislation and the populace's ability to employ the state and legal mechanisms to address the needs of Ukrainian state development (Andrusiak, 2008: 13-16).

The pivotal role in the formation of Austria's state and legal system was played by the revolution of 1848-1849. Under the influence of these revolutionary events, the country's state and legal development evolved towards constitutionalism. According to the provisions of the so-called "opened" (bestowed by the emperor) Constitution, the authority of the emperor was partially curtailed, and limited democratic freedoms were proclaimed (Salnikova et al., 2022). From the perspective of the Ukrainian community's priorities, the reforms carried an ambivalent character. The separation of Bukovina from Galicia did not facilitate the process of Ukrainian consolidation. Concurrently, Bukovina was granted the status of a separate autonomous region with the title of "*duchy*." The rights of the newly established duchy were defined by the imperial patent (decree) of September 29, 1850, which encompassed the Constitution of the region and the Electoral Law for local representative authorities. Of particular note is the third paragraph of the Constitution, which asserts that all nations residing within the region are equal, and each nation possesses an inalienable right to safeguard and develop its nationality and language (Dobrzhanskyi, 1999).

By gaining the right to participate in representative governmental bodies, Ukrainian deputies not only acquired experience in statecraft but also utilized the parliamentary platform to address tasks of national and state development. This was supported by specific legal provisions. The Constitution stipulated that the Duchy of Bukovina was an integral part of the empire, and its connection with other lands was established based on the Constitution through representation in the Reichsrat (parliament). From the perspective of the state and legal status of the region, a positive aspect was the establishment of governing bodies. The convening of the regional sejm, endowed with certain legislative powers, and the organization of the regional department as a permanent executive structure were foreseen (Usenko & Kirsenko, 2008).

Additionally, constitutional law in Galicia, while granting certain privileges to large landowners, restricted the possibility of Ukrainian representatives accessing legislative bodies and enabled the bureaucratic apparatus to exert a wide influence over all spheres of life within the Ukrainian community of Galicia (Matsekevych, 1999: 91-92).

An important step in terms of further safeguarding Ukrainian national priorities was the issuance by Emperor Franz Joseph of the "Regional Statute and Seim Electoral Ordinance for the Kingdom of Galicia and Lodomeria with the Grand Duchy of Krakow," which, with minor modifications, remained in effect until the First World War.

According to the provisions of the "Statute," the supreme authority was declared to be the regional seim, with the executive branch being the regional division. The seim was elected for a term of 6 years. It possessed the right to establish regional laws, particularly in matters of economy and finance, public affairs, church issues, education, and more (Terliuk, 2021). The competencies of the regional seim extended to matters concerning the protection of forests and fields, water usage, establishment of public management bodies, regional transportation routes, establishment of public and professional schools, decisions about the language of instruction in educational institutions, formation of local budget revenues and expenditures, and so forth.

Within the framework of the existing legislation, the seim could discuss nationwide laws and communicate with central government authorities, expressing its opinions on all matters brought before it by the government. For the needs of the region, the seim was allowed to

establish additional local taxes up to 10% of the main state tax. The decisions of the seim only took effect after being approved by the emperor. The work of the seim was led by the regional marshal and his deputy, who were appointed by the emperor from among the deputies, based on the recommendation of the region's president (Dobrzhanskyi, 1999).

During the period between seim sessions, the full power was concentrated in the hands of the regional division. The division was responsible for day-to-day management of the region's economy and institutions, represented the region in all legal matters, prepared necessary documents for seim sessions, and reported on its activities to the seim.

The revolution of 1848 and subsequent defeats in wars with France, Piedmont, and Prussia led to the further evolution of the Austrian state. In 1867, the multinational Austrian state transformed into the dualistic constitutional Austro-Hungarian Monarchy. State-legal relations were built on the principles of centralization in the sphere of defense, financial system, foreign and customs policy. Simultaneously, in order to shape nationwide priorities, representative structures known as "Delegations" were established, composed of 60 deputies from the Austrian and Hungarian parliaments. This arrangement for forming nationwide policies allowed representatives of national minorities, including the Ukrainian minority, to advocate for their own socio-political priorities.

An important feature of the laws of the 1860s was the wide proclamation of democratic values. The texts declared the equality of all citizens of the empire before the law, equal opportunities in occupying state positions, freedom of movement, inviolability of private property, confidentiality of correspondence, the right to submit petitions and requests, freedom of speech and press. Article 19 of the Constitution held exceptional significance, where it was stated:

All peoples of the state are equal and each people has the unassailable right to preserve and develop its nationality and language. The state recognizes the equality of all regional languages in schools, state institutions, and public life. In regions where several peoples reside, educational institutions must be organized in such a way that without using force to study another regional language, each of these peoples has the necessary

opportunities for education in their native language (Dobrzhanskyi, 1999).

The evolution of state-legal institutions in the Austro-Hungarian Empire occurred within the broader context of European democracy. The peoples of the empire, including the Ukrainian population, gained the opportunity to advocate for their own state-legal ideals based on proclaimed political and legal priorities and utilizing legal means.

The realization of Ukrainian national priorities was also tied to the improvement of the judicial system. The Law on Judicial Authority stipulated that the organization and jurisdiction of courts should be defined by separate laws. All judges were declared independent. Judicial proceedings, both in civil and criminal cases, were conducted openly. The submission of complaints in criminal cases was envisaged. The right to amnesty was granted to the emperor. He also had the authority to mitigate punishments imposed by the court (Dobrzhanskyi, 1999).

The judicial system was characterized by the separation of judicial and administrative functions at all stages of the legal process, as well as the establishment of a jury court. The Criminal Procedure Code expanded the jurisdiction of jury courts and included 22 types of serious crimes within their jurisdiction, which carried a minimum prison sentence of five years, as well as nine crimes and two politically motivated offenses (Kulchytskyi & Boyko, 2001: 138).

The state-legal system of Austria, and later the Austro-Hungarian Empire, evolved over a long historical period. The highest authority in the country experienced several profound crises, but each time managed to enact reforms that facilitated the modernization of societal relations.

Conclusions

It has been established that the formation and realization of these ideals largely depend on the awareness of one's own ethnic identity, influenced by the characteristics of the state-territorial structure.

At the beginning of the 20th century, the territory of Ukraine was part of two empires: the Russian and the Austro-Hungarian. These circumstances greatly influenced the process of shaping socio-political ideals, the content of which was determined by the peculiarities of the formation

of territories inhabited by Ukrainians. The state-legal development of the Left-Bank Ukraine (*Hetmanate*), associated with the events of the Liberation War, established a tradition of Cossack regimental structure with distinct features of sole authority vested in the hetman. Throughout the 18th century, the Cossack leadership, led by the hetman, was unable to preserve autonomous governance due to the imperial policies of the Russian autocracy.

In the territory of Sloboda Ukraine, at the level of regimental administration, a tradition of hereditary power was formed. A characteristic feature of the establishment of autocratic rule in the southern regions of the empire was the absence of a tradition of state-building. The formation of governing bodies in Novorossiya occurred within the framework of overall imperial reforms (Wilson, 2024).

Starting from the late 18th century, the process of forming imperial governing structures in Ukraine began. The state-territorial system underwent changes. These government measures, alongside the goal of unifying the governance system of the empire's territories, aimed to eliminate the traditions of Cossack statehood.

Within the *guberniya* (province) territory, the monarch's representative – the governor – concentrated both police and administrative authority in their hands. In addition to general functions, it was the governor's duty to suppress even the slightest manifestations of national-liberation movements (Ramji-Nogales, 2022: 152). In cases where such movements took on the form of armed struggle (like the Polish uprising of 1830), the government introduced the position of a general-governor, endowed with unrestricted police and administrative powers over the territories of several guberniyas.

The abolition of serfdom brought about changes in the system of state authority in the Russian Empire. The judicial system and local self-governing bodies needed further refinement. The era of liberalism in the late 19th to early 20th century presented ample opportunities for socio-political activities. However, the reforms undertaken did not find support among the majority of Ukrainians, especially the peasantry. Political and legal nihilism among Ukrainians stemmed from the absence of mechanisms linking central authority and society. Moreover, autocracy viewed any form of pluralism with distrust, leading to harsh repressive policies against national movements. This fueled Ukrainian skepticism towards democratic reforms at the local level, which, while conceptually democratic, were often unviable. Contradictions also arose from the merging of peasants' socio-economic aspirations with the national ideals of the intelligentsia. Consequently, there arose a need for scholarly works that analyzed the process of forming legal consciousness in Ukrainian and Russian societies, as well as the establishment and programmatic demands of Russian and Ukrainian political parties.

Despite the contradictions in socio-political development, the annexation of Galicia and Bukovina to the Austro-Hungarian Empire had certain positive consequences, unlike the perspectives formulated in Soviet historical approaches. In the 1860s, a constitutional order was established in Austria-Hungary, and broad democratic freedoms were proclaimed. According to the Constitution, the Ukrainian community gained the right to autonomous existence and development, as well as participation in both national and local parliamentary elections. Over the next decades, political, economic, and socio-cultural life became more active, and the Ukrainian population came to realize the significance and unity of their ethnic territory.

The process of national awareness was influenced not only by the impact of European philosophical and legal doctrines within the territories of states that encompassed Ukrainian lands, but also by the practical realization of these doctrines through the lens of the socio-political practices of the Ukrainian community. Western Ukrainians were afforded the opportunity to express and defend their national and socio-economic interests within the parliament. Thus, the Ukrainian community of the Austro-Hungarian Empire, unlike that of the Russian Empire, gained the chance to participate in political, organizational, and cultural activities. This underscores the need for attention to the issue related to the activities of political parties in Western Ukraine and their representatives in parliament.

However, at the same time, the contradictions in the position of the Ukrainian community were driven by economic and social backwardness, as well as a low level of legal culture. To this, one should add the growing influence of Poles in local self-governing bodies. These circumstances prevented the full utilization of the rights and freedoms guaranteed by the Austrian Constitution and prevailing legislation.

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Metadisciplinarity at the intersection of modern philosophical and philological practices

Метадисциплінарність на перетині сучасних філософських і філологічних практик

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Abstract

The article explores the relationship between inter-, trans-, and polydisciplinarity in contemporary humanities. It highlights philosophy's role in fostering critical thinking and methodological reflection. The phenomenon of intersubjectivity/interculturality is discussed in today's network society, emphasizing the ongoing exchange between individual consciousness and interpersonal perception within metadisciplinary philosophical studies. The article illustrates the practical application of metadisciplinarity through a PhD program at Kyiv National Linguistics University, advocating for the reintroduction of philosophy into modern education. It proposes an interdisciplinary segment, "Philosophy of Science and Methodology of Humanitarian Knowledge," integrating philological and professional teaching with philosophy to cultivate reflective and critical skills. The

Анотація

У статті досліджено кореляцію термінів між-, транс-, полідисциплінарність та їх рецепцію у мультимодальних течіях сучасних гуманітарних наук. Акцентується роль філософії в епістемологічному і культурному вимірах як осердя формування критично мислячої особистості та генератора розвитку культури мислення з інтенцією до методологічної рефлексії. Розкрито практичний горизонт метадисциплінарності на прикладі підготовки докторів філософії в Київському національному лінгвістичному університеті. Зокрема, наголошується необхідність адекватної реінтеграції філософії у сучасну систему освіти. Акцентується, що у результаті поєднання філософської складової, зокрема у ракурсі набуття навичок рефлексивно-критичного ставлення до дійсності, з філологічною і професійно-викладацькою компонентами створюється

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program aims to equip postgraduate students with knowledge of logical, methodological, and epistemological shifts, applicable in teaching. Ultimately, it asserts that combining specific scientific knowledge with philosophical principles in education shapes a flexible and deep conceptual framework, enhancing modern scientific and philosophical discourse. This multimodal approach to metadisciplinary philosophy fosters innovative paradigmatic trends.

Keywords: metadisciplinarity, science, polylogue, philology, philosophy, practice.

інноваційний міждисциплінарний сегмент 'Філософія науки і методологія гуманітарного пізнання'. Доведено, що вказана навчальна дисципліна має вектор на формування у аспірантів системи сучасних знань про логіко-методологічні й епістемологічні зсуви у новітніх наукових парадигмах та засоби їх концептуалізації в актуальних напрямах континентальної і аналітичної філософії та реалізації набутих знань у викладацькій практиці. Висновується, що поєднання в сучасній системі освіти конкретно-наукових знань (приміром логіки і філології) та потужного категорійного апарату філософії впливає на формування гнучкої і водночас глибинної понятійної і аксіологічної 'сітки', яка може бути ефективно впроваджена в сучасних наукових течіях і філософських полілогах. Тож репрезентована в статті мультимодальна стратегія метадисциплінарних вимірів сучасної філософії сприяє і надалі сприятиме появі інноваційних парадигмальних трендів.

Ключові слова: метадисциплінарність, наука, полілог, філологія, філософія, практика.

Introduction

Contemporary cultural and social space as a whole can be delineated through the optics of responsive communication, because the existential dialogue 'I/Other', as well as the cultural dyad 'Self/Interworld', does not leave the interest of philosophers, culture studies experts, axiologists. At somepoint, axiological and cultural turns in philosophy and humanitarian studies led to the rediscovery at the level of meaning of such concepts as ethos, self, topos, dialogue, polylogue and their exemplification in intercultural communication and various scientific discourses.It is also no coincidence that the reactualization of the intersubjectivity/interculturality phenomena in the non-linear dimensions of the network society, which had a significant impact on the formation of new trends in philosophizing: indeed, the interdisciplinary vectors of philosophy at the end of the 20th century are indicative, and the beginning of the 21st century proved to be a landmark in the practices of expanding the boundaries of the very concept of interdisciplinarity.

In today's matrix of ideologies, more acute than ever is the problem of both the adequacy of the criteria of 'interpretive consciousness' and the 'objectivity' of the constitution of our reality – media, social, cultural, ethical, and most importantly – the problem of that 'unreduced consciousness' that is able to contain hybrid palimpsests of reality together with visible and 'captured' interpretations. This problem especially needs to be reflected upon in connection with the establishment of a non-linear paradigm in the theoretical philosophy of the late 20th century, with exits into the horizons of multidisciplinary 'pastiche', thus affecting the understanding of the phenomena of multiculturalism and polydiscursiveness.

At the moment, we refer to the correlation of the terms inter-, trans-, polydisciplinarity and their reception in the multimodal currents of contemporary humanities, which, in turn, are involved in the polydiscursive nature of science and philosophy of the 21st century.

The purpose of the article is to analyze the new optics of metadisciplinarity of contemporaryphilosophy in the horizon of intercultural communication and interdisciplinary educational practices of higher education.The tasks of this research are, firstly, to study today's trends of interdisciplinarity of philosophy and philology in the aspect of intercultural communication; secondly, to substantiate the correlation between groups of concepts that are fundamental in the context of

the work, such as intersubjectivity/interculturality, common world/interworld/interdisciplinary; thirdly, to demonstratevarious vectors of philosophy at the level of polydisciplinarity in the context of teaching philosophical and philological disciplines in higher education; and, fourthly, to emphasize the multimodal strategy of polydisciplinary dimensions of philosophy and philology and their complementation with metadiscursiveness of the humanities as a whole.

Theoretical framework

We will conduct a review of the literature on the research topic in order to clearly demonstrate the genesis and current state of the concept of 'metadisciplinarity'.

Back in the 70s of the 20th century, J. Piage, one of the founders of the post-non-classical trend in scientific research, in his work 'The Epistemology of Interdisciplinary Relationships. Interdisciplinarity'proposed to discuss 'transdisciplinarity in science' as a higher stage of research, which appears as a logical extensionfor the methodology of interdisciplinarity. He was convinced that 'transdisciplinarity should be viewed as a new branch of knowledge, different from multidisciplinarity and interdisciplinarity' (Piage, 1972, p. 129). Similarly, E. Jantsch in his work 'Towards Interdisciplinarity and Transdisciplinarity in Education and Innovation. Interdisciplinarity' not only supported, but also developed the ideas of J. Piage. He suggested that transdisciplinarity as a 'new realm without sharp boundaries among disciplines', as a new branch of knowledge must necessarily be a super- or hyper-discipline (Jantsch, 1972, p. 101). The participants of the Transdisciplinarity Symposium, held under the auspices of UNESCO in Paris in May 1998, have already determined their fundamentalstandpoint. This stand pointhad a direct impact on the recommendations of the 'World Declaration on Higher Education for the XXI Century: Approaches and Practical Measures', adopted in October of the same year. Thus, 'the way to attain an integrated concept and practice of knowledge, and consequently to address many crucial issues of our age through a transdisciplinary approach, does not lie in applying ready-made, 'mechanical' procedures based on automatic, stereotyped formulas and standardized recipes; but rather, in establishing various complex, integrative processes to be mindfully and cautiously implemented in the light of manifold

criteria' (Unesco, 1998, p. 13). Multidisciplinary and interdisciplinary approaches are not means of effective protection against the fragmentation of knowledge, that continues tothisday, because by simply juxtaposing or combining disciplinary approaches, they do not reach the depth of 'integration', the fundamental unity that underlies all forms of knowledge. Their conceptual and methodological tools must be reconsidered. According to the modern Ukrainian researcher O. Kushnir, 'from the very beginning, transdisciplinarity was defined as a 'meta-methodology', which is why the object of the transdisciplinary approach, expressed by different methods in different disciplines, seeks to 'transform' and 'surpass' them' (Kushnir, 2017, p. 161).

We suggest taking a transdisciplinary look at the modern humanitarian and philosophical studies, exemplifiedbythe analysis of several scientific paperspublishedover the past five years. In particular, in A. Yermolenko's article 'Interiorization of intersubjectivity in the 'I'-concept and co-responsibility in transcendental pragmatics: Modern philosophy of mind: prospects for development' we can observe a combination of phenomenology, hermeneutics and analytical philosophy (Yermolenko, 2021); meanwhile, in A. Vakhtel'sstudy 'Modern Ukrainian phenomenological terminology and approaches to the translation of Edmund Husserl's Cartesian meditations' the horizons of ontology and philology merge through the analysis of the specific problems in the modern translation of philosophical terminology (Vakhtel, 2019). The conference paper 'Hyperreality and/as'real virtuality' in the horizon of transdisciplinarity of modern philosophy' presented by L. Komisar demonstrates the optics for combining virtual studies, axiology and philosophy of culture (Komisar, 2022), while the article 'Ecologism as a Modern Strategy of Human Survival (Regional and Global Dimensions)'by E. Levcheniuk and F. Vlasenko et al. proposes to combine ecology and ethics in the practical dimension of finding solution for the global environmental crisis (Levcheniuk & Vlasenko, 2020). In his work 'Art + Science Now: How scientific research and technological innovation are becoming key to 21st-century aesthetics' S. Wilson offers a brilliant compilation of aestheticized art and strict scientific methods (Wilson, 2010), and L. Shashkova expertly applies this approach in the concept of 'experimental art'through the prism of the article 'Transdisciplinary perspectives of experimental projects in

scientific art' (Shashkova, 2022). O. Marina's research 'Modern English-language poetic discourse: multimodal forma', where the author proposes to apply multimodality to the analysis of poetic discourse, also arouses interest (Marina, 2019). Of course, the works and authors mentionedabovecannot fully present the transdisciplinary dimension of modern humanitarian studies, but, in our opinion, the given examples clearly demonstrate the presence of a metadisciplinary philosophical component in each of the featured works.

At the same time, in our opinion, the problem of correlation amongthe bordering semantic terms, such as inter-, trans-, polydisciplinarity, remains open along with their relationship to the concept of 'metadisciplinarity', which can be considered as the general trendfrom our point of view.

Regarding the correlation among the concepts of 'interdisciplinarity', 'transdisciplinarity', 'polydisciplinarity', in our opinion, the article by D. Puchkova 'Postnonclassical type of rationality: poly-, inter-, trans- and metadisciplinarity', is illustrative, in particular, according to the author, the purpose of her publication 'is to define the conceptual differences among poly-, inter-, trans- and metadisciplinary approaches to the study and analysis of contemporary science projects on the basis of the distinction among scientific types of rationality: classical, nonclassical and postnonclassical', instead, the author proposes the generalized term 'metadisciplinarity' (Puchkova, 2020, p. 93). Let us note that such a methodological approach and such an interaction among the defined concepts appeals to us.

Methodology

In terms of the methodological base, our article is, in essence, an example of the practical application of the transdisciplinary toolkit. At the same time, the article advocates the metadisciplinary optics of modern philosophy, that is, the ability to describe and analyze the humanities (for example, philology through the prism of the competence approach) using the methodological arsenal of philosophy, which will be demonstrated below.

Thus, the method of the'history of concept' is used for analyzing the theoretical source base of the research, while we use prognostic methods in discussing the prospects for the further development of the 'metadisciplinarity' concept. Structuralist-phenomenological and hermeneutic-ontological methods are actively used, in particular, for explaining the correlation between the terms 'intersubjectivity', 'interculturality', 'multiculturalism' and 'interdisciplinary'. Throughout the research, we introduce the hermeneutic procedures of 'pre-understanding' and interpretation: during the demonstration of the research results (translating the polylogue within the triad 'self-intersubjectivity-interculturality'), during the discussion and even in the conclusions. We implement comparative methodology through the critical understanding of numerous philosophical and cultural trends, i.e. within, beyond, and on the methodological boundaries of axiology, cultural studies, logic, ethics, philosophy, and philology. And the actual logical-analyticalaccentin the article is provided by the appeal to the epistemological prism through the practical dimension of metadisciplinarity (exemplifiedby the course 'Philosophy of science and methodology of humanitarian knowledge').

In the discussion of the article's resultswe actualize the projects of interdisciplinary studies based on poly- and meta-conceptual methodologies, for instance, the international scientific and practical video conference 'Ukraine in the Transcultural and Multimodal World'exemplifies the actualization of the concepts of 'transdisciplinarity' / 'transculturality' (the round table 'Philological transdisciplinarity: from mono- to polydiscursive practices'). Thus, it's a representation of the polylogue between modern trendsin philosophy, philology and cultural studies. Regarding the methodological perspectives for the concept of 'metadisciplinarity', we can note its openness to further research in humanitarian studies in particular, and in modern scientific discourse in general.

Results

Interdisciplinarity of contemporary philosophical studies is primarily implemented in an intercultural environment, while interculturality always functions at the intersection of the interaction of 'own' and 'other' intellectual narrative. That is why there is a problem of correlationamong different cultures and cultural traditions, and interculturality constantly combines techniques and methods of various disciplines, being essentially polydisciplinary. And a comprehensive analysis of today's polycultural space also involves studying the interaction between the concepts of 'intersubjectivity' and 'interculturality', so let us turn to the conceptual origins of intersubjectivity

in the phenomenological tradition, as well as its relevance to the concept of 'interdisciplinarity'.

'Otherology' of the 20th century postulates the category of 'Other' or 'Alien' as an initial concept. Let us recall in the outlined context the famous slogan of J.-P. Sartre 'Hell is other people'(Sartre, 2017, p. 22), represented in 'Otherness' as the need for a mirror (but not distorted!) reflection of 'I-ness' and 'Own-ness'.In the 5th Cartesian meditation by E. Husserl, the Other appears in a double sense: the Other as a closed monad and the Other as a participant in the intersubjective constitution of the world. 'In the experiential horizon of the Other, I find myself the way he experiences me, same as I experience him.As a result of endless mutual reflections, an intersubjective world emerges, through which our common world of nature and culture is born'(Husserl, 2021, p. 83). In contrast to E. Husserl's position, B. Waldenfels contrasts the concept of 'other' with the concept of 'alien'. Thus, in the responsive phenomenology of B. Waldenfels, 'alien' is an instance that requires a response; it is a provocation, claim or demand that comes from outside, from something that lies outside of me. Alien does not mean hostile' (Waldenfels, 2004, p. 206). 'The strange within us'– this is the telling title in one of the subsections of J. Kristeva's work 'Strangers to Ourselves'.'The foreigner is within us. And when we flee from or struggle against the foreigner, we are fighting our unconscious' (Kristeva, 1991, p. 191). Therefore, we must accept foreigners in their 'disturbing foreignness', which is as much theirs as it is ours.'A paradoxical community is emerging', concludes J. Kristeva, 'made up of foreigners who are reconciled with themselves to the extent that they recognize themselves as foreigners'. (Kristeva, 1991, p. 195).Thus, the concept of intersubjectivity necessarily includes both the concept of 'other' and the concept of 'alien', which, in our opinion, are related, but not synonymous.

The lifeworld in the classic vision of E. Husserl is divided into the native world and the foreign world; it is, in fact, an interworld, and since it appears as a world of culture, interculturality is one of its main aspects. According to B. Waldenfels, interculturality contains more than a combination of existing cultures – it can be characterized as 'interweaving'/'intersecting'. In fact, one cannot have his own without foreign, the only question is how do we have the right to think our own and foreign according to the pattern of such an intersection. If one gets used

to one's own identity through identification with others, then it always remains imbued with the error of non-identity. Thus, according to B. Waldenfels, in §52 of 'Cartesian Meditations' E. Husserl starts from the concept of 'appresentation', co-presence, 'which gives the initially inaccessible concept of the Other'. Husserl separates that which cannot be separated, since the foreign inside the own and the own inside the foreign are intertwined like a web (Waldenfels, 2014, p. 85).

B. Waldenfels also analyzes the concept of the 'common world', which interests us in the context of the phenomenon of interculturality. The common world is looming in universalization; it is a world that, expanding its possibilities, at the same time does not leave the 'arena' of open possibilities. It is different with the inter-worlds, which are and remain foreign to each other. Culture owes its originality/authenticity to a responsiveanswer to the foreign, so, in our opinion, foreignness is a priori inscribed in ownness. Thus, we can say that interculturality is open to another culture, but at the same time includes its own influence, so it remains connected with the pursuit of foreign experience. Analyzing the phenomenon of interculturality and drawing an analogy with intersubjectivity, B. Waldenfels tries to find such an 'Inter' that could neither be reduced to the plurality of individual cultures or even one's own culture, nor oriented to an abstract universal culture. The philosopher emphasizes that interculturality means more than multiculturalism in the sense of cultural pluralism, and also more than transculturalism in the sense of overcoming the boundaries of certain cultures. Therefore, in no case can one deny the interaction of own and foreign worlds, own and foreign culture, although modern researchers from various fields of humanities constantly argue over this issue. The task of a true phenomenological research, according to B. Waldenfels, 'consists in the description and interpretation of that intersubjective space in which the Foreign appears as something that expects a response, provokes, motivates, pursues us. Moreover, it may happen that this foreign addresses us from within our own world, that which we are used to consider as our Own.In this case, the native world becomes a foreign one, and in a foreign world we can see something native and familiar'(Waldenfels, 2004, p. 200).

The concept of polyculturalism, defined from the position stated above, ontologically is closely related to the classical concept of

intersubjectivity.Taking into account the phenomenological understanding of intersubjectivity as the basis of interpersonal relations and communication, at the same time we turn to the classical understanding of intersubjectivity as a deep dialogic space, in the tradition of dialogism of M.Bakhtin. Such a dialogic space ('to get some truth about myself, I must turn to the Other') enables both interpersonal relationships and self-discovery.This understanding temporarily moves the subject of fundamental philosophical study from the search for a 'universal essence, which would be human nature', directing the study to the search for a certain generalization of the conditions of human existence, which is a 'more meaningful unity'(Kristeva, 2008, p. 256). In the same way, the phenomena of inter- and polyculturalism do not refer to the problem of the universal essence of culture, because they involve addressing someone else's axiological and intellectual background as a multi-level dynamic process, or, as we would say, an atemporal axiological palimpsest.

Therefore, the non-linear intercultural space of the 21st century is formed as a result of permanent interactions of 'ownnesses' represented through the prism of intersubjectivity, and, at the same time, it is the subject of constant exchange between individual consciousness, which perceives philosophical problematics, and the space of interpersonal perception, implemented in metadisciplinary philosophical studies. We will refer to such processuality as intercultural/interdisciplinary dialogue. If there is similar exchange, then we can talk point out the relationship between the concepts of interculturality and interdisciplinarity, and this already introduces us to the space of polydiscursiveness, to an endless polylogue between the triad 'ownness-intersubjectivity-interculturality'.So, if we proceed from the argument that each ownness is always inscribed in an infinite cultural space-palimpsest, then in the face of growing integrative trends in contemporary philosophy, the idea of intersubjectivity and interculturality opens up a perspective for an equal dialogue/polylogue of all existing cultures without exception, and hence– sciences and philosophies.Thus, it is unacceptable that the idea of inter- and polyculturalism be considered only as a result of self-reflection of responsive phenomenology, 'otherology', intercultural communication and philosophy of dialogue from the 20th century. In our opinion, such a compilation arose in the course of a critical and even ideological reflection on the numerous

philosophical and cultural currents, i. e. within, beyond, and on the methodological boundaries of axiology, cultural studies, logic, ethics, philosophy and philology.

In the context of the above-stated, the following question seems quite justified: how is the reception of philosophy in general taking place in the modern world? How can philosophical and philological education be implemented at the level of practice? If we proceed from the argument that 'only philosophy in the epistemological and cultural dimensions is the principle that forms a critically thinking personality, while developing the culture of thinking as an intention for methodological reflection'(Komisar, 2017, p. 131), then there is a need for innovative philosophical strategies. In particular, we propose to 'extrapolate the outlined problematics to the areas of understanding the specifics of the competence approach as a student's ability to synthesize the acquired educational knowledge with practical activities; with intentions to transform educational activities into professional ones.In our opinion, it is the competence-based approach, the implementation of its principles in the process of mastering philosophical disciplines by students that enablesthepracticing of humanistic intentions, which should a priori be inherent in the specified disciplines'(Komisar, 2017, p. 132).

Letus make an attempt at substantiating the outlined problem in an inter-/transdisciplinary vector, which has been implemented for several years, in particular, in the process of training doctors of philosophy at the Kyiv National Linguistics University. Asiswellknown, European integration is the dominant trend intoday's Ukraine, and the formation of European consciousness is impossible without philosophy, which has been the core of Western civilization and its cultural code since Antiquity. Thus, adequate reintegration of philosophy into the modern education system is necessary at the moment. For example, the combination of the philosophical component, in particular in the perspective of acquiring the skills of a reflective and critical attitude to reality, with the philological and professional teaching components, results in the creation of an innovative interdisciplinary segment such as the philosophy of education.It is enough to mention the vector of the 'humanistic tradition', which in the middle of the 20th century was reactualized by the philosopher, philologist and translator H.-G. Gadamer. According to the thinker, the 'humanistic tradition' fundamentally combines

ethics – as the practice of common sense, the ability to make critical judgments, and tact/tactfulness– with education (Gadamer, 2000, p. 40), moreover, education in its classical enlightenment sense, manifested only in self-education. Therefore, the educationalfocus of modern youth on self-development and self-reflection should undoubtedly be (and it is) re-actualized in university educational and academic programs, especially when it comes to acquiring the Doctor of Philosophy academic degree and the pretentious classical status of the University as a center of critical thinking and training of intellectual elites.

Therefore, in order to implement the above-mentioned ideas, we proposed the course 'Philosophy of science and methodology of humanitarian knowledge', which has a vector forassisting postgraduate students inshapingthemodern knowledge system about logical, methodological and epistemological shifts in the latest scientific paradigms and means of their conceptualization in the current trends of continental and analytical philosophy, as well asthe implementation of acquired knowledge in teaching practice. In this course, the forming of professional competences is complemented by the graduate students' awareness of the need to deepen their knowledge about the strategies of the interaction of logic, philosophy and philology in their plural and peripheral ramifications. Thus, the philosophical component is effectively implemented in the philological professional competence of graduate students and the corresponding skills in choosing, combining and implementing of the methodological projects of scientific research and educational practice.In addition, the specified discipline is aimed at deepening and systematizing the knowledge of graduate students regarding the specifics of assessing possible risks and the heuristic potential of interdisciplinary research projects through the prism of combining the scientific component with the professional educational component. During the study of the first module 'Modern tradition of the philosophy of science from mathematical natural science and gnoseology to the epistemology of humanitarian knowledge and social sciences', postgraduate students develop an idea of *science* as an ideal of scientificuniversality, which is the methodological basis for scientific research and professional educational activity. The Neo-Kantian 'sciences of nature'/'sciences of spirit'distinctiontransforms science from goal-rational to value-rational action, which has a practical application in the epistemological,

reflective, value-oriented activities of the future teaching staff. Within the framework of the module, the analysis of the post-epistemological era/projects of modern science as interdisciplinary research is the prism of the practical implementation of the theoretical philosophical and scientific background in the field of teaching practice of postgraduate students.The analyzed topics of the module have a practical application in the seminar No.1 'Gnoseology and epistemology: collisions of distinction. Transformation of epistemology'.

In the second module 'The genesis of New European rationalism and the program of transcendental substantiation of rigorous science', Cartesian rationality and the idea of universal objective science and theoretical autonomy of the scientist are the practical basis for conceptualizing the teaching experience during the professional educational activity of a postgraduate student. The outlined module is implemented in seminar No.2 'Categories as an epistemological/ontological problem of science'. During this seminar, the theoretical foundations of (linguistic) experientialism, the transcendental substantiation of scientific knowledge, the Enlightenment'sprejudice of scientism, the transcendental nature of categories form a universal semantic structure of the world. In the third module, 'Philosophical hermeneutics and narratology', postgraduate students develop a system of knowledge about the philological-historical model of 'sciences of spirit' through the prism of the European tradition of Renaissance *studiahumanitatis*, which is integrated into philology as a science.In other words, the exploration in the field of philosophical hermeneutics as a philosophy of understanding is particularly significant for the professional activity of a postgraduate philology student, because educational receptions of the modern transformation of scientific knowledge contribute to the expansion of the worldview positions of a scientist, especially considering the fact that hermeneutics as a critique of meaning aims to demonstrate the criteria for the 'increase in meaning' through the prism of universal conditions for symbolic communication in the 'world-Text'. The outlined skills and competences are implemented in the discussions at workshop-seminar No.5 'Understanding as a universal cultural and logical category'.There is no argument about the importance of communicative competence acquired by future young researchers. The latter deepens when graduate students proceedto study the third content module to strengthen their general skills

of responsive dialogical culture, i.e. the ability to objectively enter into a dialogue with the bearers of different worldview positions, a tolerant attitude towards others, improvement of effective communication skills whenengaged in teaching activities, dialogue in society etc.

The fourth module 'Analytical philosophy: a turn from the logical analysis of the language of science to linguistic philosophy, philosophy of language and philosophy of consciousness presents fundamental interdisciplinary trends, and especially significant for scientific mastery are thematic blocks on the issues of the linguistic turn, philosophy as a critique of language and the logic of science.In particular, reflection and elaboration on L. Wittgenstein's (2023) 'Logical and Philosophical Treatise' and the philosophy of logical analysis at the seminars No.3 'Linguistic turn and philosophy of language of L. Wittgenstein' and No.4 'Analytical philosophy: between linguistic philosophy, philosophy of language and philosophy of consciousness (Philosophy of Mind) results in the forming of the critical thinking competences in future PhDs, because they are based on the analysis of logical laws in their application to everyday communication through the prism of the turn from logical positivism (based on fact) to critical rationalism (based on the 'language game' and everyday communication).The specified problematic sections contribute to the application of the science's logical apparatus, for example, during the evaluation by postgraduate students as future teachers of students' educational achievements during the educational process.

Discussion

The 21st century actualizes projects of interdisciplinary studies based on poly- and meta-conceptual methodologies, for example, on the conceptual basis of structural linguistics or logic, while modern philosophy and philology appeal, for example, to developments in the field of semiotic and logical theories.In this way, semiotics (Ch.-S. Peirce) or semiology (F. de Saussure) reveals the signs of a new 'metadiscipline', which makesitself felt in the transformations of modern philosophical, philological, sociological, cultural and other discourses. From the second half of the 20th century until today, continental and American projects of 'semiotics' of literature, fashion, cinema, sports, architecture, political life, advertising, and so on appear not only as examples of critical analysis of consumer society, not only as experimental research

practices based on the methodology of structural linguistics and aimed at objects that are deviant for the latter (proper objects of the so-called 'translinguistics') but also as samples of a qualitatively different form of scientific reflection.The search for such alternatives is certainly underway. In particular, according to L. Shashkova, 'transdisciplinarity is understood as a certain meta-level that allows combining various cognitive strategies and ways of thinking, based on the combination of theory and practice, which remove the limitations of disciplinarily organized science'(Shashkova, 2022, p. 39).

The international scientific and practical video conference 'Ukraine in the Transcultural and Multimodal World', held on May 25, 2022 at the Kyiv National Linguistics University can be seen asan illustrative example of actualizating the concepts of 'transdisciplinarity' / 'transculturality'. In particular, it is worth mentioning the round table 'Philological transdisciplinarity: from mono- to polydiscursive practices', where the report of associate prof. L. Komisar 'Philosophy of Language as a Projection of Polydiscursivity of Modern Epistemology' and the report of prof. O. Marina 'Multidiscursivity of the 21st Century Artistic Discourse: Multimodality and Transmediality Issues'(Ministry of Education and Science of Ukraine, 2022, p. 4) causedpeculiar interest among the participants, perhaps precisely because it was a polylogue between modern currents of philosophy, philology and cultural studies.

Conclusions

Let us summarize. The article examines the correlation of the terms inter-, trans-, polydisciplinarity and their reception in multimodal currents of modern humanities. The study emphasizes the role of philosophy in epistemological and cultural dimensions as the formation core of critical thinking inanindividual and a generator for the development of a culture of thinking with the intention of methodological reflection. The article reactualizes the phenomena of intersubjectivity / interculturality in the non-linear dimensions of the network society, where the intercultural space of the 21st century is being formed as the result of intersubjective interactions of 'selves'. In fact, thereis a permanent exchange between the individual consciousness, involvedinphilosophical problematics, and the expanse of interpersonal perception, implemented in metadisciplinary philosophical

studies. Such processuality is defined as the intercultural / interdisciplinary polylogue.

Thestudy proves that the phenomena of inter- and multiculturalism involve the appeal to the 'alien' value-oriented and intellectual background as a multi-level dynamic process and atemporal axiological palimpsest. We emphasizethe relationship between the concepts of interculturality and interdisciplinarity, which, in turn, leads the researcher into the realm of polydiscursiveness, to the endless polylogue within the triad 'self - intersubjectivity - interculturality'. Thus, if we proceed on the assumption that each self is always inscribed in an infinite cultural space-palimpsest, then amid the growth of integrative trends in modern philosophy, the ideas of intersubjectivity and interculturality open the perspective for an equal dia- / polylogue for all existing cultures without exception, and therefore – for sciences and philosophies. We emphasize that such a compilation arose in the course of critical and even ideological reflectionon numerous philosophical and cultural currents, i.e. within, beyond, and on the methodological boundaries of axiology, cultural studies, logic, ethics, philosophy, and philology.

The article revealesthe practical horizon of metadisciplinarity examplified by PhD training program at the Kyiv National Linguistics University. In particular, it emphasizes the need for an adequate reintegration of philosophy into the modern education systemandcreates the innovative interdisciplinary segment 'Philosophy of science and methodology of humanitarian knowledge' as a result of combining philological and profession-oriented teaching components with the philosophical component, in particular with a view to acquiring the skills of reflective and critical attitude to reality. It has been proven that this educational programsetsavector for postgraduate students' to formthe system of modern knowledge about logical, methodological and epistemological shifts in the latest scientific paradigms and the means of their conceptualization in the current trends of continental and analytical philosophy as well as the implementation of acquired knowledge in teaching practice. In this way, the formation of professional competences is complemented by the postgraduate students' awareness of the need to deepen their knowledge about the strategies of interaction among logic, philosophy and philology in their plural and peripheral ramifications. Therefore, the philosophical component is effectively implemented in the professional philological competence of postgraduate students and the corresponding skills in selecting, combining and implementing methodological projects of scientific research and educational practice.

Thestudy concludes that the combination of specific scientific knowledge (in particular, logic and philology) and the powerful categorical apparatus of philosophy in the modern education system affects the formation of a flexible and at the same time deep conceptual and axiological 'grid', which can be effectively implemented in modern scientific trends and philosophical polylogues. Therefore, the multimodal strategy for metadisciplinary dimensions of modern philosophy represented in the article contributes and will continue to contribute to the development of innovative paradigmatic trends.

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Influence of gender stereotypes on the socialization of the children of older preschool age

Вплив гендерних стереотипів на соціалізацію дітей старшого дошкільного віку

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Abstract

Within the framework of the theoretical analysis of psychological and pedagogical sources, the content and essence of the concepts "gender", "gender socialization", "gender sociability", "gender stereotypes" were clarified and pedagogical conditions, namely: organization of an effective subject-playing area of the group for meaningful enriching the experience of gender communication in the children's team; stimulation of the interaction of different gender subjects in a single social-and-developmental educational environment of a preschool educational institution; presence of positive incentives for interaction in a mixed-gender group as a factor in the formation of a child's gender competence were determined. It was proven that their implementation was ensured

Анотація

У межах теоретичного аналізу психолого-педагогічних джерел уточнено зміст і сутність понять «гендер», «гендерна соціалізація», «гендерна комунікативність», «гендерні стереотипи» та визначено педагогічні умови, а саме організація ефективного предметно-ігрового простору групи для змістовного збагачення досвіду гендерного спілкування в дитячому колективі; стимулювання взаємодії суб'єктів різної статі в єдиному соціально-розвивальному освітньому середовищі закладу дошкільної освіти; наявність позитивних стимулів до взаємодії в різностатевій групі як чинника формування гендерної компетентності дитини. Доведено, що їх реалізація забезпечувалася шляхом оптимального поєднання ефективних форм і методів роботи з

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through an optimal combination of effective forms and methods of working with children of older preschool age, aimed at the formation of gender socialization, culture of relationships with peers of the same and opposite gender, a tolerant attitude towards them, and ability to establish friendly partner relationships. Specified pedagogical conditions were implemented at three successive stages: cognitive-oriented, organizational-targeted, activity-directive, using the following forms and methods of work as: a series of games, exercises, conversations, communication, work in nature, method of problem situations aimed at raising children's awareness of gender roles.

Keywords: gender, gender stereotypes, gender socialization, gender sociability, socialization, children of senior preschool age.

дітьми старшого дошкільного віку, спрямованих на формування гендерної соціалізації, культури взаємин з однолітками своєї та протилежної статі, толерантного ставлення до них, уміння встановлювати доброзичливі партнерські стосунки. Визначені педагогічні умови реалізовувалися на трьох послідовних етапах: когнітивно-орієнтовному, організаційно-цільовому, діяльнісно-директивному, з використанням таких форм і методів роботи, як: серія ігор, вправ, бесід, спілкування, праця в природі, метод проблемних ситуацій, спрямованих на підвищення рівня усвідомлення дітьми гендерних ролей.

Ключові слова: гендер, гендерні стереотипи, гендерна соціалізація, гендерна комунікабельність, соціалізація, діти старшого дошкільного віку.

Introduction

At the current stage of the development of Ukrainian society, there are changes in the content of theoretical and methodological, and practical approaches in the field of education, in particular, process of children socialization is carried out taking into account the gender characteristics of the personality. Currently, gender issues are constantly in the center of attention of the European Community. This aspect becomes especially relevant in connection with Ukraine gaining the official status of a member of the "Biarritz Partnership" – an international initiative of equal rights and opportunities for all. Within the framework of this project, Ukraine has identified priority areas of activity aimed at ensuring comprehensive integration of the principles of gender equality in education.

In Ukraine, the problem of gender formation of a child's personality is reflected in the following regulatory and legal documents: the Constitution of Ukraine (Constitution of Ukraine No. 254к/96-ВР, 1996), regulatory and legal acts of Ukraine: "On Education" (Law of Ukraine No. 2145-VIII, 2017), "On Ensuring Equal Rights and Opportunities of Men and Women" (Law of Ukraine No. 2866-IV, 2005), "On Preschool Education" (Law of Ukraine No. 2628-III 2001), "National Doctrine of Education Development" (Decree of the President of Ukraine No. 347/2002, 2002), "Basic Component of Preschool Education (State Standard of Preschool Education), New Edition" (Order No. 33, 2021). Unfortunately, the state gender policy is characterized by contradictions,

diversity, dynamism and often stereotypes, which leads to negative consequences for the formation of gender culture in the future generation. Currently, there are virtually no scientifically based mechanisms for overcoming gender stereotypes and effective measures aimed at the effective socialization of older preschool children.

Formation of gender stereotypes of a personality is connected with two interrelated processes: children's awareness of gender identity (the ability to associate themselves with a certain gender based on primary self-awareness and the development of cognitive processes) and mastering the basics of gender identity (children's understanding of male and female roles). It is gender stereotypes that are the basis of socialization, as they help to keep existing gender roles, norms of behavior accepted in society. The presence of signs of gender stereotyping during older preschool childhood indicates the sensitivity of this age stage in their formation.

Overall, the formation of gender identity in preschool children is a complex process influenced by a combination of social, cultural, biological, and personal factors. It's important to create an environment where children can freely express their identity and interests, regardless of gender stereotypes. Encouraging gender equality and allowing children to explore a wide range of activities and interests can support healthy gender development.

However, in the modern conditions of the society development, preschool educational institutions usually continue to reproduce the standards of traditional culture in matters of gender formation, which contributes to the formation of stereotypes of the self-perception of a preschooler's personality by gender characteristics. By their essence, gender stereotypes are a type of stable, emotionally saturated social stereotypes, which the generally accepted idea of "male" and "female" roles in public life is fixed. At the same time, gender stereotypes have a negative effect on self-realization of the personality, acting as a kind of barrier in the realization of the person's individuality.

This study clarifies and characterizes the essence of the concepts of "gender socialization" and "gender stereotypes" and identifies pedagogical conditions, forms and methods of forming gender roles in preschool children based on the application of the gender approach.

Literature review

The main purpose of the modern education system in Ukraine and abroad is to create conditions for the development and self-realization of each personality (Vasylenko et al., 2022).

The studies of scientists note that the assimilation of civilized traditions of life in Ukraine, as well as its integration into the European community are impossible without harmonization of social relations based on gender socialization. Education as one of the most important social institutions capable of integrating the gender approach into the educational process of educational institutions and laying bases for the formation of a social gender culture plays a significant role in the transformation of the system of gender relations (Rogošic et al., 2020).

In modern scientific studies (Cerbara, et al., 2022), it is proposed to implement a gender approach that will ensure overcoming gender stereotypes, provide an expansion of living space for the development of individual abilities, promote in the implementation of gender equality of children, stimulate gender tolerance and orientation to partnership, interchangeability in the performance of future family and social roles. It is one of the methodological bases that requires changing a traditional vector of educational technologies under the motto "We are different – we are equal".

The gender approach is aimed at creating comfortable conditions for gender identification and effective socialization of the personality (Skočajić et al., 2020).

The problem of gender stereotypes, in particular, its philosophical, social-and-psychological and pedagogical aspects are very popular among modern researchers, in general, they agree that gender stereotypes reflect a system of ideas and values concerning the understanding of the relationship between a man and a woman, as well as the change and historical path of their formation (Govorun et al., 2013).

At the beginning of the 20th century, one of the first researchers who turned to the study of the process of assimilation of gender stereotypes by children was M. Mead (1928), the American anthropologist. Scientist came to the conclusion that ideas about masculinity and femininity were not innate, they were formed by society in the process of a personality socialization. Gender stereotypes were connected with existing social stereotypes: girls were expected to develop traditionally female self-identities, boys – male ones. From the very beginning of the society development, the process of children socialization has been stereotyped according to gender characteristics. Gender stereotypes determined by culture are simplified, stable, emotionally colored images of behavior, character traits of men and women (Erikson, 1993).

To fully understand the essence of the raised problem, we will reveal the content of the concepts: "gender", "gender socialization", "gender sociability", "gender stereotypes".

It should be stopped at the analysis of the concept of "gender". Therefore, gender (from English *Gender* – genus, sex) is defined as a social-and-psychological characteristic that distinguishes a person's gender – "man" or "woman" (Secheiko, 1999, p. 25). The concept of "gender" means sex as a social phenomenon, like all that social that is formed over the biological sex.

Another concept of our research is "gender socialization", which we consider as the process and result of the general and psychosexual development of a girl/boy in accordance with the age-related features of growing up, determined by specific social conditions; as a process of personality development, individuality of a girl/boy in real life activities, which is carried out

in the system of relationships with adults, peers of the same and opposite sex, and oneself.

According to V. Tkalych (2011), gender socialization of a child is a process of reproduction of the social-and-cultural component of masculinity and femininity, which is carried out with the help of imitation and transformation of values, norms, attitudes, gender models of individuals behavior, social groups and a specific society and provides the essence and factors of the personality socialization.

Therefore, gender socialization of a personality is the process of assimilation of social norms, rules, behavior characteristics, attitudes in accordance with ideas about the gender role, its formation and purpose.

The following functions can be identified in the personality gender socialization: social adaptation, which means standardization of speech, gestures characteristic of the representatives of a certain gender, perception of gender stereotypes, values, meanings, symbols and inculturation – assimilation of the traditions of the gender culture of society with the aim of passing them on to the next generation; internalization of a personality, which includes the development of a specific hierarchy of motives, values, interests, formation of gender identity, correspondence between mental gender and gender role (Moskalenko, 2008, p. 325).

Therefore, the essence of gender socialization consists in mastering gender behavior by a child, forming a positive attitude towards oneself as a representative of a certain gender and ideas about gender norms of relationships between people of different genders.

The result of the gender socialization process is gender sociability of older preschool children, the level of which was determined in our research. It is characterized by children's assimilation of ideas about the norms of relations between different genders in society, formation of a positive gender Self-image, ability to keep the norms of gender behavior among peers and adults.

It is gender stereotypes that are the basis of socialization, as they help to keep the existence of gender roles, norms, models of personality behavior and thinking accepted in society (Burns, 1982).

Therefore, gender stereotypes have high durability, are rooted in a personality consciousness for a long time, and are reproduced by new generations in the process of socialization. To a large extent, they act as a magnifying glass, emphasizing more strongly the differences between genders, which inhibit the development of personality traits that do not correspond to stereotypes.

Sociological, psychological and philosophical studies of gender are not accurately reflected in the new educational paradigm, teachers are not sufficiently informed about current studies in this field. Therefore, there is a need to use experience, scientific-and-methodical, psychological-and-pedagogical works of the countries that have achievements in implementing a gender component in the life of educational institutions.

Let's take a closer look at the preconditions for applying a gender approach to the educational process. Researcher Petrenko (2010) singled in the educational process, most methods and technologies are oriented towards the education of an impersonal average personality; a unified approach causes disharmony in intergender relations, which leads to stereotyping and limitation of interpersonal relationships between boys and girls.

Gender approach as a new methodological tool of analysis is substantiated by a modern researcher O. Petrenko as "a new methodological tool for the inclusion of a personality in the existing gender distribution in the country and society through the construction of education and upbringing" (Govorun et al., 2013, p. 73). An important means of applying a gender approach is the organization of joint activities of representatives of different genders to enrich the experience of interpersonal communication (common classes, organization of leisure time, experimental research activities, organization of mutual assistance, common game activities) (Govorun et al., 2013, p. 15).

Gender approach in education as a mechanism for achieving gender equality and establishing equal opportunities for the self-realization of each personality involves: orientation towards the neutralization and mitigation of the difference between genders, gender stereotypes; consideration of social-and-gender differences; lack of orientation to the "special purpose" of a man or a woman; encouraging types of activities that correspond to the interests of a personality, education in the spirit of free choice of gender identity, encouraging types of activities that

correspond to the interests of a personality, the possibility of withdrawal from traditional patriarchal models of society building.

Within the framework of a gender approach, the change in values, orientation towards the egalitarian nature of gender roles, which ensures their universalization and interchangeability, acquires special importance (Govorun et al., 2013, p. 8).

The aim of the research

The purpose of the article is to highlight and experimentally verify, based on a theoretical analysis, the problem of researching the efficiency of forms and methods of forming gender sociability of older preschool children in the educational process of a preschool educational institution.

Methodology

In accordance with the purpose, the following research methods were used: 1. Analysis and synthesis of scientific sources on the problem of the studied topic, used to clarify the purpose of the research, to define the essence of the key concepts of the process of forming gender sociability of older preschool children in the educational process of a preschool educational institution. 2. Study of the coordination of pedagogical experience in order to identify the state of formation of gender sociability of older preschool children in the educational process of a preschool educational institution and the efficiency of the application of selected forms and methods of work at a formative stage of the experiment. 3. Observation of children's activities in the conditions of gender interaction and communication.4. Pedagogical experiment to determine the efficiency of implementation of selected pedagogical conditions.

For the process of research and experimental work, children of older preschool age with norm-typical development who attend preschool education institutions were selected, namely: a preschool educational No. 12 nursery-kindergarten of a combined type of Uman City Council, a preschool educational institution No. 25 nursery-kindergarten of a combined type of Uman City Council, Uman Primary School No. 1 of Uman City Council, preschool educational institution No. 34 nursery-kindergarten of a combined type of Uman City Council. 180 children of older preschool age from the preschool educational institutions took part in the

experimental work, and they were united into experimental groups (90 respondents each).

The instruments of data collection in our study were a psychological and pedagogical experiment (stating, formative, control stages), which used the following methods: observation, survey, recording of information, statistical processing of the results.

In accordance with the analysis of the theoretical foundations of socialization, generalized data on the specifics of the influence of gender stereotypes on this process, in the ascertainment phase of the experiment, criteria (cognitive, emotional-and-value, activity-based), indicators were developed and levels (sufficient, medium, low) of gender sociability of a personality in older preschool childhood were characterized.

In the ascertainment phase of the experiment, the following methods were used: conversations, didactic games, analysis of activity products, verbal associative experiment, work with a fairy tale, observations with preschoolers and questionnaire of parents and preschool teachers. Obtained results showed that the majority of older preschoolers were at medium and low levels of gender sociability. The low level of awareness of preschool teachers and parents on the issues of the formation of gender socialization of older preschoolers and the significant influence of gender stereotypes formed in them was among the reasons that slowed down the process of personality socialization in the conditions of the educational process of a preschool educational institution. Therefore, there is a need for the development of various forms, methods and pedagogical conditions for the application of a gender approach in working with the children of older preschool age and purposeful introduction of preschool teachers and parents to the principles of gender socialization.

The formative phase of the experimental research was conducted in three stages: cognitive-oriented, organizational-targeted, activity-directive. During the experimental work, the following factors were taken into account: age characteristics of older preschool children, their social experience, specifics of the educational process of preschool educational institutions.

Student's t-test (t-statistic) and appropriate calculations to check the reliability and statistical validity of significant changes in the levels of

gender socialization formation of older preschool children were used.

Experimental work with the children in the formative phase of the experiment was based on the assumption that socialization was carried out by the personality's assimilation of ideas about the norms of gender relations, formed positive emotional and value attitudes towards themselves and representatives of different gender, accumulation of practical experience of partner gender relations based on the application of a gender approach.

We focused attention on the importance of pedagogical conditions that were implemented in all phases of experimental work and ensured an optimal combination of the following methods and forms of organization of the educational process: group and individual activity on moral education, games-competitions, game exercises, talks, conversations, practice in situations of success, situations causing different emotions and feelings, exercises for the development of the ability to listen to others, modeling the ways to express feelings, didactic games, collective stories, demonstration of verbal means of expressing signs of sympathy for the children of the group, introduction of motives for social encouragement of common activities, method of comparison, modeling and forecasting life-significant situations, walks, use of children's artistic and literary creativity in organized and free activities, game design, methods of problem situations and playing them in role-playing games, etc.

The authors of the article followed certain ethical rules. First of all, before conducting the experiment, all ethical requirements were taken into account and consent from the participants of the experiment (preschool teachers, parents of preschool children) who were informed about the purpose and objectives of the experiment was obtained.

Results and discussion

Appropriate pedagogical conditions of the research based on the justification of the theoretical base were determined. They were aimed at increasing the efficiency of step-by-step methodology for the formation of gender competence of older preschoolers in the context of the application of person-oriented and gender-based approaches. They included such components as: organization of an effective subject-playing area of the group for meaningful enriching the experience of gender

communication in the children's team; stimulation of the interaction of different gender subjects in a single social-and-developmental educational environment of a preschool educational institution; presence of positive incentives for interaction in a mixed-gender group as a factor in the formation of a child's gender competence. It was proved that only the comprehensive provision of these pedagogical conditions could contribute to solving the problem of the formation of gender sociability with the use of selected and experimentally verified research methods.

The first pedagogical condition – organization of an effective subject-playing area of the group for meaningful enriching the experience of gender communication in the children's team required the presence of a large playing space: equipment and materials for playing, thematic toys, various attributes and multimedia tools. All toys, materials, attributes, and substitute items were combined according to the functional characteristics in accordance with various types of children's subject-playing activities (thematically-reflective, building, motor, etc.). Most didactic materials, toys and pictures were multifunctional, that is, they were used in different ways, depending on the purpose of the activity.

Properly organized subject-playing area contributed to the child's gender socialization, affected all aspects of his/her development and was a source of enrichment of children's activities. Within the organized area, preschool teachers stimulated children's self-regulation (for example, they encouraged girls to play sports, and boys to self-care); organized tasks for boys and girls in common activities; removed traditional cultural prohibitions on boys' emotional self-expression, encouraged them to express their feelings; created conditions for training intergender sensitivity (for example, through theatrical activities, trainings).

The next pedagogical condition – stimulation of the interaction of different gender subjects in a single social-and-developmental educational environment of a preschool educational institution involved interpersonal interaction in common activities, which contained significant reserves, namely: mutual influence of the children of different gender, mutual assistance, training of a different gender group. Cross-gender interaction of children was especially valuable because it allowed a preschool teacher to use it as a factor of mutual learning. In common activities, in games, purposeful

formation of speech took place, new forms of communication were formed, and such an important quality of behavior as ease of communication developed, a mechanism of self-evaluation and self-control was formed. It should be noted that the formation of gender competence in older preschool children was effective under the condition of organizing common types of activity in homogeneous and heterogeneous groups. Organization of a comfortable effective educational space made it possible to form children's ability to find a common language, achieve harmonious understanding, tolerant attitude towards each other, formed creative individuality and creative abilities of children, and also had a positive effect on their psycho-emotional state.

The third pedagogical condition included the presence of positive incentives for interaction in a mixed-gender group as a factor in the formation of child's gender sociability.

This condition provided the formation in children the ability to coordinate their actions with other children, to carry out self-regulation, self-control of behavior, acts and actions and their consequences for others, to distinguish socially acceptable behavior from antisocial one, to overcome feelings of alienation and aggression, to remove protective barriers, to form an emotional feedback leading to overcoming lack of self-confidence, mastering the skills of supporting each other, the desire to see peers as friends and game partners.

In various types of activities, the children realized their knowledge about cultural standards of behavior, acquired the skills of establishing partner, friendly relationships with peers (ability to agree, understand other's point of view, come to help, rejoice at other's success (male-friend, female-friend), take good care of the results of someone else's work).

A preschool teacher's task was to use positive incentives for interaction in a mixed-gender group, to build a bridge that would help unite children, their desires, and aspirations for mixed-gender interaction.

Within the defined pedagogical interaction, the children acquired the ability to empathize, sympathize, help others, choose appropriate ways of communication in various life situations, interact effectively with each other, take an active part in mastering certain gender roles, norms and functions.

As a result of performing the tasks, the children came to the conclusion that each child had his/her own interests, thoughts, desires, and abilities, which were manifested regardless of gender. In the process of implementing the specified pedagogical conditions, the children developed the ability to coordinate their actions with other children, to form the skills of self-regulation, self-control of behavior, acts and actions and their consequences for others. The children learned to feel unity with others, to notice the positive qualities of others, to rejoice in the successes of others and to express this joy in words.

The purpose of the first – cognitive-oriented – stage was to form children's interest in mixed-gender interaction, to make children aware of gender roles and gender identification. The tasks of the stage were: enrichment of the emotional and sensory sphere of children; formation of a sense of belonging to a gender, showing emotional and sensory unity with children regardless of gender; fostering interest in children and social-and-emotional need for communication with peers. At this stage, the first pedagogical condition was implemented: *organization of an effective subject-playing area of the group for meaningful enriching the experience of gender communication in the children's team*. The content line of the implementation of the tasks of the first stage, aimed at making the child aware of his/her own emotions and feelings, stimulating interest in the children of the group and the need to communicate with them, included: games-exercises, conversations, games-competitions, practice in situations of success, situations causing different emotions and feelings, exercises for the development of the ability to listen to others, modeling the ways to express feelings, didactic games, collective stories.

In particular, the following didactic games were used: to demonstrate verbal means of expressing signs of sympathy for the children of the group ("We are all so different, but equal", "Find a pair", "Captain of the ship", "Pass the movement", "Hello", "Who lives in a fairy-tale house?", "Mirror", "Picture for a birthday child"); for the purpose of forming in children the idea of themselves as a representative of a certain gender, a positive attitude towards themselves: "Who am I?", "What do I want to be", "Who are we talking about", "Dress correctly", "What - for what?", "What do girls like, and what do boys like"; discourses on the topics: "What errands are performed by girls and what - by boys", "What is

good and what is bad?"; excursions to production facilities; "Who can become who", "Boys and girls – masters of all trades", "Girls are future mothers, boys are future fathers".

The following common classes were held with children: "What professions are there for the brave", "Protection and compassion – the qualities of a man and a woman", "Boy and girl behavior", "Good – bad", didactic games: "He and she are like naughty", "Describe a portrait of a girl or a boy", "A boy and a girl are so different and so similar", "How to act properly", "A boy and a girl are a future family", "Listen and find", "Boys and girls are similar to themselves".

Game-competitions stimulating cognitive activity were used: "Name a brave profession", "Describe a portrait of a girl (boy) in words", "Who will convey the character of the hero (heroine) of a famous work?", "Who composes a short story about a boy (girl, mother, father, grandmother, grandfather) with the following words (cheerful, mischievous, funny, hero, brave, winner, gentleman, etc.)".

During conducting classes and games, we paid attention to the fact that often character traits and behavioral characteristics did not depend on the child's gender, but only on what actions parents, educators, friends expected from him/her, what they praise and what they berate for. These methods and forms of work made it possible to implement the tasks of the first stage. In particular, the use of multimedia and interactive methods allowed children to form an idea of modern gender roles. After all, the conditions of gender socialization require girls to show not only traditionally feminine qualities (softness, femininity), but also determination, initiative, the ability to defend their own interests and achieve results, and boys – tolerance, sensitivity, and the ability to come to help. In the process of interaction, the preschool teachers encouraged the children to evaluate the features of the gender behavior of the fairy tales and cartoons heroes from the point of view of the use of gender stereotypes.

The purpose of the second – organizational-targeted – stage was the formation of children's abilities to build constructive gender relations and harmonious relationships (to initiate help, sympathy, emotional support, to do good useless deeds). The tasks of this stage included: formation of socially-oriented motives for the common activities of children of different gender; directing children to achieve positive results in common activities; ability to establish

positive relationships between children of a different gender group. During the second stage, the second pedagogical condition was implemented: *stimulation of the interaction of different gender subjects in a single social-and-developmental educational environment of a preschool educational institution*. A number of various methods and forms of work was the substantial aspect of the implementation of the tasks at this stage: game exercises, developmental games, problem situations, common collective creativity, errands, entertainment, organization of children's practical experience, introduction of motives for social encouragement of common activity, self-service, work in nature, visual activities, sports games, "rukhanky" (exercises) which contributed to assimilation of gender behavior and culture of relations with peers of the same and opposite gender, tolerant attitude towards them, ability to establish friendly partner relations.

The following game situations: "Scene with toys – a ready-made solution", "Native, familiar, stranger", "Why did people come up with rules?", "We teach our friends that things we can do well ourselves", "Builder", "Mosaic", "Broken phone" and others were among them. Indirect methods of guidance (leading questions, prompts, preliminary positive evaluations), methods of setting up for success in achieving positive results, elements of psychological training, methods of organizing activities, analysis of various types of situations that arose spontaneously or were created by a preschool teacher were also used.

In the course of role-playing games, game situations like "My family", "Airport", "Moving to a new flat", "We are waiting for the guests", "Toy store", "Children are sick", "Birthday celebration" and real life activities, children implemented their knowledge about cultural standards of behavior, acquired the skills of establishing partner, friendly relationships with peers (ability to agree, understand other's point of view, come to help, rejoice at other's success (male-friend, female-friend), take good care of the results of someone else's work).

The example of equality of requirements for girls and boys was sports games and exercises. For example, a preschool teacher could offer to play "kozaky-rozbiinyky" (Cossacks-bandits), which both boys and girls want to play, learning about the world. Children were convinced that there were no types of occupations or professions that would be suitable only for the representatives of

a certain gender. It is worth studying everything that interests you regardless of gender. For example, both boys and girls learned to make "varenyky" or made bicycles. Children assimilated gender behavior through learning about moral norms of behavior among people. Boys learned to help their parents, to acquire self-care skills, to be sensitive; girls were taught to be brave, independent, be good at technology. Preschool teachers encouraged children to develop universal human traits, such as creativity, independence, confidence, courage, sensitivity, which were valuable traits for individuals of both genders during activities on the development of speech and visual arts.

The third – activity-directive – stage was aimed at the effective introduction of various forms of interaction between preschoolers of different genders in the process of common activities. The tasks of this stage were: education of social behavior in gender relations; mastering constructive actions regulating common activities; training in the ability to find effective forms of cooperation between children in a multi-gender team, development of skills to use moral norms of behavior in accordance with their individual interests, taking into account gender. At this stage, the third pedagogical condition was implemented: *presence of positive incentives for interaction in a mixed-gender group as a factor in the formation of a child's gender position*. The substantive aspect of the work at this stage involved solving problem situations using the following methods: preschool teacher's instruction, encouragement or approval, which stimulated correct behavior of participants in the acting-out situation, and methods: group and individual classes, ethical discussions, exercises, role-playing games, communication with children on various topics, walks, the use of fiction, children's literary creativity, game projecting of problem situations: "Bridge", "Stairs", "Cloud", game exercises "Candle", "Opposition branch", "Compliments", games "Finish the picture", "Guess", "Our panel", "Glove".

Organizing common games, in particular, with family-related content: "We are waiting for the guests", "Family vacation outside the city", "Family holiday", etc. and dramatization games based on the plots of fairy tales, we created situations in which preschoolers were able to empathize with the experiences of the characters and compare standards of moral behavior in the fairy tale with his/her own behavior. In such games, it was important to overcome the disunity between boys' and girls' play groups, which usually arose due to differences in their play interests.

In our opinion, in organization of work on gender socialization of preschool children, preschool teachers and parents successfully supplemented the area of self-regulation of the children (for example, they encouraged girls to play sports, and boys – to self-care); organized tasks for boys and girls in common activities; removed traditional cultural prohibitions on boys' emotional self-expression, encouraged them to express their feelings; created conditions for training inter-gender sensitivity (for example, through theatrical activities, trainings).

A special role for the development of gender competence of older preschoolers was given to common events for the pedagogical team of the preschool educational institution, namely the following events were held: lecture "Gender stereotypes in society"; master class "Ways of developing gender identity of senior preschoolers", "Introducing a gender approach into the educational process of educational institutions", consultations on the formation of the "Self-concept" of older preschoolers; for parents: individual conversations, consultations, parent meetings, during which educators informed them about the results of identifying children's gender competence, informed about the content, forms and methods that stimulated the development of a child's gender competence.

After the formative experiment, the final cuts were evaluated and analyzed according to the defined criteria and indicators of the control and experimental groups. Quantitative indicators of the experimental groups of older preschoolers proved the positive dynamics of the levels of their gender sociability. The difference in the obtained results in the control and experimental groups was significant and became a consequence of the introduction of a gender approach into the educational process of a preschool educational institution, implemented by preschool teachers and parents and the developed methods and forms of socialization of older preschool children, but not the influence of random factors.

Experimental and control groups with the same number of $N_e = N_c = 90$ took part in the pedagogical experiment to check gender sociability of older preschool children. According to the results of the conducted research, it was found that 31.1% of older preschoolers achieved a sufficient level of gender sociability (Table 1).

Table 1.
Indicators of the comparative experiment in the experimental group.

Levels	Start of the experiment	Final of the experiment	Dynamics of changes (+/–)
Sufficient level	10 persons (11.1%)	28 persons (31.1%)	+18 persons (+20.0%)
Medium level	44 persons (48.9%)	44 persons (48.9%)	–
Low level	36 persons (40.0%)	18 persons (20.0%)	–18 persons (–20.0%)

Source: Obtained by the authors.

The number of children with a medium level of gender sociability increased to 48.9%. The number of children with a low level of gender sociability changed significantly (up to 20%). A different situation was observed in the control group (Table 2), in which only 14.5% reached a sufficient level of gender sociability, a medium level was in 52.2% of children. A low level of gender sociability of 33.3% was recorded in a significant number of children. In general, the results of the experimental research confirmed that the implementation of the proposed pedagogical conditions, selected forms and methods of working with the children of older preschool age contributed to the formation of gender sociability of children of older preschool age. The justification for this conclusion was obtained from the statistical analysis of the sample given in Tables 1 and 2 using the t-statistic, since the volumes of independent samples $N_e = N_c = 90$ were more than 30 and, therefore, the sample means were normally distributed.

Table 2.
Indicators of the comparative experiment in the control group.

Levels	Start of the experiment	Final of the experiment	Dynamics of changes (+/–)
Sufficient level	9 persons (10.0%)	13 persons (14.5%)	+4 persons (+4.5%)
Medium level	45 persons (50.0%)	47 persons (52.2%)	+2 persons (+2.2%)
Low level	36 persons (40%)	30 persons (33.3%)	–6 persons (–6.7%)

Source: Obtained by the authors.

For the quantitative analysis of the state of gender sociability levels in the children, each level was referred to a certain (conditional) rating: low – "1", medium – "2", high – "3". For each studied group, the average value of the sociability level in this group was calculated according to the specified three-point rating system and the variance, serving as a measure of the grouping of the experimental data around the average value. Calculation was carried out according to the formulas:

– average value of samples:

$$x_c = \frac{1 \cdot n_1 + 2 \cdot n_2 + 3 \cdot n_3}{n_1 + n_2 + n_3},$$

where n_1, n_2, n_3 are the numbers of children of the studied group referred to low, medium and high levels of success;

– variance:

$$D = \frac{(1 - x_c)^2 \cdot n_1 + (2 - x_c)^2 \cdot n_2 + (3 - x_c)^2 \cdot n_3}{n_1 + n_2 + n_3}.$$

To find out whether the differences in the average values of the levels in the experimental and control groups before and after the formative research and experimental work are significant or random, the values of the t-statistic were calculated:

$$t = \frac{|x_{c,e} - x_{c,c}|}{\sqrt{\dfrac{D_e}{N_e} + \dfrac{D_c}{N_c}}},$$

where $x_{c,e}$, $x_{c,c}$ are the average values of the levels in the experimental and control groups; D_e, D_c – their corresponding variances.

Results of the calculations were given in Table 3.

Table 3.
Indicators of the comparative experiment in the control and experimental groups.

Levels	indicators	Control group ($N_c = 90$)				Experimental group ($N_e = 90$)			
		Beginning cut		Final cut		Beginning cut		Final cut	
		n_i	%	n_i	%	n_i	%	n_i	%
Low	1	36	40.0%	30	33.33%	36	40.0%	18	20.0%
Medium	2	45	50.0%	47	52.22%	44	48.89%	44	48.9%
Sufficient	3	9	10.0%	13	14.44%	10	11.11%	28	31.11%
average value of the level		1.70		1.81		1.71		2.11	
variance		0.410		0.442		0.428		0.499	
t-statistic		$t_{CG\text{-}EG,before}$ = 0.115		$t_{CG,before\text{-}after}$ = 1.142		$t_{EG,before\text{-}after}$ = 3.943		$t_{CG\text{-}EG,after}$ = 4.091	

Source: Obtained by the authors.

For a 99-percent probability of the significance of the conclusions about the nature of the differences in the average values of the studied levels in the control and experimental groups (or in each of the groups before and after the experiment), the critical value of the t-statistic t_{cr}=2,5576. Accordingly, the differences of the compared levels were considered random if $t < t_{cr}$, or significant if $t > t_{cr}$. Analysis of Table 3 showed that the differences in the average values of the levels of the control and experimental groups before the beginning of the experiment (1.70 and 1.71, respectively) were insignificant ($t_{CG\text{-}EG,before}$ = 0.115 $< t_{cr}$), which indicated the equivalence of the compared groups. The final cut (after conducting the experiment) showed that the average value of the level in the control group increased insignificantly (1.81 > 1.70; $t_{CG,before\text{-}after}$ =1.142 $< t_{cr}$), while in the experimental group $x_{c,e}$ increased by 23.4% (2.11 > 1.71), and this increase was not random ($t_{EG,before\text{-}after}$ = 3,943 $> t_{cr}$). This allowed us to affirm the reliability of the conclusion regarding the efficiency of the method of forming gender sociability of older preschool children described in the paper.

Conclusions

Analysis of the results of theoretical and experimental research showed the prospects for the implementation of the purpose and goals of the research, the dynamics of the results of the efficiency of the used forms and methods of forming gender sociability of the children of older preschool age in the educational process of a preschool educational institution.

In the conditions of the research, appropriate pedagogical conditions (organization of an effective subject-playing area of the group for meaningful enriching the experience of gender communication in the children's team;

stimulation of the interaction of different gender subjects in a single social-and-developmental educational environment of a preschool educational institution; presence of positive incentives for interaction in a mixed-gender group as a factor in the formation of a child's gender competence) were determined. It was proven that only the comprehensive provision of these pedagogical conditions could contribute to solving the problem of the formation of gender sociability of older preschoolers.

Based on the results of the ascertainment experiment, it was found that the majority of respondents were at the medium (48.9% – EG, 50% – CG) and low (40% – EG, 40% – CG) levels of gender sociability, only 9.1% and 10% (EG and CG, respectively) reached a sufficient level, which testified about the low level of knowledge of the preschool teachers and parents on the issues of the formation of gender sociability of older preschoolers.

According to the results of the comparative analysis, it was found that after the formative experiment in the experimental group, 31.1% of older preschoolers achieved a sufficient level of gender sociability. The number of children with a medium level of gender sociability increased to 48.9%. The number of children with a low level of gender sociability changed significantly (up to 20%), which showed positive dynamics in the achieved level in formation of gender sociability.

A different situation was observed in the control group, in which only 14.5% of children reached a sufficient level of gender sociability, a medium level was in 52.2% of respondents. A low level of gender sociability of 33.3% was recorded in a significant number of children.

Results of the conducted research confirmed the originality, efficiency and possibility of

implementing proposed forms and methods in working with the children of older preschool age on the basis of a gender approach and purposeful information of preschool teachers and parents with the principles of gender socialization.

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Strengthening the professional training of staff in EU higher education

Посилення професійної підготовки кадрів у вищій освіті ЄС

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Abstract

The article reveals the most relevant and important for developing world societies to the professional training of personnel in the EU countries in the educational space. The methodological principles of the research are leading provisions of the theory of scientific knowledge; general scientific principles of historicism, systematicity, and scientificity; conceptual provisions of pedagogical, psychological, and sociological sciences; ideas of comparative research experience; and philosophical and pedagogical ideas of the development of modern education. The principles on which the reform of higher education is based are described and the main trends of the structure of world higher education are clarified. The significance of developing educational information networks in the professional training of personnel in the educational space of higher education institutions in the EU countries is shown. The

Анотація

У статті розкрито найбільш актуальні і важливі для розвитку світового суспільства шляхи професійної підготовки кадрів в країнах ЄС в освітньому просторі. Методологічними засадами дослідження є: провідні положення теорії наукового пізнання; загальнонаукові принципи історизму, системності, науковості; концептуальні положення педагогічних, психологічних, соціологічних наук; ідеї досвіду порівняльних досліджень; філософсько-педагогічні ідеї розвитку сучасної освіти. Розписано засади на яких ґрунтується реформування вищої освіти та з'ясовано основні тенденції структури світової вищої освіти. Показано вагомість розвитку інформаційних освітянських мереж у професійній підготовці кадрів в освітньому просторі закладів вищої освіти в країнах ЄС. Висвітлено основні завдання організації навчальних закладів вищої освіти країн світу. Проведене експериментальне дослідження

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main tasks of the organization of educational institutions in the world's countries are highlighted. The conducted experimental research is aimed at researching: the effectiveness of professional training of personnel in the educational space; determination of suitability for employment in EU countries; and effectiveness of continuous professional training at the workplace in EU countries. The conclusions summarize ways of professional training of personnel in the EU countries in the educational space of universities.

Keywords: professional training, EU countries, higher education institutions, continuous professional training, employment in EU countries.

спрямоване на дослідження: результативності професійної підготовки кадрів в освітньому просторі закладів вищої освіти; визначення придатності до працевлаштування в країнах ЄС; результативності безперервного професійного навчання на робочому місці в країнах ЄС. У висновках підсумовано шляхи професійної підготовки кадрів у країнах ЄС в освітньому просторі ЗВО.

Ключові слова: професійна підготовка, країни ЄС, заклади вищої освіти, безперервне професійне навчання, працевлаштування в країнах ЄС.

Introduction

The training of specialists who can think creatively, specialists of a new quality, who will be able to make non-standard decisions, quickly navigate in the saturated modern space of information, develop and learn throughout life – is becoming a requirement of the time (Marrero-Rodríguez & Stendardi, 2023).

The methodological principles of the research are leading provisions of the theory of scientific knowledge; general scientific principles of historicism, systematicity, and scientificity; conceptual provisions of pedagogical, psychological, and sociological sciences; ideas of comparative research experience; and philosophical and pedagogical ideas of the development of modern education.

The modernization of European education is inextricably linked with the development of the entire society at the current stage, the characteristic features of which are the updating of the content of education, its structure, the introduction of the credit transfer system into the educational process, and the consistent introduction of innovative technologies into the educational space. The system of higher education and its modernization should be aimed at the education of the individual, and the development of a new generation of people who live by humanistic laws and are aware of universal human values. Modern education faces universal goals: to ensure its competitiveness on the world market, to reach a new level of European education quality, reforming it based on continuity, openness, mobility, democratization, and equal access to education, while preserving the authenticity of national education (Sysoieva & Krystopchuk, 2012).

Within the framework of the European Higher Education Area, to increase the competitiveness of education, the position is taken that higher education should be responsible to society and should undertake obligations to support and initiate the intellectual progress of the world economy. It is education that is built on European traditions that will contribute to continuous education, personality development, and social expediency (Egido Gálvez, 2019).

The study of international experience is extremely important, since the lack of a clear national strategy for the internationalization of education leads to a low volume of export of educational services, unsatisfactory rates of development of international educational programs and, accordingly, complicates the effective integration of domestic education into the European and global educational space.

Therefore, the processes of Ukraine's integration into the European educational and economic space, the socio-economic significance of establishing the interaction of higher education with the labor market, the importance of studying the experience of the European Union on this issue, as well as the insufficient theoretical development of the problem determined the relevance of the topic of the article.

Literature review

Many publications analyze the achievements of higher education and outline ways to overcome

the problems of forming a high-quality European educational space. The publication, which contains articles by more than 50 researchers of the Bologna Process: "The European Higher Education Area: Between Critical Reflections and Future Policies", presents the main aspects of higher education: teaching, learning, financing, and management; the process of its internationalization; ensuring the quality of educational space; involvement of higher education seekers in today's educational space; justice and social dimension of the higher education system; superiority and variety of missions; the relationship between education, research, and innovation; the impact of the Bologna process on the European area of higher education and beyond (Curaj et al., 2015).

In the research of Bergan (2019), the progress of the educational space in the present is shown and the main difficulties faced by the higher education system in Europe are highlighted.

The stages of the development of the European area of higher education are analyzed, and the main ways of reforming the world education system are shown, but it is noted that in recent years, as a result of increasing difficulties in the management of the educational sector, the optimism of a person regarding the fulfillment of his obligations has decreased (Zaskalieta, 2019). H. Khoruzhyi (2016) pays attention to the organization and internationalization of lifelong learning, personnel, and institutional provision, considers the content and essence of national and European higher education policy, analyzes historical aspects of the activities of European institutions, educational projects, and strategies of the European Union aimed at modernization higher school.

S. Cankaya, T. Kutlu, & E. Cebeci (2015) singled out and characterized the stages of development of the strategy of the European Union in the field of education, and also showed the need to ensure the quality of education at the current stage of the educational process. Yu. Zayachuk (2015), agreeing with the previous research, revealed the problem of implementation of educational management reforms and structural reforms within the framework of the modern European space. The research A. Dzhurylo (2018), based on the experience of European countries, regarding the distribution of powers between those entities that manage the general education system.

The methodological recommendations developed by the team of authors (Divinska et al.,

2018) include the best foreign practices and relate to the improvement of the educational process of higher education institutions of education: development of standards and professional profiles of scientific and pedagogical workers, prospects of using European educational practices in the activities of higher education institutions, career growth of scientific and pedagogical workers, determination of the effectiveness of models of professional development of students of higher education, based on the competence approach of development of research students, foreign language, valuable competences.

S. Zaskalieta (2019) examines the conceptual foundations and directs the entire scientific search for effective ways of developing the higher education system, proving that in the countries of the European space, the general trend of professional training of specialists is the internal quality assurance of education, analyzes the ways of ensuring the quality of higher education, which include: the availability of the necessary resources; in the higher education sector, monitoring the quality of educational activities and the quality of training at all levels and stages of specialist training.

L. Pukhovska, A. Vornachev, & S. Leu (2015) prepared a manual based on the materials of comparative studies of the European Center for the Development of Vocational Education and Training, where they used European periodicals, monographic studies and characterized the trends in the professional development of non-specialists and the current state of the educational space in the countries of the European Union.

Therefore, many publications analyze the achievements of higher education and outline ways to overcome the problems of forming a high-quality European educational space. However, the problem of professional training of personnel in the educational space of higher education institutions in the EU countries is relevant and important today for the development of world society.

Despite a significant number of studies on the development of educational systems in the member states of the European Union, the study of the European experience regarding the interaction of higher education has not yet become the subject of a separate, coherent scientific study, in particular, the conditions, stimulating factors and mechanisms for regulating the interaction of higher education in the European Union have not been disclosed.

The relevance of the study of the selected problem is also strengthened by the need to resolve the contradictions regarding the development of the interaction of higher education with the labor market in Ukraine, namely, between:

–   the need to balance the interaction of higher education with the domestic labor market and the imperfection of mechanisms for regulating this process at different levels (state, higher education, labor market);
–   the quantitative and qualitative discrepancy between the professional training of specialists in the field of higher education and their employment in the domestic labor market;
–   the socio-economic significance of the interaction of higher education with the domestic labor market and the lack of an effective model of harmonization of this interaction;
–   the presence of European experience of higher education and the absence of substantiated directions for its practical application in Ukraine.

Therefore, the study of the experience of the European Union on this issue is important for the development of strategies for the modernization of higher education in Ukraine. Under these circumstances, the study of professional training of personnel in higher education in the European Union is of particular scientific interest, where mechanisms and models of state influence on solving economic and social problems are being fundamentally rethought. Changes in European policy are aimed at mitigating and overcoming the economic and financial crisis. Therefore, modernization of higher education is important for creating conditions for building a new Europe with an economy based on knowledge.

The aim of the study. To reveal the most relevant and important for the development of world society ways of professional training of personnel in the EU countries in the educational space of higher education institutions.

Methodology

The methodological principles of the research are leading provisions of the theory of scientific knowledge; general scientific principles of historicism, systematicity, and scientificity; conceptual provisions of pedagogical, psychological, and sociological sciences; ideas of comparative research experience based on the simultaneous study of pedagogical, socio-cultural and economic phenomena; philosophical and pedagogical ideas of the development of modern education.

To realize the goal, the following general scientific research methods were used:

–   *theoretical* – study and study of normative sources, methodological literature, psychological and pedagogical literature, philosophical literature, scientific work of foreign and domestic scientists on the problem of professional training of personnel in the EU countries in the educational space of higher education institutions, the peculiarities of their work in today's conditions; for the semantic load and delineation of the conceptual boundaries of the studied phenomenon;
–   *logical-systemic analysis, analogy, classification, generalization of practical and scientific-theoretical data, deduction, induction* – to determine the most relevant and important for the development of world society ways of professional training of personnel in the EU countries in the educational space of higher education institutions;
–   *comparison of the obtained data* – to clarify the dependencies and cause-and-effect relationships of professional training of personnel in the EU countries in the educational space of higher education institutions;
–   *empirical methods and pedagogical experiments* – questionnaires, observations – to find out and verify the use of the operation of the most relevant and important for the development of world society ways of professional training of personnel in the EU countries in the educational space of higher education institutions; quantitative and qualitative analysis of research results using methods (non-parametric Pearson χ^2 test – for verification of experimental results) of mathematical statistics.

Experimental research is aimed at researching:

–   effectiveness of professional training of personnel in the educational space of higher education institutions;
–   determination of suitability for employment in EU countries;
–   effectiveness of continuous professional training at the workplace in EU countries.

Recommendations for the effectiveness of professional training of personnel in the educational space of higher education institutions and continuous professional training at the workplace in EU countries have been developed The strategic tasks of EU member states in the field of professional training of personnel in the educational space of higher education institutions are outlined.

Research relies heavily on the accuracy and reliability of the data. In research work, the quality of data collection and analysis not only adds weight to the research but also contributes to the formation of sound conclusions, which is the key to academic success.

The following digital data collection tools were useful in the study:

- Google Forms – a simple tool for creating surveys that allows you to collect data from respondents, create different types of questions, and collect answers in spreadsheets.
- SurveyMonkey – a modern survey tool that offers a wide range of customization options and analytical tools for analyzing the collected data.
- JSTOR, Google Scholar, and other academic search engines provide access to scholarly articles, books, and other academic resources that may be useful for literature review and theoretical data collection.
- Zotero or Mendeley – bibliography management programs that help organize research materials, store references, and format bibliographies and citations according to different citation styles.
- Microsoft Excel or Google Sheets – spreadsheets are useful for organizing and analyzing collected data when working with quantitative data.
- SPSS, R, or Python for more advanced data analysis, statistical analysis, and processing of volumes of data.

The reliability and validity of the obtained results, and the objectivity of their assessment were ensured by the methodological soundness of the initial positions and the qualitative mechanism for evaluating the quality under study, the use of a complex of complementary research methods, and the involvement of a group of respondents from a higher educational institution in the analysis of its results.

To assess the homogeneity of experimental and control data, statistical processing was performed using MS Excel and SPSS (Statistical Package for Social Science).

The total sample size is 70 subjects, among whom are students of physical education. When forming the sample, the criteria of meaningfulness, representativeness, and equivalence were taken into account. The sample was formed by random selection using the technical procedure for calculating the selection step.

The results of the experimental study confirmed the applicability, optimality, and effectiveness of the proposed pedagogical conditions for the formation of an environmental culture of an ecologist in the process of professional training.

Results and discussion

1. The principles underlying the reform of higher education.

The reform of higher education, research, and determination of the most relevant and important for the development of world society ways of professional training of personnel in the EU countries in the educational space of higher education institutions is based on the following principles:

1) the national idea of higher education, multiplication, and preservation of educational national traditions of each country. The higher education of each country is called upon to educate a citizen of the state, as well as to promote a harmoniously developed personality for which the need to improve the general educational and professional level and fundamental knowledge is associated with the strengthening of one's state;
2) the development of higher education should be subject to the laws of the market economy. At the same time, it is necessary to take into account important factors – political, social, social consciousness, spiritual life, moral and psychological values, and culture. Many problems that have accumulated in the system of higher education are primarily related to the imbalance of the complex of the specified factors of social transformations;
3) in the context of trends in the development of educational systems: the world, in general, and European, in particular, the development of higher education should be considered.

For high-quality professional training of personnel in the educational space in any country, it is necessary to bring the regulatory and legislative framework of higher education up to global requirements, organize the list of specialties, structure the components and the entire system of higher education accordingly, constantly review the content of higher education; to ensure higher education access to international information systems and to improve the informatization. It is necessary to constantly fill the content of education with the latest materials, not only focus on market specialties and constantly introduce modern educational technologies with a high level of informatization in higher education (Piolli & Sala, 2022).

2. The main trends in the structure of world higher education.

The structure of higher education on a global scale is extremely diverse, but there are two dominant trends:

1) a single system or unitary higher education is provided by universities or similar institutions that offer both professionally oriented programs of different levels and durations, as well as general academic degrees. In Austria, Spain, Italy, Sweden, and Finland, this is exactly how education is. In a separate group, some scientists single out countries with "integrated" universities (Spain and Sweden), which include specialized higher educational institutions and secondary schools;
2) a double or binary system with a traditional university sector, the basis of which is the concept of a university, on which it is based, as well as a separate sector of higher education – non-university, which has a clearly defined structure. This system of education – the binary system of higher education – exists in most of the developed countries of the world (Belgium, Greece, Denmark, Norway, Switzerland, the Netherlands, Germany, France, Great Britain, Ireland, and several other countries of the world), where there are numerous specialized institutions along with university sector that educates a large part of the youth (Topuzov et al., 2023).

For global higher education, the tendency to expand and improve "short and professionalized" higher education is quite effective. An example is the recently created "university institutes" in France, where thorough education is obtained under the condition of good organization of the educational process and, as a result, graduates easily find work. Along with the development of a strong non-university higher education sector, trends towards a single comprehensive university system have contributed to a broader interpretation of the term "university" – an institution with coherence between learning, teaching, and student success in it, intensive collaboration, where individual learning is given great attention, which differs from the definition traditionally used of a continental European university. Today, this tendency is observed in the universities of those countries that managed to immerse themselves the most deeply in the process of creating an information society (Ricardo-Barreto, et al., 2020).

3. The main tasks of the organization of educational institutions of higher education in the countries of the world.

Until recently, poorly structured higher education systems performed a fairly limited number of tasks related to conducting technological and scientific research with the simultaneous training of scientists, strengthening and preserving the state structures of the country, as well as providing highly qualified specialists in the country's economy. Institutions of higher education in most countries of the world performed these tasks by using disciplinary training: mono- (or malo-). Vocational training was transferred to workplaces if higher education was general (Japan is an example) (Moya et al., 2020).

Currently, the main tasks of organizing the educational process of higher education institutions, which, in parallel with the university sector, have professionally oriented training programs, are almost the same in most countries:

– to offer economically beneficial and professionally oriented types of education to meet the needs of the labor market;
– meet the needs of the growing number of entrants without a significant increase in government spending on higher education;
– to propose programs in which applied research will be partially used, and they will be primarily focused on teaching using innovative methods; improvement, and renewal of already existing professionally oriented education.

With the growing diversification of higher education structures in professional training,

there is a parallel diversification of qualifications and degrees in the educational space of higher education institutions, which are issued in EU countries by various educational institutions.

There is a traditional differentiation:

– between a structure with a fairly long academically integrated study – of a "continental European" degree;
– between the structure with a shorter duration of study – "English-American" university degree for obtaining the first degree and the variety of post-baccalaureate studies based partly on the modular system.

In some countries (e.g. Finland, Denmark, Portugal, and Italy) shorter cycle degree types are introduced into the national degree structure. In other countries (for example, in the Netherlands, and Germany), such a system is implemented along with the traditional tiered structure. There is also continuous diversification of qualifications in the non-university sector.

In certain professional areas, a large number of new programs have been introduced for obtaining a bachelor's degree, and several courses have been developed after obtaining a bachelor's degree. Courses can lead to double major degrees or national degrees. Educational institutions that do not have the right to master's programs – these are non-university-type institutions – can cooperate at their own will with foreign institutions that legally have such a right. The specified educational institutions thus get the opportunity to offer international master's programs to students (Sysoieva & Krystopchuk, 2012).

4. Development of educational information networks in the professional training of personnel in the educational space of higher education institutions in EU countries.

Speaking about the international experience of the development of informational educational networks, its problems, and advantages, we should note the activities of international organizations such as UNICEF and UNESCO, which take an active part in the processes of education renewal, aim to consider and solve the problems of youth development, and also direct their efforts to satisfaction of human needs in the modern world.

UNICEF – United Nations Children's Fund and UNESCO – United Nations Educational,

Scientific and Cultural Organization are organizations whose activities are prioritized in the field of lifelong learning, healthy lifestyle, and human development; these are organizations that implement the idea of "free dissemination of information" in their work and provide open access to it. Each organization during its existence has created its own information network to provide wide circles of those who are interested in this problem and for the needs of educators.

In connection with the need for the development and application of the communication and information sphere, UNESCO has created its own infrastructure, the spectrum of which covers the educational sector as a leading one in solving the organization's global tasks (Morosini et al., 2023).

5. Subordinate the main substructures of the UNICEF information network.

Let's highlight the subordinate main substructures of the UNICEF information network:

1. Communication and Information Sector, which consists of departments:

– Information Society department;
– Department of Freedom of Expression, Democracy, and Peace;
– department of communication development. The sector develops in three strategic directions:
– promotion of free dissemination of ideas and universal information;
– promotion of pluralism and independence of the media;
– promotion of modernization of information infrastructures.

2. The Education Sector with its infrastructure, covers a wide range of problems in the field of education.

6. The Educational Information Network in the European Community is one of the most famous international educational networks.

EURYDICE – The Educational Information Network in the European Community is one of the most famous international educational information networks. This educational network, created by the European Union, pays special attention to education, its directions, and development. The European Union, giving

priority to the educational network and taking into account the diversity of the educational systems of European countries, believes that such isolated diversity is cultural wealth for each country (Bolaños, 2021).

The EURYDICE network, an educational information network, was created and works for a better understanding of the identity of each country, and its peculiarities and leads to the creation of a European mutual space, fruitful cooperation, which is possible only through the dissemination and possession of the necessary information about the aspects of education systems (Sysoieva & Krystopchuk, 2012).

The impetus for improving the professional training of personnel in the educational space of higher education institutions in the EU countries is the fact that for all European countries, the ever-increasing emigration of citizens has become a significant problem in recent years (Sysoieva & Krystopchuk, 2012).

7. Experimental study of the effectiveness of professional training of personnel in the educational space of higher education institutions and determination of suitability for employment in EU countries.

In our time, great importance is attached to suitability for employment, therefore the term "employability" is becoming more popular – in the content of which is placed to solve the production situation – possession of educational approaches to obtaining knowledge, a set of skills, abilities, as well as the ability for professional development and the desire for continuous improvement of knowledge.

During the experimental study, employability competencies were singled out, that is, general competencies, which include:

- the ability to perform specific tasks,
- skill to work in a group,
- equal of self-organization,
- knowledge of information technologies
- communication skills and literacy, etc.

A study was led by European proprietors, which proved that a specialist's gaining a proper place in the labor market depends on:

- services that show the level of suitability for employment – 78%;

- positive attitude to the profession and work – 72%;
- production practice, relevant practical experience – 54%;
- directly acquired qualification or education – 41%;
- success rate in the organization of higher education – 28%;
- standing of the graduated institution – 8%.

Similar studies of the effectiveness of professional training of personnel in the educational space of higher education institutions and the determination of suitability for employment in EU countries were conducted within the framework of the European HEGESCO project.

Respondents named the following factors that increase the chances of employment:

- availability and experience of contacts with the professional environment – 25%;
- intellectual capital of the individual – 16%;
- grade level (the average grade was over 4.0 on a five-point scale) – 13%;
- the equal of human social growth – 13%;
- readiness of higher education in the individual – 11%;
- the specialist has a driver's license – 11%;
- practice of a person in skilled work – 9%.

Thanks to the Bologna process, an alternative method – "output orientation" – is widely promoted in the European educational space and implemented. That is, the starting point and the basis of the process of training specialists and creating an educational program is the model of a specialist who will be needed in the labor market, a professional in his field, which should ensure his high suitability for employment. At the initial stage of acquiring a profession, under this approach, employers, stakeholders, professional organizations, graduates, etc., and not higher education institutions, should play the main role. The paradigm of student-centered learning contributes to increasing the transparency of educational programs, and their comprehensibility and is aimed at increasing the chances of graduates to get a job, which in the European area of higher education is one of the main goals of creating innovative development of the world.

Nowadays, every person senses an absence of certain skills and information and needs to update them regularly. In EU countries, the principle of "lifelong education" applies. Not only

professionally successful specialists, but also unemployed people, who have become unemployed due to the lack of necessary qualifications or the impossibility of employment, seek professional retraining for effective professional training and professional development. Studies conducted by sociologists show that in modern conditions, the number of specialists who acquire new professions and qualifications for them and continue their education is increasing. Let's name the multifaceted reasons:

− professional knowledge acquired by a person quickly becomes obsolete;
− once popular professions are now becoming undemanding;
− a person loses interest in the chosen profession;
− a specialist seeks to build a career and improve professional knowledge;
− a person, with the help of obtaining an additional qualification or specialty, increases his competitiveness.

European researchers, studying the experience of implementing the concept of "Learning during life", concluded: that it is impossible to form an agreed single universal definition of this concept, which would include conceptual and operational components. The meaning of this term may change over time. Taking this into account, international organizations have developed different approaches to the definition of "lifelong learning" by the goals of their activities and direction. For example, "Learning throughout life" is considered a key factor in preparing employees for the conditions of competition in the global economy, according to experts of the World Bank. "Lifelong learning" contributes to greater social unity, more equitable distribution of income, reduced crime, and increased people's ability to function fully as members of society.

The concept of "lifelong learning" has acquired a similar vision in the documents of the OECD – Organization for International Cooperation and Development, which emphasizes the need to find ways to develop economic potential through the increase of human capital, which should contribute to strengthening democracy in society and raising the standard of living. The OECD has the following main task: "determines the search for practical solutions to expand the educational opportunities of all people". The analyzed international organizations to the interpretation of the concept of "lifelong learning" formulated an approach characterized by researchers as "pragmatic" or "instrumental", which

emphasizes the role of education in the acquisition of results, for an individual and for society in general, which has an economic expression.

8. An experimental study of the effectiveness of professional training in the educational space of higher education institutions and continuous professional training at the workplace in the EU countries.

European statistics on professional training of personnel in the conditions of integration into the world educational space take into account several terms: learning by doing, off-the-job training, on-the-job training, formal learning, informal learning, teacher in VET; trainer, open learning, profession development, etc. In recent years, the concept of "professional development" has been an important component in the professional training of personnel in the educational space of higher education institutions in EU countries and is interpreted as "actions aimed at improving professional activity." Professional development refers to special/special skills and general skills (team management or time management, negotiation skills, conflict management, communication, etc.). Professional development can take the form of self-study, formal education, consulting, conferences, coaching or mentoring, community practice, or technical assistance." (Stratan-Artyshkova et al., 2022).

The European Center for the Development of Vocational Education and Training conducted a study using CVTS4 data. One of them – "Learning at the workplace, in the process of work: successful stories of learning in Europe" – is aimed at revealing key achievements in professional training of personnel at the workplace, innovations, and areas, and successful solutions that require further development. All partners – governments, employers, social partners, public and professional organizations, education and training providers, and employees – must realize the responsibility for achieving "new skills for new jobs".

We were interested in the question "What forms of obtaining higher education in institutions of higher education and in-company training are used in EU countries?" Data from the Department for Business, Innovation, and Skills, CVTS4 are interesting.

On-the-job training is defined as professional training that is carried out in a normal work situation. It can be the only form of professional

training of personnel in the educational space of higher education institutions in the EU countries, or it can be combined with training outside the workplace.

A characteristic feature of continuous professional education in Europe is that: 62% of all production personnel in the EU countries are trained according to this indicator at the workplace.

This indicator was specified by the research data: the level of coverage of training at the workplace in medium and large organizations is significantly higher, making up 75% and 82%, respectively.

Analysis of studies by sector showed a similar picture: in the manufacturing sector, this indicator reaches 64%, and in the sector of on-the-job training services it is 61%.

In the EU countries, in the structure of continuous professional education, the transfer of professional knowledge is connected to the workplace, supplemented by a wide range of different forms in modern conditions:

− attending lectures, seminars, conferences, and trade fairs (51%);
− self-study (electronic) (30%);
− participation in quality and training cycles (18%);
− exchange, work rotation, study visits (18%), etc.

Effective forms of the effectiveness of professional training of personnel in the educational space of higher education institutions in EU countries and continuous professional training at the workplace are:

− rotation model, when an unemployed person replaces the workplace of an employee who is absent due to training,
− exchange programs with other enterprises for employees in conditions of a different corporate culture to gain work experience;
− independent training of employees.

European educational organizations and enterprises practice various forms of independent learning, which depends on the size of the organizations and enterprises themselves. The results of the effectiveness of professional training of personnel in the educational space of higher education institutions and continuous

professional training at the workplace in the EU countries are interesting.

− at small firms, and enterprises (10-49 employees) only 28% of employees use various forms of self-education;
− at large firms, and enterprises, the total number of workers included in self-education is increasing – 68% of respondents and more use various forms of self-education.

The obvious question, which is important for researching the effectiveness of professional training and continuous professional training at the workplace in the EU countries, was the following: vocational training at the workplace in the EU countries and which of them are priorities?"

The countdown to the formation of modern approaches to competencies, and personal skills during the effectiveness of professional training of personnel in the educational space of higher education institutions and continuous professional training at the workplace in the EU countries must be started in the field of European integration policy with an important event – the adoption in 2000 of the Memorandum, which included new basic skills among the priority tasks and approaches for all EU citizens, which constitutes a new educational paradigm, one of its central provisions.

As a result, the concept of new basic skills was formed, which reflects the completion of the stage of development of approaches to qualifications, competencies, and skills. As the researchers note, the new concept emphasizes an interdisciplinary approach and a wider application of knowledge and competencies in the educational space.

Such key competencies as:

− the ability to effectively use the potential of e-learning and information and communication technologies;
− ability to learn;
− entrepreneurial skills;
− communication in foreign languages;
− digital literacy, etc.

We will show Eurostat data to confirm this provision regarding the effectiveness of professional training of personnel in the educational space of higher education institutions and continuous professional training at the

workplace in the EU countries in terms of competencies and skills for the development of which various types and forms of on-the-job training are directed.

86% of respondents (the largest percentage of respondents) noted that priority is given to specific, practical, technical skills related to specific professional operations. A large discrepancy was found when comparing the data on the direction of training on specific competencies and skills between large, medium, and small firms or enterprises. In particular, it is:

− work with clients: 36% – in the production sector and 62% – in the service sector;
− teamwork (joint work, business relations with colleagues, etc.): 49% – in the production sector and 62% – in the service sector;
− management skills (planning of personnel activities, leadership and management of personnel, etc.): 86% – in large firms or enterprises and 48% – in small ones;
− office management skills (invoicing skills, time management, etc.): 58% – at large firms and enterprises and 28% – at small ones;
− general skills in the field of information technologies (processing of collected data, use of a computer, the Internet, an electronic magazine, etc.): 60% – at large enterprises with 500 or more employees and 29% – at small firms, enterprises with 10– 49 employees;
− professional skills in the field of information technologies (special understanding or knowledge about the development of complex programs, web pages, etc.): 42% – in large enterprises and 11% – in small enterprises.

The results are interesting from the perspective of the effectiveness of professional training in the educational space and continuous professional training at the workplace in EU countries.

Respondents distribute the importance of professional categories in this way:

− teamwork – 83%;
− specific, practical, technical competencies, skills –81%;
− work with clients – 80%;
− solving problems – 72%;
− management – 71%;
− General level IT – 63%, etc.

The significant percentage increase of all indicators attracts attention. Thus, the indicators from the point of view of organizational development of personality differ almost twofold concerning prospective and current general informational competencies and skills.

For categories of workers with low qualifications, mastering information technologies expands access to training. This is important when the minimum level of qualifications demanded in the labor market of employees has risen to the average level of a specialist, and then many workers are in a vulnerable position, especially older age groups because the low level of qualifications prevents them from participating in in-company training programs, which are designed for high starting the level of participants in the educational process (Pukhovska et al., 2015).

9. Recommendations for the effectiveness of professional training of personnel in the educational space of higher education institutions and continuous professional training at the workplace in EU countries.

Valuable recommendations for the effectiveness of professional training and continuous professional training at the workplace in the EU countries contain the Recommendations of the International Labor Organization, according to which the optimal educational policy should include such main elements as:

− high-quality and up-to-date professional training of personnel in the educational space;
− participation and interaction with social partners;
− branch approaches;
− forecasting the demand for professional skills;
− availability of information on the functioning of employment services and the labor market;
− funding of professional education and training;
− expanded access to professional training;
− assessment of the effectiveness of the implemented measures (Costa & Santana, 2021).

Analysis of the experience of forecasting the effectiveness of professional training in the educational space of higher education institutions and continuous professional training at the workplace in EU countries shows that it is worth focusing efforts on the ability to learn, and the

development of adaptive basic and end-to-end competencies.

There is a growing demand for atypical competencies and personal skills of an analytical nature, in particular, communication, focus on solving problems, the ability to work in a team, creativity, as well as entrepreneurial competencies that help companies to respond quickly to changing conditions, and employees to remain in demand. The demand for standardized skills is falling, this is due to the automation of all branches of production, etc. (Pukhovska et al., 2015).

10. **Strategic tasks of EU member states in the field of professional training of personnel in the educational space of higher education institutions.**

The European Union has defined the following as the strategic central tasks of the activities of the EU countries in the field of professional training of personnel in the educational space of higher education institutions (Khoruzhyi, 2016):

1) support of higher education institutions regarding the mobility of higher education seekers and professors and teaching staff, to systematically include in curricula measures that inhibit exchange and international cooperation, and to eliminate unnecessary barriers that do not bring benefits to the professional training of personnel in the educational space of higher education institutions education;
2) combination of qualifications with the European qualification framework;
3) recognition of supplements to diplomas of higher education institutions obtained abroad and re-enrollment of ECTS credits;
4) improvement for researchers, teachers, students, access, chances, and employment conditions for careers from other countries, for example, facilitation of obtaining Schengen visas, etc.
5) use of knowledge, including in the interests of excellence and regional development, a combination of research, higher education, and economics. The transition to innovation led to new forms of cooperation between research institutes, enterprises, and institutions of higher education, and contributed to the strengthening of knowledge flows. However, the ability of higher education institutions to integrate the results of innovation and research into education remains low;

6) overcoming existing barriers between the economy, research, and education, requires intensive interaction between the participants of this process and entrepreneurial skills.

Conclusions

The most relevant and important for the development of world society ways of professional training of personnel in the EU countries have been revealed.

The principles on which the reform of higher education is based are described, and the main trends of the structure of world higher education are clarified.

The main tasks of the organization of educational institutions of the world are outlined. The significance of the development of educational information networks in the professional training of personnel in the educational space of higher education institutions in the EU countries is shown.

The importance and necessity for the educational space of The Educational Information Network in the European Community – one of the most famous international educational networks is shown.

For strengthening the professional training of personnel in higher education in the EU, we have analyzed various aspects of the research issues: the principles on which the reform of higher education; the main trends in the structure of world higher education; the main tasks of the organization of educational institutions of higher education in the countries of the world; development of educational information networks in the professional training of personnel in the educational space of higher education institutions in EU countries; main substructures of the UNICEF information network; the educational information network in the European community is one of the most famous international educational networks.

Experimentally verified the effectiveness of professional training of personnel in the educational space of higher education institutions and determination of suitability for employment in EU countries.

Submitted recommendations for the effectiveness of professional training of

personnel in the educational space of higher education institutions and continuous professional training at the workplace in EU countries.

Based on the study of the problem of strengthening the professional training of personnel in higher education in the EU, we highlighted valuable recommendations regarding the effectiveness of professional training in the educational space of universities and continuous professional training at work in the EU countries: creating high-quality and modern professional training of personnel in the educational space; participation and interaction of social partners; branch approaches; forecasting the demand for professional skills; availability of information on the functioning of the employment service and the labor market; financing of professional education and training; expanded access to professional training.

The strategic tasks of EU member states in the field of professional training of personnel in the educational space of higher education institutions are outlined.

Further research will be aimed at developing adaptive basic and end-to-end competencies of future specialists.

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Ethical dimensions of leadership in the context of the Russian-Ukrainian war

Dimensiones éticas del liderazgo en el contexto de la guerra ruso-ucraniana

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Abstract

The purpose of the article is to study the ethical dimensions of leadership in the context of the Russian-Ukrainian war, to analyse the impact of value orientations on decision-making strategies. The methodology of this study is qualitative, which means the use of a qualitative approach based on the analysis of scientific literature and expert opinions. The application of this approach contributed to obtaining a general idea of the peculiarities of the implementation of ethical concepts and leadership based on the content analysis of scientific literature. The findings indicate that in the context of the Russian-Ukrainian war, ethical aspects of leadership manifest themselves as determining factors in the formation of decision-making strategies in organisations and management structures. The analysis of the influence of value orientations on these strategies shows that leaders who are

Resumen

El propósito del artículo es estudiar las dimensiones éticas del liderazgo en el contexto de la guerra ruso-ucraniana, analizar el impacto de las orientaciones de valores en las estrategias de toma de decisiones. La metodología de este estudio es cualitativa, lo que significa el uso de un enfoque cualitativo basado en el análisis de literatura científica y opiniones de expertos. La aplicación de este enfoque contribuyó a obtener una idea general de las peculiaridades de la aplicación de conceptos éticos y de liderazgo a partir del análisis de contenido de la literatura científica. Las conclusiones indican que, en el contexto de la guerra ruso-ucraniana, los aspectos éticos del liderazgo se manifiestan como factores determinantes en la formación de estrategias de toma de decisiones en las organizaciones y estructuras de gestión. El análisis de la influencia de las orientaciones de valores en estas estrategias

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focused on humanitarian values define strategies that are committed to caring for their subordinates. Their decisions reflect national values and patriotism. In the context of the Russian-Ukrainian war, it becomes obvious that ethical aspects of leadership determine decision-making strategies based on value orientations.

Keywords: leadership, Russian-Ukrainian war, ethical dimensions, decision-making, responsibility.

muestra que los líderes centrados en valores humanitarios definen estrategias comprometidas con el cuidado de sus subordinados. Sus decisiones reflejan los valores nacionales y el patriotismo. En el contexto de la guerra ruso-ucraniana, resulta evidente que los aspectos éticos del liderazgo determinan las estrategias de toma de decisiones basadas en las orientaciones de valores.

Palabras clave: liderazgo, guerra ruso-ucraniana, dimensiones éticas, toma de decisiones, responsabilidad.

Introduction

Research problema

Leadership is not only a question of strategies in military operations, but also an ethical issue concerning value orientations and moral business approaches in the context of the current geopolitical confrontation between Russia and Ukraine. In particular, this research article focuses on analysing the ethical dimensions of leadership in the context of the Russian-Ukrainian war and their impact on strategic decision-making.

The scientific issues of this article objectively examine the ethical aspects of leadership in the context of the Russian-Ukrainian war and their impact on decision-making strategies. The main research objective is to study and analyse the ethical dimensions that determine leadership behaviour during military conflicts. In particular, the article aims to reveal what values and moral beliefs influence leaders' strategies in making important strategic decisions in the extraordinary circumstances of a military conflict. Among the key aspects of the research is the analysis of leaders' value orientations, ethical principles, and moral obligations in the context of military activities (Rosenhead et al., 2019).

Research focus

The study is aimed at revealing the ethical aspects of leadership during a military conflict, taking into account the peculiarities of the value orientations that define leaders. The analysis of these ethical dimensions will be an important step in understanding the internal mechanism of leadership in wartime and will help to determine how these ethical principles influence decision-making in difficult situations. A special emphasis will be placed on how these ethical dimensions interact with strategic decision-making, as this is an important aspect in the context of military

conflict. Identifying these interrelationships can highlight ways in which leaders can avoid or resolve ethical dilemmas during warfare, contributing to more effective and morally sound strategies. This study also attempts to highlight the ethical aspects of leadership in acute conflict and can serve as a basis for developing a deeper understanding of leadership approaches in a military environment, contributing to the creation of future strategies and moral dilemmas.

Research aim and research questions

Therefore, the purpose of the article is to identify the ethical dimensions of leadership in the context of the Russian-Ukrainian war and to analyse the impact of value orientations on decision-making strategies. The realisation of this goal implies the identification of specific tasks: defining the general ethical aspects of leadership in the context of war and analysing values and describing their impact on decision-making strategies. Thus, the article also aims to determine how these ethical aspects interact with strategic decision-making, considering the specifics of military circumstances and geopolitical realities. This issue is important because it is aimed at understanding the internal mechanisms of leadership during wartime and can serve as a basis for developing effective strategies that consider ethical aspects, ensuring a high level of morality and responsibility in solving important tasks in a conflict.

Methodology

General background

This study aims to thoroughly examine and characterise the role of ethical principles in decision-making in the context of the Russian-Ukrainian war. The main objective is to provide an in-depth understanding of the key value

priorities and strategies used by contemporary Ukrainian managers in the face of uncertainty.

Type of research

The type of this work is a qualitative study, i.e., using a qualitative approach based on the study and processing of scientific literature and individual expert opinions, the main ethical principles for a leader in military conditions are characterised. This approach allowed us to get a general idea of the peculiarities of implementing ethical approaches in the leadership system.

The process of learning

The study was carried out systematically and in stages. First, the research problem was identified, and a literature review was conducted to identify the main approaches to characterising ethical leadership. After that, the influence of value orientations on decision-making was analysed (see Figure 1).

Figure 1.
The research process

1. Definition of the research problem	2. Review of scientific literature	3. Creating research results	4. Drawing conclusions
Thorough explanation of the relevance of the topic and focus of the study	Conducting a comprehensive review of articles and monographs to gain a general understanding of ethical leadership	The article analyses the basic values in the context of leadership development during the Russian-Ukrainian war, analyses the value orientations for decision-making in the crisis era	On the basis of the data obtained and the principle of generalisation, the following conclusions are drawn

Source: author's development

Simple procedure of materials and research methods

Thus, this study is based on a content analysis of the current literature. The main stages are presented in Table 1.

Table 1.
Step-by-step content analysis

Definition of the Study Area	At the beginning of the content analysis, a specific area of research was identified, i.e. the ethical dimensions of leadership in the context of the Russian-Ukrainian war.
Definitions of Key Terms	Key terms related to ethical leadership, the Russian-Ukrainian war, value orientations, and decision-making strategies are defined.
Selecting Sources	Sources for analysis are selected, such as scientific articles, books, dissertations, conference reports, and other scientific publications related to the selected topic.
Categorisation and Coding	The literature is systematically categorised to identify key themes and trends. Each source is coded according to the presence of specific aspects, such as ethical leadership, value orientations, impact on decision-making strategies, etc.
Content analysis	A detailed analysis of the content of each source is carried out, identifying trends, common patterns, and features that emerge from the research.
Interpretation and Summary of Results	The data is interpreted and combined to identify key findings.

Source: author's development

Therefore, the establishment of methodological foundations for analysing the ethical dimensions of leadership in the context of the Russian-Ukrainian war involved a systematic categorisation of terms related to the ethical principles of leadership in the context of military events: leadership, ethical dimensions, ethical leadership, the Russian-Ukrainian war, war, communication strategies, management principles, crises, Ukraine, morality, ethics, diplomacy, leadership theory.

At the initial stages of the search, attention was focused on the leading repositories for research in the field of ethics, leadership, international relations, and military aspects. A thorough analysis of the Web of Science, Google Scholar, Elsevier Scopus, WorlsCat, EbsCo, Index Copernicus databases was carried out using keywords to ensure full coverage.

The total number of results was 1154, which were processed using bibliographic software such as Reference Manager v11. Next, the titles and abstracts were analysed to exclude irrelevant results for our study, i.e., those not related to the ethical dimensions of leadership in military conflict. After these steps, 231 articles remained. Important details such as title, abstract, and publication data were transferred to Excel spreadsheets. Further sorting was based on the following exclusion criteria:

Current literature. Year of publication: 2012.

1. The abstract does not mention the methodology for studying the ethical dimensions of leadership in a military conflict.
2. There is no mention of elements of strategies for implementing ethical leadership.
3. The article does not deal with the influence of value orientations on the decision-making strategies of leaders in a military conflict.
4. The article is not written in English or Ukrainian.

This approach led to the identification of 56 main sources, which became the basis for further analysis of the ethical dimensions of leadership in the context of the Russian-Ukrainian war.

The following criteria for including literature were based on the following aspects:

1. Actuality and relevance. The literature should reflect modern approaches to leadership in military conflict and have a direct link to the ethical dimensions of leadership.
2. Practical application. The literature should have a practical dimension and take into account specific cases of the influence of ethical leadership on strategic decision-making during the Russian-Ukrainian war.
3. Consideration of Value Orientations. Papers that systematically examine the influence of different value orientations (humanitarian, national, ethical, etc.) on decision-making by leaders during military events.
4. Integration of Views. Works that reconcile different perspectives and theoretical approaches to analysing the impact of leadership on decision-making strategies in war.
5. Update and novelty.

Inclusion of the most recent works and studies that take into account the current state of the Russian-Ukrainian war and the ethical challenges it poses.

These criteria were important for the selection of scientific sources and literature that most closely correspond to the topic of ethical principles of leadership in war. Based on these criteria, the list of references was 34, which led to their further processing and obtaining results. Based on the systematisation and generalisation, it was possible to process the results and interpret them. In this paper the bibliographic analysis software was utilized. The software Microsoft Exel was employed for bibliographic analysis, which offers advanced features for organizing, managing, and analyzing academic references and citations. This software allows for the systematic collection of relevant literature on the ethical dimensions of leadership, particularly in the context of the Russian-Ukrainian war. Therefore, the methods of analysis and synthesis were important, based on which the influence of value orientations on decision-making strategies in wartime was considered.

Theoretical framework or literature review

Leadership in the public administration system is a peculiar process of organising activities of social groups to solve common problems based on the leader's authority, preference of his/her subordinates for his/her traits, and organisational conditions of work formed by these individuals. The importance of the leader plays a key role in organising the group's joint work and ensuring the effectiveness of its activities. The leader's

personality and style of behaviour determine the fate of any member of the group in many aspects. Problematic elements related to the phenomenon of leadership have been the subject of scientific consideration. The analysed works can be divided into two groups:

1. The first includes an analysis of leadership in difficult times of military threats;
2. The second group is primarily concerned with the development of leadership skills in the learning environment (taking into account current experience).

Based on this division, the most important studies used to formulate conclusions and generalisations can be noted.

Watters (2017) analysed the ethical aspects of decision-making during the Bosnian war, addressing the current challenges of decision-making under high pressure. His work explores the dynamics of leadership in complex situations and the challenges that arise in military conflicts. Padan (2017) examined the construction of "crisis events" in military settings, taking into account the Israeli perspective. Her work serves as a source for understanding the emergence and impact of crisis situations on leadership in the context of military operations. Mock & Ciloci (2022) focus on the role of resilient leadership in times of crisis, analysing the case of leading a nation during the Ukrainian conflict. They explore how leadership effectiveness can be ensured in the context of military confrontation. Perepelytsia (2021) explores the challenges of war and peace in the twenty-first century, especially in the context of the Russian-Ukrainian conflict. The work creates a theoretical framework for understanding the ethical aspects of war and their impact on leadership. Zachara-Szymańska (2023) analysed the international image of Volodymyr Zelenskyi and the international community's reaction to the Kremlin regime's aggression. Her work highlights the understanding of how the image of a leader can influence international politics in times of crisis. Kaltenbrunner and Simsa (2021) examine leadership in extreme conditions on the example of the European refugee crisis. The proposed study makes a significant contribution to understanding how different forms of leadership can influence management and problem-solving in complex situations. Lepskyi, Masiuk, Skvorets & Kudinov (2023) examine the phenomenon of decision-making mechanisms in wartime, based on the paradigms of the current Russian-Ukrainian war. The article examines what factors influence decision-making in crisis situations and how this is reflected in the conflict between Russia and Ukraine.

Xiong (2022) characterised the importance of artificial intelligence in supporting specific leadership strategies. Thus, Xiong (2022) investigated the interaction between artificial intelligence and leadership, exploring how artificial intelligence technologies affect the role and functions of leaders in the modern business environment. At the same time, Talajic, Kopal & Mršić (2022) described the main aspects of leadership's impact on business performance and developed an analytical concept of leadership that includes an assessment of leadership qualities and their impact on enterprise performance. Iskakova et al. (2023) studied modern philosophical concepts of educational trends, considered the interaction of crisis factors in the development of the educational process and the creation of a harmonious approach to education. Maciej (2023) focused on identifying the influence of futuristic philosophy and evolution in education, analysing information and communication technologies and strategies for gaining pedagogical experience in the context of personal consciousness. Zeng, Li & Li (2023) traced the importance of the learning aspect in the formation of leadership qualities. Sanakuiev (2022) explored the importance of knowledge in light of the challenges of globalisation, providing a philosophical and intellectual context for understanding how these aspects affect leadership decision-making in the modern world. Yolida & Marpaung (2023) examined the elements of leadership learning and how they can be applied in education. They open up new possibilities for improving pedagogical strategies and developing a deeper understanding of pedagogical challenges in light of current trends.

Therefore, the proposed studies make a multifaceted contribution to the understanding of various aspects of leadership in different contexts, including crisis situations, historical influences on political leadership, as well as factors that determine decision-making in wartime, training, and formation of modern ones. The proposed works provide a basis for analysing the ethical aspects of leadership in times of conflict, especially in the context of strategic decision-making and crisis response. At the same time, additional attention should be paid to the ethical challenges that leaders face during global crises, such as warfare. Similarly, the dilemma of the interaction between leadership and democratic forms will need to be rethought against the backdrop of Russian aggression in Ukraine. Also, the problems of ethical leadership

in an intercultural context will require further attention, as they are being redefined and understood in the new military realities.

Results

Ethical leadership is a crucial factor in preventing breaches of the code of ethics and deterring behaviour that could potentially tarnish an organisation's reputation in times of war. The conceptualisation of ethical leadership refers to the implementation and demonstration of normatively appropriate behaviour. This involves the active involvement of employees in decision-making processes through two-way communication at both the strategic and individual levels (Hyusein & Eyupoglu, 2023).

Ethical leadership theory is grounded in both moral managerial and individual aspects, underscoring the importance of cultivating wise ethical characteristics. The workplace environment fostered by an ethical leader revolves around ethical values, fair rewards, and communication systems tailored to transform organizational members (Brittain-Hale, 2023; Northouse, 2015). Recent studies and surveys have demonstrated the effectiveness of ethical leadership practices, particularly in challenging contexts like times of war. For example, statistics on employee engagement or organizational performance in companies led by ethical leaders during conflicts provide robust evidence supporting the positive impact of ethical leadership (Kubiv et al., 2020)). Ethical leaders are not only expected to impart ethical education but also to proactively build processes ensuring the comprehensive implementation of ethical practices throughout the organization. Incorporating data from recent studies can substantiate the claims made about the transformative effects of ethical leadership during wartime. Imposing ethical processes has been shown to significantly influence employee attitudes and values, fostering beliefs in their own effectiveness. This, in turn, stimulates and fortifies the organization's vision and bottom line. Ethical leaders are expected to play a key role in setting moral standards and contextualising them within an organisation, especially in times of war. They incentivise ethical behaviour through rewards and address unethical behaviour through disciplinary measures. In these ethical work environments, a culture of continuous learning prevails.

Under the influence of ethical leaders, employees internalize codes of ethics through various methods such as observation, role modeling, commitment to leadership, and performance analysis of their colleagues. It is critical to understand the unique benefits of ethical leadership, especially in times of conflict. A comparative analysis of different leadership styles during conflict can provide valuable information about the distinctive contribution of ethical leadership.

Research has shown that ethical leaders not only set moral expectations, but also significantly improve the psychological well-being of team members. This, in turn, leads to increased engagement, increased job satisfaction, organizational citizenship behavior (OCB), increased commitment, and overall improved performance (Hyusein & Eyupoglu, 2023). To deepen our understanding of the meaning of ethical leadership, it is important to compare it with other leadership styles under similar circumstances. Case studies and historical examples can be used to illustrate how ethical leadership, compared to other styles, concretely contributes to better outcomes in wartime. By highlighting the unique benefits of ethical leadership, we can gain valuable insight into its role in promoting positive organizational outcomes during periods of conflict.

Additionally, it is important to note that effective ethical leaders not only define moral standards but also set strategies for reward systems. This helps to maintain an ethical environment in the workplace and maintains a high level of moral values among staff (Craft, 2012). On the other hand, leaders who do not pay attention to ethical communication and do not use reward systems strategically are expected to risk fostering a work environment where political behavior among employees can emerge, which can be detrimental to organizational performance. While it is crucial to emphasize the importance of ethical leadership, a comprehensive understanding of how organizations can effectively implement and sustain these ethical principles, especially in challenging times such as the Russia-Ukraine war, is equally essential.

In order to cultivate ethical leadership, organizations can adopt various strategies:

1. Leadership Training Programs:

−   Develop and implement training programs that specifically focus on ethical leadership principles;

– Provide leaders with the necessary tools and skills to navigate ethical dilemmas;

2. Establishing Ethical Guidelines:

– Formulate clear and comprehensive ethical guidelines that align with the organization's values;
– Communicate these guidelines to all levels of the organization to ensure awareness and understanding;

3. Creating a Culture of Ethical Decision-Making:

– Foster a culture that encourages ethical decision-making at all levels;
– Recognize and reward ethical behavior to reinforce the importance of ethical conduct.

In the context of the Russia-Ukraine war, ethical leadership becomes even more critical as it can foster a culture of understanding, empathy, and transparency. Implementing these strategies can help mitigate potential conflicts and promote a positive work environment despite external challenges. It is crucial that leaders actively work to foster a positive perception of workplace processes and procedures (Sánchez-Castillo et al., 2023; Mazur et al., 2023). Ethical leadership plays a crucial role in setting the tone and enhancing the culture of the workplace. By effectively communicating organizational policies and procedures, leaders contribute to the establishment of an ethical work environment that withstands external pressures and fosters positive organizational outcomes. Ethical leaders are expected to empower team members by implementing fair decision-making processes and guiding them, making it clear that manipulation and inappropriate behaviour are not acceptable (Strydom, 2017; Mudrak et al., 2019). This proactive approach helps to reduce or eliminate the impact of negative policies at their source (Eisenbeiss, 2012). Thus, the ethical dimensions of leadership in the context of the Russian-Ukrainian war become especially important due to the complex situations that arise in connection with the conflict. In this context, ethical leadership is determined not only by the moral standards of individual leaders but also by the impact of their decisions and actions on the overall ethical state of society (see Table 2).

Table 2.
General ethical aspects of leadership in the context of war

Principle	Description
Respect for human life and human rights	Ethical leadership requires leaders to respect life and human rights in conflict. This means making decisions that protect the interests and safety of citizens.
Compassion and social responsibility	An ethical leader must show compassion for the tragic consequences of war, be willing to help the victims, and take social responsibility for the fate of his or her citizens.
No corruption and transparency	Wartime conditions can foster corruption and unfair practices. An ethical leader opposes corruption and establishes transparent rules and controls.
Communication and openness	A leader who is ethical actively communicates with the public and the international community, explains the essence of his decisions and actions, tries to prevent misinformation, and promote openness.

Source: Authors' elaboration based on Eisenbeiss (2012); Janovac & Virijević Jovanović (2022); Bridges (2018); Perepelytsia (2021); Benmira & Agboola (2021).

Given the ethical dimensions of leadership in the context of the Russia-Ukraine war, leaders are expected to demonstrate a high degree of responsibility, fairness, and willingness to cooperate to ensure peace and prosperity for both nations. A lack of clarity in ethical codes or a failure to integrate these codes into employee behaviour can lead to a negative political atmosphere in the workplace (Lutsiak et al., 2020).

Ethical principles are crucial for leadership in modern organisations, especially in times of war, for several good reasons.

1. A guiding moral compass

Ethical principles provide leaders with a moral compass, guiding their decisions and actions in a way that is consistent with values such as honesty, fairness, and integrity.

In the context of war, where difficult and complex decisions are often required, ethical leadership ensures that leaders make choices that are morally sound and resonate with societal values.

2.   Maintaining trust and reliability

Ethical leaders are expected to build trust and credibility among their team members and stakeholders by consistently demonstrating honesty, transparency, and accountability.

In times of war, trust is paramount to effective leadership. Ethical leaders inspire confidence in their ability to make ethical decisions, fostering loyalty and commitment among their teams.

3.   Creating a positive organisational culture

Ethical leadership fosters a positive organisational culture where values and norms promote ethical behaviour and a sense of responsibility.

In times of war, a positive organisational culture helps organisations overcome challenges, maintain resilience and support the well-being of their members.

4.   Mitigating unethical behaviour

Ethical principles act as a deterrent to unethical behaviour in an organisation. Leaders who are expected to emphasise ethical behaviour discourage people from engaging in actions that could harm others or the organisation.

In the context of war, ethical leadership helps to prevent abuse of power, corruption, or other unethical behaviour that could jeopardise the organisation's mission or tarnish its reputation.

5.   Improving decision-making processes

Ethical leaders are expected to consider the ethical implications of their decisions, weighing the potential impact on individuals and communities. In the context of war, where decisions can have serious consequences, ethical leadership ensures that decisions are thoughtful and principled, taking into account the well-being of all stakeholders.

6.   Promoting unity and cooperation

Ethical leaders are expected to promote unity and cooperation within teams by treating everyone with respect and valuing diversity, particularly in the demanding realities of wartime where teamwork and cohesion are paramount. In this context, ethical leadership establishes an inclusive environment, encouraging cooperation and mutual support.

In the aspect of adapting to changing situations, ethical leaders are anticipated to demonstrate adaptability and resilience. This involves adjusting strategies and decisions to meet evolving circumstances while steadfastly adhering to ethical principles. The context of war, characterized by inherent unpredictability, necessitates ethical leaders to navigate challenges with a flexible and principled approach.

Therefore, ethical principles constitute an integral aspect of effective leadership in modern organizations during times of war. Ethical leaders act as reflections of integrity, providing guidance, building trust, and cultivating a positive organizational culture capable of withstanding the challenges of conflict and uncertainty.

Analysing the impact of value orientations on decision-making strategies in the context of the Russian-Ukrainian war involves understanding how the fundamental values of individuals and organisations shape their approaches to managing complex and challenging situations arising from the conflict. The values selected for this analysis are *patriotism, humanitarian values, economic interests, honesty and transparency, and social responsibility*. Table 3 presents an analysis of these values and their implementation in the decision-making system in the context of the Russian-Ukrainian war.

Table 3.
Analysing values and describing their impact on decision-making strategies

Nationalism and patriotism	
Focus on values	Leaders who are influenced by strong nationalistic and patriotic values give priority to decisions that are in the interests and welfare of their respective nations.
Influence on decision-making:	Such managers tend to support strategies that strengthen national identity, security and sovereignty. This includes allocating resources, cooperating with national defence, and maintaining organisational resilience in the face of geopolitical challenges.
Humanitarian values	
Focus on values:	Leaders guided by humanitarian values prioritise solutions that uphold human rights, protect civilians and minimise harm to those affected by hostilities.
Influence on decision-making	These managers advocate for strategies that prioritise the safety and well-being of employees and stakeholders, potentially engaging in initiatives that contribute to humanitarian relief efforts or promote diplomacy and peaceful problem-solving.
Honesty and transparency	
Focus on values	Ethical leaders are expected to emphasise transparency, honesty, and accountability.
Influence on decision-making	In the context of war, managers with strong ethical values adopt decision-making strategies that ensure clear communication about the impact of conflict on the organisation, building trust among employees and stakeholders. Ethical leaders can advocate for transparent communication, compliance with international laws and regulations, and avoid actions that could lead to ethical controversy. They are expected to foster a corporate culture that is principled, accountable, and in line with global ethical standards.
Global cooperation	
Focus on values	Managers with a global perspective can emphasise solutions that promote international cooperation, diplomacy, and collaboration to solve complex problems in times of war.
Influence on decision-making	These managers are expected to support strategies that involve participation in international efforts, participation in international forums, and building alliances to address the company's challenges in the face of the geopolitical consequences of war.
Ability to adapt	
Focus on values	Managers who value crisis management and adaptability prefer solutions that increase organisational resilience, flexibility, and agility in responding to the uncertainties of conflict.
Influence on decision-making	These managers advocate strategies that involve scenario planning, risk assessment, and rapid adaptation to changing circumstances. They implement measures to ensure that the organisation can effectively deal with unforeseen problems.
Economic interests	
Focus on values	Managers who focus on economic values prioritise decisions that ensure financial stability, are expected to protect investments and reduce risks to the economic interests of the organisation.
Influence on decision-making	Such managers may emphasise strategies that ensure the financial sustainability of the organisation, including market diversification, currency risk management, and adaptation of business models to withstand conflict-related economic fluctuations.

Source: compiled by the authors based on Brantly (2023); Geier (2016); Goleman (2015); MacLean & Titah (2021); Žotkevičiūtė-Banevičiene (2022).

Thus, value orientations have a significant impact on decision-making strategies in the management of organisations in the context of the Russian-Ukrainian war. Understanding and alignment of these values can contribute to the development of sustainable, ethical, and socially responsible approaches to overcoming the challenges caused by the conflict. At the same time, in an era of warfare, a risk-taking approach and business contingency or a focus on long-term sustainability and responsibility play an important role.

In the context of the Russia-Ukraine war, a risk-based management approach means actively considering and analysing the risks associated with the conflict to minimise its impact on business processes (Kaltenbrunner & Simsa, 2021). Managers who follow this approach adopt strategies aimed at preventing possible threats, responding to emergencies, and building backup plans to ensure business resilience. At the same time, business resilience is the ability of an organisation to adapt and function in the face of uncertainty and crisis (Bridges, 2018). In the context of war, this includes the development of strategies that allow the enterprise to ensure the continuation of operations, preserve key resources, reduce the impact of negative factors, and effectively adapt to changes in the external environment (Zachara-Szymańska, 2023). On the other hand, leaders seeking long-term sustainability consider the impact of their decisions on the future of the enterprise and its role in the community. In the context of war, this includes developing actions aimed at creating lasting values that contribute not only to survival but also to the successful development of the organisation during and after the crisis. Leaders who feel a sense of responsibility to the community are expected to make decisions that take into account the interests of not only the organisation but also the wider social environment (Watters, 2017; Sánchez-Castillo et al., 2023). In the context of war, this may include measures aimed at supporting local communities, preserving jobs, and contributing to the restoration of economic prosperity in the conflict zone.

Discussion

During the Russian-Ukrainian war and historical conflicts in Europe, similar and different leadership strategies were revealed. Both contexts highlight the importance of adaptability and principled decision-making. Emphasis is placed on maintaining team unity and cooperation, as well as the importance of creating an inclusive environment. However, different challenges arise, such as specific geopolitics and different socio-cultural factors, which determine the unique aspects of leadership strategies in each context.

The proposed theses underscore the critical role of adaptation to global challenges as a strategic imperative for leaders in the field of public administration. In our interconnected world, facing numerous complex problems transcending national borders, this adaptive approach is crucial. Various contemporary authors support this perspective, including Maxwell (2013) and Safonov et al. (2018).

Moreover, several essential aspects must be considered when adapting to global challenges. Foremost among them is a profound understanding of global issues and the ramifications of actions during times of war. Leaders must be well-versed in the intricacies of challenges such as climate change, pandemics, migration, cybersecurity, etc., a sentiment echoed by Žotkevičiūtė-Banevičiene (2022). This comprehension enables the identification of priorities and the formulation of appropriate strategies, as emphasized by Goleman (2015). Simultaneously, the significance of collaboration with other countries and international organizations cannot be overstated. This collaborative approach is key to addressing complex global challenges effectively.

It has been proven that a leader must be able to combine efforts, partnerships, and coordination at the international level to solve problems together. At the same time, plans must be flexible and adaptable to new circumstances. Therefore, leadership during the Russian-Ukrainian war in the context of global challenges requires a broad overview, strategic thinking, the ability to work in a team and coordinate efforts at different levels - from local to international.

The results show that modern wartime leadership requires the development of leadership potential. Modern scholars Benmira & Agboola (2021) and Crossan et al. (2013) agree with this view. Leadership is an important component of management for numerous reasons; it helps to set the direction for an organisation or team, formulate a vision for the future, and define goals to be achieved. Similar conclusions were reached by Strydom (2017) and Volkan & Javakhishvili (2022).

The results show that the development of leadership potential is an important element of the strategies of modern public administration. Modern scholars identify several key components of the leadership potential of a manager in the field of public administration (Kozlovskyi et al., 2020; Kozlovskyi et al., 2022). Between 2008 and 2012, the world was faced with a number of important events, and leaders in different countries came up with strategies to solve various problems. Here are some key dimensions of leadership strategies during this period. For example, The United

States and the world: In the period after the financial crisis of 2008, the leaders of many countries, including the United States, adopted strategies to stabilize the economy. In particular, the introduction of economic stimulation programs, financial reforms and public debt management were on the agenda (Pipe et al., 2008; Dluhopolskyi et al., 2023). Leaders of Arabian countries affected by the Arab Spring faced challenges from the public demanding democratic change. The strategies included political reforms, dialogue with society and implementation of measures for economic development. European Union leaders have been grappling with the financial problems associated with the euro crisis (Gooding-Williams, 2011). The strategies included the creation of financial mechanisms to support countries with serious economic difficulties and changes in the governance structure of the Eurozone. In general, leadership strategies during this period were aimed at addressing a variety of global challenges, such as economic hardship, political upheaval, and rapid technological development.

The scientific novelty of the article lies in an in-depth consideration of the ethical aspects of leadership in the context of military conflict, as well as in clarifying the relationship between the value orientations of leaders and their decision-making strategies in the context of military conflicts. The study focuses on the analysis of the values that guide leaders in the context of military confrontation, influence their ethical decisions and strategies that determine further steps and developments. Given the relevance of the Russian-Ukrainian war as a socio-political phenomenon of the 21st century, this study can bring new perspectives on the ethical aspects of leadership and decision-making in modern military conditions, contributing to the development of scientific understanding of these issues and possible influence on the formation of leaders' strategies in such situations.

Undoubtedly, this study has certain limitations. The concept of leadership as a human phenomenon has been the subject of scientific research for a long time. To write this article, we searched for the most relevant scientific papers that have been chronologically written since 2012. On the one hand, this limitation is explained by the beginning of Russian aggression against Ukraine, which has been determined since 2014, when the Crimean peninsula was occupied. However, the results of studies conducted in earlier times may also be relevant to definitions of leadership in times of war, so this aspect allows us to continue the study

in a comparative context in the future. Another limitation in the analysis was the selection of sources, which, although covering well-known and influential scientific knowledge bases, leaves the possibility that some studies important for understanding the role of leadership in wartime were out of focus.

Certainly, a more detailed discussion on how leadership decisions, influenced by different value orientations, impact various stakeholders in wartime would significantly enrich the section. This expanded analysis could delve into the short-term and long-term consequences for distinct groups, offering a comprehensive view of the ripple effects of leadership. Here's a more detailed exploration:

For example in the sphere of International Relations Leaders are expected to make decisions based on international cooperation and diplomacy values can impact the immediate geopolitical landscape. Collaborative efforts or, conversely, isolationist approaches can shape the international perception of a country or organization during wartime. Over the long term, decisions influenced by global cooperation may contribute to diplomatic success, alliances, and positive international standing. Conversely, decisions that strain international relations may lead to long-term geopolitical challenges and diplomatic tensions.

This detailed exploration highlights the nuanced effects of leadership decisions on various stakeholders. Analyzing both short-term and long-term consequences will provide a more thorough understanding of how different value orientations can shape the trajectory of an organization or country during wartime in the future.

Conclusions

In the backdrop of the Russian-Ukrainian war, the ethical dimensions of leadership emerge as pivotal forces shaping decision-making strategies within organizations and management structures. Reflecting on the impact of value orientations on these strategies reveals the intricate ethical dilemmas that modern political leaders face during times of conflict.

Leaders guided by humanitarian values prioritize strategies centered around the well-being of their subordinates in the face of war. The safety and psychological health of staff become paramount considerations. Conversely, leaders embracing national values prioritize the protection of their

country's sovereignty and security, aligning decisions with patriotic sentiments. Ethical leadership, in this context, involves outspoken opposition to negative political phenomena, fostering transparency, and openness in governance. Yet, within the complexity of wartime, ethical considerations intertwine with risk-taking and business contingency. Leaders adopting a risk-centric approach actively navigate the uncertainties of conflict, crafting strategies focused on ensuring operational sustainability and efficiency amid volatile conditions. In contrast, leaders emphasizing long-term sustainability and societal responsibility incorporate social aspects into their strategies, recognizing that fortifying values tied to societal responsibility is pivotal for successful recovery from crises.

It is clear that the ethical landscape for leaders in wartime is multifaceted. Striking a balance between humanitarian and national values, risk-taking, and societal responsibility requires astute decision-making. The interplay of these factors creates an intricate leadership context wherein leaders must grapple with ethical dilemmas, ensuring not only the survival but also the ethical integrity and societal impact of their organizations amid the uncertainties of war. This study possesses certain limitations. The concept of leadership, as a fundamental aspect of human behavior and organization, has been extensively researched within the realm of scientific inquiry for a significant period. In the endeavor to compile this article, our approach involved a comprehensive search for the most pertinent scientific literature available, particularly focusing on works produced since 2012. The temporal constraint of sourcing literature primarily from 2012 onwards is a notable limitation of this study. This restriction can be attributed to the onset of Russian aggression against Ukraine, which commenced in 2014 with the occupation of the Crimean peninsula. The significance of this limitation lies in the fact that the geopolitical landscape and dynamics of conflict dramatically shifted during this period, potentially influencing the discourse and understanding of leadership in wartime contexts. However, it is essential to recognize that studies conducted prior to 2012 may also offer valuable insights into the nature of leadership during times of war. Consequently, this aspect of the limitation presents an opportunity for future research to undertake a comparative analysis, encompassing a broader temporal scope, to further enrich our understanding of leadership dynamics in wartime scenarios. In summary,

while this study strives to provide valuable insights into the ethical dimensions of leadership within the context of the Russian-Ukrainian war, it is essential to recognize and address the inherent limitations. Future research endeavors should aim to mitigate these limitations through a more extensive temporal scope and a meticulous approach to source selection, thereby fostering a more comprehensive and nuanced understanding of leadership dynamics in times of conflict.

Hence, in the context of the Russian-Ukrainian war, it was found that the ethical dimensions of leadership determine decision-making strategies based on value orientations. These aspects, combined with long-term sustainability and responsibility to the community, and risk-taking, create an effective leadership context for organisations in uncertain wartime conditions.

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Cultural preservation and digital heritage: challenges and opportunities

Preservação cultural e património digital: desafios e oportunidades

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Abstract

This research aims to examine the challenges and opportunities associated with the digitization of cultural heritage. It seeks to provide insights into the dynamic interplay between technological advancements and the preservation, documentation, and promotion of cultural landmarks. The study employs a comprehensive literature review, analyzing recent scholarly works and case studies to understand the evolving landscape of digital heritage preservation. The results highlights the multifaceted challenges encountered in the digitization process, including issues related to digital obsolescence, accessibility, copyright, data security, and resource constraints. Simultaneously, it identifies opportunities where digital tools contribute significantly to the documentation, archiving, and accessibility of cultural artifacts, traditions, and languages. The

Resumo

Esta investigação visa examinar os desafios e as oportunidades associados à digitalização do património cultural. Procura fornecer informações sobre a interação dinâmica entre os avanços tecnológicos e a preservação, documentação e promoção marcos culturais. O estudo recorre a uma revisão exaustiva literatura, analisando trabalhos académicos recentes e estudos de casos para compreender o panorama evolução da preservação do património digital. Os resultados destacam os desafios multifacetados encontrados no processo de digitalização, incluindo questões relacionadas a obsolescência digital, a acessibilidade, os direitos de autor, a segurança dados e as limitações de recursos. Simultaneamente, identifica oportunidades as ferramentas digitais contribuem significativamente para a documentação, o arquivo acessibilidade de artefactos culturais, tradições e línguas. Os

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results suggest that, especially in the context of Russian-Ukrainian war, digital initiatives play a pivotal role in mitigating risks and ensuring the continued existence and appreciation of diverse cultural legacies. The findings underscore the intricate relationship between geopolitical events and the role of digital strategies in safeguarding and showcasing cultural heritage globally. To sum up the fusion of technology and cultural preservation efforts not only addresses immediate threats, but also provides a forward-looking approach to ensuring the resilience and accessibility of cultural treasures in an evolving world.

Keywords: Digital transformation, documentation, cultural artifacts, accessibility, heritage preservation.

resultados sugerem que, especialmente no contexto da guerra russo-ucraniana, as iniciativas digitais desempenham um papel fundamental na atenuação dos riscos e na garantia da existência e apreciação contínuas de diversos legados culturais. Concluise que a fusão da tecnologia com os esforços de preservação cultural não só resposta às ameaças imediatas, como também estabelece uma abordagem orientada para o futuro, a fim de garantir a resiliência e a acessibilidade dos tesouros culturais num mundo em evolução.

Palavras-chave: Transformação digital, documentação, artefactos culturais, acessibilidade, preservação do património.

Introduction

Research problem

In an era defined by rapid technological advancements and an increasingly interconnected global society, the preservation of cultural heritage has become a paramount concern. The intersection of culture and technology has given rise to a fascinating and complex landscape known as digital heritage. As societies around the world grapple with the challenges of preserving their rich cultural legacies, the integration of digital tools and technologies presents both unprecedented opportunities and unique obstacles.

The concept of establishing a comprehensive paradigm that unifies progress in innovation is currently taking shape within the contemporary scientific discourse (Sofilkanych, 2022). According to Maraieva (2022) this paradigm envisions technologies serving as tools, with information playing a synergistic role that connects humans, society, nature, and technology. In this envisioned framework, technological advancements are not merely isolated developments but integral components, harmoniously interacting with information to create a symbiotic relationship among individuals, communities, the environment, and the tools themselves (Maraieva, 2022). Therefore, the integration of technology and information within this overarching paradigm seeks to foster a holistic approach to progress, emphasizing the interconnectedness and interdependence of various elements in current evolving societal and scientific landscape. The realization of an encompassing paradigm aimed

at consolidating progress in innovation is actively unfolding within the contemporary scientific dialogue, as discussed by Trček (2022). This paradigm envisions technologies not merely as standalone advancements but rather as integral tools (Yatsenko, 2022). Within this conceptual framework, information assumes a synergistic role, fostering meaningful connections among humans, society, nature, and technology (Durmishi & Durmishi, 2022).

Research focus

The advent of the digital age has introduced innovative methods to document, archive, and share these cultural treasures. From digitizing ancient manuscripts and artefacts to creating virtual museums and online archives, the digital realm opens up new avenues for the conservation and dissemination of cultural heritage.

However, with these opportunities come challenges that demand careful consideration. The digital landscape introduces concerns related to data security, accessibility, and the risk of cultural commoditisation. Additionally, as communities strive to strike a balance between traditional preservation methods and cutting-edge technologies, questions emerge about the authenticity and integrity of digitally preserved cultural artefact.

Reseaerch aim and research questions

The aim of this study is to explore the challenges and opportunities inherent in the intersection of cultural preservation and digital heritage, with a

focus on understanding how digital technologies impact the safeguarding and dissemination of cultural legacies. The circle of research questions consists of the following aspects:

1. To investigate how digital technologies facilitate the conservation of cultural heritage, delineating specific tasks that contribute to the effective transmission of oral traditions, rituals, and folklore to future generations.
2. To explore how digital tools and technologies contribute to the documentation, archiving, and accessibility of cultural artefacts, traditions, and languages, outlining specific tasks and methodologies employed.
3. To investigate the primary challenges encountered in digitally preserving cultural heritage, examining issues related to authenticity, integrity, and the potential commodification of cultural artefacts.

Therefore, given the relevance of digitalization, this study aims to clarify the challenges and opportunities of cultural preservation and heritage. The main challenges that require detailed analysis include copyright and intellectual property issues, data security and privacy concerns, standards and interoperability, and ethical considerations.

Theoretical framework or literature review

International experiences provide valuable insights into the normative clarification of the cultural heritage concept, particularly within the realm of global intellectual discourse. This elucidation is closely intertwined with the conceptual generalizations found within scientific disciplines of the humanitarian profile (Marsili & Orlandi, 2020; Synowiec, 2021). The growing interest among researchers in the intricate nuances of cultural heritage has not only stimulated a significant expansion of cognitive and axiological dimensions but has also heightened the urgency for constructive responses to fundamental questions. These crucial inquiries delve into the identification of elements that should be preserved and the methodologies for selecting cultural values deserving of protection. Diverse approaches to understanding the essence of cultural heritage contribute to the construction of a nuanced and multifaceted image of this concept (Shevchenko, 2020). The genetic approach posits cultural heritage as a paramount influence on national self-awareness, self-identification, historical memory, and the evolution of human culture

throughout history. From a geographical standpoint, cultural heritage emerges as a formidable resource for preserving both natural and cultural diversity within the broader ecological context (Kubiv et al., 2020; Bobro, 2023). This form of heritage is foundational for fostering the balanced development of both society and the biosphere. Within the semiotic perspective, cultural heritage is broadly perceived as a collection of texts inherited by mankind. These encompass not only written works but also artistic creations, collectively serving as a repository of cultural memory (Synowiec, 2021). In parallel, the term "digital heritage" introduces a dual connotation. It can refer to cultural heritage presented in digital form or signify the digitized (electronically formatted) cultural heritage. Contemporary researchers have been intrigued by the issue of preserving cultural heritage through the use of digital technologies. Current studies encompass various aspects of cultural heritage preservation and accessibility, leveraging digital technologies. Antoniazzi (2020) addressed the challenges of digital preservation and sustainability in film heritage, emphasizing the analysis of digital technology utilization for the longevity of cinematic heritage. However, this paper serves only as a theoretical framework, as the author did not provide detailed examples of local challenges. Basic (2019) explored key aspects of utilizing advanced technologies in the realm of cultural heritage. However, this study also has certain limitations, in particular, the author approached this problem globally without focusing on specific examples. In the work of DA Costa & Santos (2023), UNESCO's strategy for memory preservation in Ukraine through the Polycam mobile application was presented, analyzing the impact of digital technologies on recording and preserving cultural heritage in conflict zones. Dässler & Preuss (2019) described issues related to digital preservation of cultural heritage, focusing on small institutions, and characterized methods and strategies for ensuring accessibility and preservation of digital archives in smaller settings. Simultaneously, Ferrer-Yulfo (2022) focused on analyzing the use of digital technologies for transforming museum education through intangible cultural heritage. In a comprehensive study, Fisher (2020) identified key challenges and strategies for preserving materials created in digital formats, with a specific emphasis on copyright issues. Flierl & Haspel (2022) described crucial contemporary challenges and opportunities in the preservation of world heritage, characterizing the impact of digital technologies on the understanding, documentation, and preservation of objects

within the global heritage context. The analyzed works collectively underline the vital role of digital technologies in preserving and making accessible various forms of cultural heritage. Researchers delve into challenges, strategies, and the transformative impact of digital tools, emphasizing the significance of technological advancements in safeguarding our diverse cultural legacy (McHugh, 2023). However, the main limitations of these studies are their general nature. Nevertheless, it is important to comprehensively approach the problem and characterize the main possibilities of digital technologies in the system of preservation of cultural heritage and memory. Thus, the modern literature raises the issue of mechanisms and forms of digitalization of cultural heritage in detail, but not all possibilities are covered in such

detail. Also, contemporary scholars have not paid much attention to analyzing the main difficulties of implementing digitalization in the field of cultural heritage, which is the purpose of this paper.

Methodology

The study focuses on the intersection of cultural preservation and digital heritage, examining the challenges and opportunities arising in the context of digitizing cultural heritage. The phenomenon involves the digitization of various cultural elements, including artifacts, traditions, and linguistic resources, to explore the multifaceted implications for preserving and disseminating cultural legacies (See Figure 1).
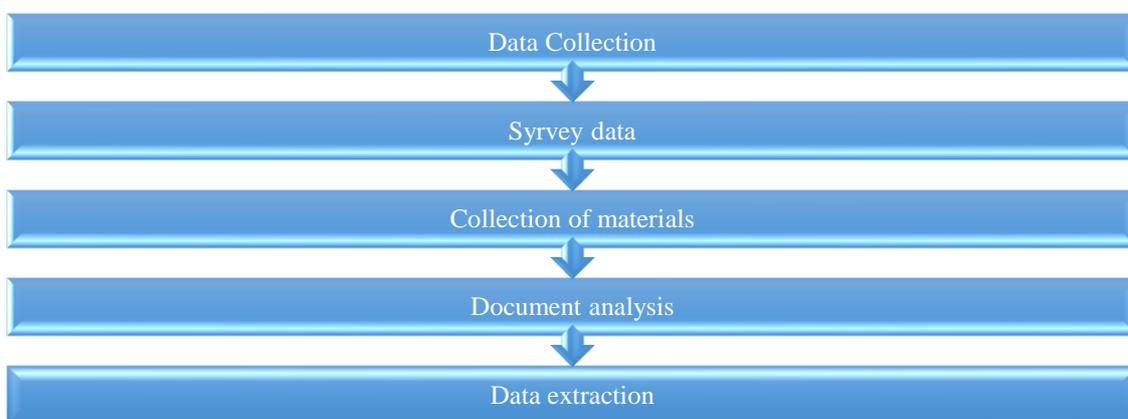
Figure 1. Research design
Source: Author's development

Data collection and data analysis

1.   Survey data

Authors used the survey conducted by Adane, Chekole & Gedamu (2019).

Participants: the survey targeted professionals engaged in cultural preservation within archive and tourism offices, as well as university libraries. The participants were selected based on their direct involvement in digitization processes and their perspectives on the challenges and opportunities in preserving cultural heritage through digital means.

Data collection method

A structured survey questionnaire was distributed, covering aspects such as current digitization practices, perceived challenges, successful strategies, and future aspirations.

Open-ended questions allowed participants to provide qualitative insights, while closed-ended questions provided quantitative data for analysis.

2.   Document analysis

Materials examined:

o   The Comprehensive Report of the European Commission: Report on Cultural Heritage: Digitisation, Online Accessibility and Digital Preservation (European Commission, 2019).
o   Association Agreement between Ukraine and the European Union, emphasizing cultural collaboration and cooperation (Muraviov, 2015).
o   2013 Decree of the Cabinet of Ministers on the Strategy for the Development of the Information Society in Ukraine (Law of Uktaine No. 386-p., 2013).

- o 2016 Decree on the Long-term Strategy for the Development of Ukrainian Culture – Reform Strategy (Law of Uktaine No. 119, p., 2016).
- o Library Development Strategy until 2025, approved in 2016. (Goverment of Lithuania, 2016)
- o The Slovenian Public Libraries Development Strategy 2022-2027 (Goverment of Slovenia, 2022).
- o The library development concept in the Czech Republic between the years 2021-2027, with prospect to 2030 (Goverment of Czech Republic, 2021).

Data extraction: relevant information pertaining to digital cultural heritage preservation, legislative priorities, and strategic frameworks was systematically extracted from the documents.

Thematic coding: a thematic coding approach was employed to categorize and analyze the extracted data, identifying key themes such as legal frameworks, cultural collaboration, and strategies for digital preservation. Therefore, on the basis of synthesis and comparison analysis, process and compare data from the survey and data from legislative acts. This involved systematically identifying key themes within the data, such as legal frameworks, cultural collaboration, and strategies for digital preservation. For instance, each piece of data was carefully examined and assigned to relevant themes based on its content and context. For instance, data pertaining to legal frameworks included references to international conventions,

national legislation, or judicial decisions related to the topic of interest. Similarly, instances of cultural collaboration identified through references to partnerships between cultural institutions, collaborative projects, or joint initiatives aimed at cultural preservation. Furthermore, the process of synthesis and comparison analysis involved systematically comparing data collected from surveys with information extracted from legislative acts.

One of the main limitations of thematic coding is its susceptibility to researcher bias. While the thematic coding approach used in this study provides valuable insights into the data, it is important to acknowledge its limitations in order to ensure that the interpretation of the findings is nuanced and comprehensive. Despite efforts to establish clear coding criteria, the interpretation of data and the allocation of codes can still be influenced by the subjective perspective of the researcher. Such subjectivity can lead to inconsistent or imprecise coding, which can affect the reliability and validity of the findings.

Results and discussion

The dynamic interplay between traditional and digital aspects adds a layer of complexity to the evolving landscape of cultural heritage conservation. Therefore, digital technologies play a pivotal role in facilitating the conservation of cultural heritage by offering innovative tools and approaches that enhance documentation, preservation, and dissemination efforts. Figure 1 presents the main aspects of preserving cultural heritage with the help of digital technologies.
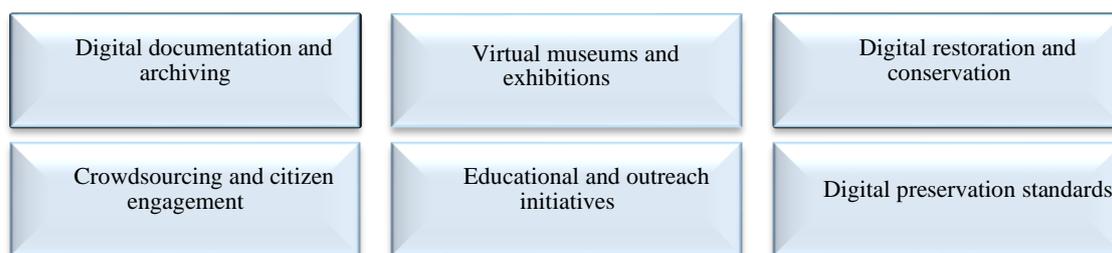
Figure 1. Several aspects of preserving cultural heritage with the help of digital technologies.
Source: author's development

Hence, digital technologies enable the creation of comprehensive databases and archives for cultural artifacts, historical documents, and other heritage items. High-resolution cameras, 3D scanners, and advanced imaging techniques allow for detailed and accurate documentation. Authors believe that digital archiving ensures the preservation of fragile or deteriorating materials by creating electronic replicas, reducing the need

for physical handling (Pandey & Kumar, 2020). As demonstrated in Figure 1 digital platforms provide opportunities to develop virtual museums and online exhibitions, allowing global audiences to access cultural artifacts and exhibits remotely. Moreover, digital tools aid in the restoration and conservation of artworks, artifacts, and historical sites (Anderson, 2013; Kuzheliev et al., 2023). Digital restoration

techniques can repair damaged elements without altering the original physical object. Conservationists use 3D printing and digital modeling to recreate missing or damaged parts of cultural items, ensuring their integrity over time. On the other hand, digital platforms facilitate crowdsourcing initiatives, encouraging public participation in the identification, documentation, and preservation of cultural heritage (Von Schorlemer, 2020). Therefore, citizen engagement through social media and online forums helps raise awareness, garner support, and involve communities in the protection of their heritage. As demonstrated in Figure 1 digital preservation standards also have important role. Standardized digital preservation practices, including metadata standards and digital storage protocols, ensure the long-term accessibility and sustainability of digital collections related to cultural heritage. In addition, digital technologies provide avenues for educational programs and outreach initiatives, offering virtual classrooms, online courses, and interactive learning materials that promote cultural heritage awareness and appreciation (Dässler & Preuss, 2019). Hence, digital tools and technologies play a crucial role in the documentation, archiving, and accessibility of cultural artifacts, traditions, and languages. By leveraging these digital tools, cultural heritage professionals, communities, and organizations can enhance their conservation efforts, ensuring the preservation and transmission of cultural richness to future generations. Table 1 describes how digital tools are used for cultural heritage preservation purpose.

Table 1.
Ways of using digital tools for cultural heritage preservation

Digital documentation of cultural artifacts	
High-resolution imaging	Advanced cameras and imaging technologies capture high-resolution images of cultural artifacts, ensuring detailed documentation.
3D scanning	For three-dimensional objects, 3D scanning creates digital replicas, preserving intricate details and allowing for virtual exploration.
Digital archiving of cultural materials	
Digital repositories	Cultural artefacts, historical documents, and multimedia materials are stored in digital repositories, creating centralized databases for efficient archiving.
Metadata tagging	Each artefact is accompanied by metadata, providing crucial contextual information, such as origin, significance, and historical context.
Preservation of traditional practices and performances	
Audio-visual recording	Traditional music, dance, rituals, and performances are recorded using audio and video technologies to ensure accurate preservation.
Virtual reality and augmented reality	These technologies offer immersive experiences.
Digital documentation of languages	
Language digitization	Digital tools are employed to transcribe, record, and digitize endangered languages, ensuring their preservation.
Machine translation and natural language processing	
Translation tools	Machine translation tools contribute to the translation of cultural texts, enabling broader accessibility.
Natural language processing	Technologies analyze and interpret linguistic nuances, aiding in the documentation and analysis of languages.
Community engagement and crowdsourcing	
Digital platforms	Online platforms and social media encourage community participation in documentation efforts, allowing individuals to contribute their knowledge, stories and artefacts.
Crowdsourced translation	Communities contribute to the translation of texts, ensuring accuracy and cultural sensitivity.
Geospatial technologies for cultural heritage sites	
Geographic information systems (GIS) mapping	GIS map cultural heritage sites, aiding in their documentation, conservation planning, and monitoring
Location-based apps	Mobile apps with geolocation features provide virtual tours and information about cultural heritage sites.
Accessibility through online exhibitions and virtual museums	
Virtual exhibitions	Digital tools enable the creation of virtual exhibitions, making cultural artifacts and traditions accessible to a global audience.
Online collections	Institutions create digital collections, allowing users to explore and learn about cultural heritage items from anywhere in the world.

Source: Author's development.

In a comprehensive survey conducted by Adane, Chekole & Gedamu (2019) within the spheres of archive and tourism offices, as well as university libraries, participants were actively engaged in providing valuable insights into the multifaceted opportunities associated with the digitization of cultural heritage. Respondents were particularly vocal about the positive impact of digitization on cultural heritage promotion. A substantial majority, totaling 96% conveyed a unanimous and favorable perspective, highlighting the potential for digital platforms to effectively promote and showcase cultural heritage. The survey also delved into the crucial aspect of digitization in cultural heritage preservation. The findings revealed that 54% of respondents expressed a resounding "strongly Agree" sentiment, emphasizing the pivotal role of digitization in safeguarding cultural heritage. Additionally, 42% of participants acknowledged with the importance of digitization in preserving rich cultural legacy (Adane, Chekole & Gedamu, 2019).

One noteworthy revelation from the survey pertained to job opportunities for the youth generated through cultural heritage digitization. A significant 32% "strongly Agreed", indicating a strong consensus on the positive impact of digitization in creating employment opportunities for the younger generation (Adane, Chekole & Gedamu, 2019). The survey participants also weighed in on the role of cultural heritage digitization in enhancing research works. 48% agreed that digitization significantly contributes to research endeavors, while an additional 36% agreed, reflecting the widespread acknowledgment of the positive correlation between digitization and scholarly pursuits within the cultural heritage domain. Furthermore, the survey brought to light the impact of cultural heritage digitization on online visits and online selling. A majority of 44% of participants recognized the role of digitization in promoting online engagement (Adane, Chekole & Gedamu, 2019). This aspect underscores the evolving landscape of cultural heritage experiences, emphasizing the potential of digital initiatives to enhance accessibility and audience engagement. In summary, the survey results not only reaffirm the positive perceptions surrounding the opportunities presented by cultural heritage digitization but also shed light on the varied ways in which digitization contributes to cultural heritage promotion, preservation, employment generation, research advancement, and online engagement.

At the same time, the contemporary milieu marked by the ubiquity of digital technologies, the preservation of cultural heritage encounters a confluence of challenges and opportunities at the intersection of tradition and technological evolution. The paradigm shift towards digital heritage entails not merely the digitization of tangible artifacts but also engenders intricate complications pertaining to their enduring conservation, equitable accessibility, and ethically sound representation in the digital domain (Hurska & Parshyn, 2023; Prykhodko, 2019). This discourse delves into the nuanced challenges inherent in the amalgamation of cultural preservation and digital heritage, dissecting intricacies such as digital obsolescence, inclusivity metrics, copyright complexities, and the ethical underpinnings of digital representations. By scrutinizing these challenges through a scientific lens, it is better to seek to elucidate the imperative for an interdisciplinary and pioneering approach to ensure the perpetuity of diverse cultural legacies in the digital epoch. Preserving cultural heritage in the digital age presents numerous challenges, as the intersection of traditional cultural preservation and the rapidly evolving digital landscape introduces both opportunities and risks. Scientists remarked some key challenges associated with cultural preservation and digital heritage (See Table 2).

Table 2.
Important challenges of cultural preservation in the digital heritage

Challenge	Characteristic
Copyright and intellectual property issues	Digital reproduction and dissemination of cultural artifacts often involve complex copyright and intellectual property considerations. Striking a balance between protecting creators' rights and facilitating broader access to cultural heritage materials is a continual challenge.
Data security and privacy concerns	The digitization of cultural artifacts raises concerns about the security and privacy of sensitive information. Safeguarding digital heritage from unauthorized access, data breaches, and cyber threats is paramount to maintaining trust and integrity.
Resource constraints	Preserving digital heritage requires significant financial and human resources. Many cultural institutions, especially smaller ones, may struggle to allocate sufficient funds and expertise for digital preservation initiatives.
Standards and interoperability	Lack of standardized practices for digitization and metadata creation can hinder interoperability between different cultural heritage databases. Establishing common standards is essential for seamless sharing and integration of digital heritage materials.
Digital conservation and restoration challenges	Unlike physical artifacts, digital materials may require ongoing conservation efforts due to format degradation, software dependencies, and other technical issues. Digital restoration practices need to be developed and refined to ensure the longevity of digital cultural heritage.
Ethical considerations	Digitization raises ethical questions, such as the appropriate use of cultural artifacts and the potential for misrepresentation or misuse. Establishing ethical guidelines and involving communities in decision-making processes is crucial to address these concerns.
Cultural sensitivity and representation	Digitization efforts must be conducted with cultural sensitivity to avoid misappropriation or distortion of cultural narratives. Ensuring accurate representation and involvement of communities in the digitization process is vital.
Global collaboration and coordination	Cultural heritage is often shared across borders, and effective preservation requires international collaboration. Coordinating efforts, sharing best practices, and addressing challenges on a global scale are essential for the comprehensive preservation of digital heritage.

Source: Author's investigation on the basis of Synowiec (2021); Skakun (2022).

Digitization of cultural monuments has become an important issue for European countries. In particular, separate models of its implementation are introduced centrally - at the international and national levels. The "Comprehensive Report" of European Union covering the period 2015-2017 reveals that a significant proportion of Member States of EU have formulated their respective National Digitization Strategies. Specifically, 19 out of 28 Member States (at that time, considering the UK as part of the EU) have established these strategies, with the majority operating under the central coordination of the pertinent ministry or ministries (European Commission, 2019). Additionally, 17 out of 28 Member States have instituted national funding programs to support digitization initiatives. It is noteworthy that certain countries integrate their national strategies for the digitization of cultural heritage within broader national digital programs (Goverment of Slovenia, 2022). For instance, in Lithuania, digitalization constitutes a component of the Digital Agenda for the Republic of Lithuania. The primary domains of focus for

advancing the virtual space for cultural heritage are delineated in the Program of Digital Cultural Heritage Actualization and Preservation for the period 2015-2020 (Goverment of Lithuania, 2016).

The experience of Ukraine is also very important for understanding of cultural preservation and digital heritage challenges. Ukraine currently lacks a comprehensive digitalization strategy, although the legislative groundwork for its formulation is evident. The surge in European integration initiatives, particularly following the signing of the "Association Agreement between Ukraine and the European Union" in 2014, emphasizes cultural collaboration in Chapter 24 (Muraviov, 2015). This chapter outlines a commitment to enhance cooperation in the cultural sphere, promoting mutual understanding, cultural exchanges, and the mobility of artistic entities between Ukraine and the EU. Remarkably, an examination of the analytical reports on the EU-Ukraine Agreement Implementation for 2019 reveals a notable

absence of information concerning cultural cooperation, specifically in the digitization of cultural heritage (Prykhodko, 2019). It becomes apparent that, within the spectrum of Ukraine-EU integration issues, cultural integration receives insufficient attention. Despite this, Ukraine has laid the foundation for a potential national digitization strategy through various legislative documents. Noteworthy among these are the 2013 Decree of the Cabinet of Ministers, which approves the "Strategy for the Development of the Information Society in Ukraine," emphasizing E-culture development (Law of Uktaine No. 386-p., 2013). Additionally, the 2016 Decree on the "Long-term Strategy for the Development of Ukrainian Culture – Reform Strategy" prioritizes the preservation of cultural and spiritual heritage (Law of Uktaine No. 119, p., 2016). The Library Development Strategy until 2025, approved in 2016, further underscores the commitment to preserving Ukrainian cultural heritage within library resources, treating them as integral components of the global cultural heritage (Prykhodko, 2019). These legislative measures provide a basis for Ukraine to advance its digitalization endeavors in the cultural sphere.

The Russian invasion of Ukraine in 2022 significantly altered the approach towards digitizing cultural heritage in the country. This war heightened all aspects of national security, including the preservation and protection of cultural heritage. Firstly, the Russian aggression necessitated the implementation of effective measures to preserve cultural artifacts, as conflict-ridden areas faced the risk of destructive impact. This underscored the need to utilize digital technologies for creating virtual copies of valuable objects and documenting their condition for future restoration. Secondly, due to the risk of losing parts of the cultural heritage through conflict and occupation, Ukraine expressed increased interest in detailed documentation and preservation of these treasures. This requires the use of modern technologies for digital cataloging and archiving of cultural landmarks. Thirdly, the role of digital technologies proved crucial in studying and popularizing Ukrainian culture as a means of resistance to identity suppression and historical aggression. Digital media and online platforms enable a wide audience to explore and appreciate Ukraine's rich cultural heritage, serving as an important tool for informing and highlighting the context of the conflict. Thus, the Russian invasion prompted not only changes in the security of cultural heritage but also an intensified use of digital technologies for the preservation, documentation, and promotion of Ukraine's cultural landmarks.

The obtained results underscore the importance and effectiveness of utilizing digital tools and technologies in documenting, archiving, and providing access to cultural artifacts, traditions, and languages. Specifically, the results affirm the efficiency of documentation, highlighting that high-quality images and 3D scanning enable detailed and accurate documentation of cultural artifacts. Simultaneously, the use of digital repositories and metadata contributes to the systematic and efficient archiving of materials. Furthermore, the results emphasize that audio and video recordings facilitate the preservation of traditional musical, dance, and ritual performances. The incorporation of virtual reality and augmented reality ensures an immersive experience in participating in traditional events. These findings align with contemporary scholarly works (Pandey, & Kumar, 2020; Shiri et al., 2021). For instance, Karle & Carman (2020) elucidate how a digital heritage project can impact the research and interpretation of large-scale rural cultural landscapes, emphasizing the critical importance of wide-scale documentation methods for advancing preservation initiatives.

However, the obtained results somewhat contradict the assertions of Mohd Herrow & Azraai (2021), who emphasize the interconnectedness of culture and heritage. There are points of divergence or areas for further discussion, particularly regarding the broad characterization of culture, focusing solely on ethical actions, values, creativity, knowledge, traditions, and beliefs. Additionally, the study challenges the notion presented by Mohd Herrow & Azraai (2021) that cultural heritage is a legacy not only of each nation but also of humanity as a whole, asserting that certain elements may be culturally specific rather than universal.

In the results, it is evident that the Russian invasion of Ukraine in 2022 has left a profound mark on the strategies and priorities associated with digitizing cultural heritage in the country. The war's far-reaching implications have reverberated across various aspects of national security, with a heightened emphasis on the critical need for the preservation and protection of Ukraine's rich cultural legacy. As a response to the increased risk of destructive impact on conflict-affected areas, the adoption of digital technologies has become a pressing necessity. This involves the creation of virtual copies of valuable cultural artifacts and meticulous documentation of their condition, laying the foundation for future restoration efforts. Additionally, the heightened risk of losing parts

of the cultural heritage through conflict and occupation has spurred a surge in interest in detailed documentation and preservation measures. To meet these challenges, modern technologies play a pivotal role in the digital cataloging and archiving of cultural landmarks, ensuring their safeguarding for future generations. The results also confirm the existence of numerous challenges in the path of digitizing cultural heritage, such as digital obsolescence, accessibility and inclusivity, copyright and intellectual property issues, data security and privacy concerns, resource constraints, digital conservation and restoration challenges, and ethical considerations.

Meanwhile, Adane, Chekole, Gedamu's (2019) work lists other challenges, particularly emphasizing cultural heritage accessibility and promotion and preservation. However, the study does not explore external factors contributing to these challenges, such as broader economic conditions, technological infrastructure, or governmental support.

Furthermore, the study challenges some perspectives presented by Von Schorlemer (2020), questioning the subjective nature of the concept of a "fair balance" between the rights of creators and the public's right to access digital heritage materials, especially in the context of digital heritage.

In summary, the scientific novelty of the work lies in its contribution to understanding how digital technologies integrate to ensure the preservation of cultural heritage. The analysis of contemporary challenges arising from digital transformation indicates a scholarly interest in developing solutions for the long-term preservation of cultural heritage.

Conclusions

Hence, the research highlights the significance of digital tools and technologies in documenting, archiving, and enhancing accessibility to cultural artifacts, traditions, and languages. The findings underscore the effectiveness of digital methods such as high-quality imaging, 3D scanning, virtual reality, and augmented reality in ensuring the detailed documentation and immersive experience of cultural heritage. Authors emphasize the importance of addressing challenges such as digital obsolescence, accessibility and inclusivity, copyright issues, data security, and ethical considerations in the process of digitizing cultural heritage.

Furthermore, the Russian invasion of Ukraine in 2022 significantly impacted the approach towards digitizing cultural heritage in the country. The conflict heightened concerns for the preservation and protection of cultural artifacts in conflict-ridden areas, necessitating the implementation of effective measures. The use of digital technologies became crucial in creating virtual copies of valuable objects and documenting their condition for future restoration. Importantly, digital technologies played a pivotal role in studying and promoting Ukrainian culture as a means of resistance to identity suppression and historical aggression. Thus, the Russian invasion not only brought about changes in the security of cultural heritage but also intensified the use of digital technologies for the preservation, documentation, and promotion of Ukraine's cultural landmarks. Despite certain limitations, such as a focus on recent literature and an emphasis on Ukrainian and English language sources, the study provides a robust contribution to scholarly discourse by identifying new challenges and opportunities in developing cultural heritage through digital technologies. Therefore, future research should focus on a global study rather than on regional areas of cultural digitalisation.

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Peculiarities of regional development under martial law: State and administrative aspects

Peculiaridades del desarrollo regional bajo la ley marcial: Aspectos estatales y administrativos

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Abstract

Considering the conduct of state policy in the conditions of the protracted Russian-Ukrainian war, it is important to characterize the main aspects of its development through the prism of the peculiarities of sustainable regional development. The purpose of the research is to determine the peculiarities of regional development in the realities of wartime based on the study of state-management aspects. The study is based on the analysis of modern works and reports of international organizations. Data collection was carried out in stages: first, a search was made for the main documents and reports of international organizations, then a search for scientific literature for the study was carried out. In general, such research methods as thematic analysis, categorization, comparative analysis, and graphic method were used. The results of the study demonstrated the effectiveness of the use

Resumen

Considerando la conducción de la política estatal en las condiciones de la prolongada guerra ruso-ucraniana, es importante caracterizar los principales aspectos de su desarrollo a través del prisma de las peculiaridades del desarrollo regional sostenible. El objetivo de la investigación es determinar las peculiaridades del desarrollo regional en las realidades de tiempos de guerra a partir del estudio de los aspectos de gestión estatal. El estudio se basa en el análisis de trabajos e informes modernos de organismos internacionales. La recolección de datos se realizó por etapas: primero se realizó una búsqueda de los principales documentos e informes de organismos internacionales, luego se realizó una búsqueda de literatura científica para el estudio. En general, se utilizaron métodos de investigación como análisis temático, categorización, análisis comparativo y método gráfico. Los resultados del estudio

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of digital systems in regional development strategies improving the level of intellectual security, identified the peculiarities of planning and operation of regional budgets under martial law. Digital systems have proven effective in enhancing regional development strategies and improving intellectual security. They enable better planning and operation of regional budgets, even under martial law, by providing real-time data and facilitating communication among stakeholders. In the conclusions, it was noted that the military operations had a significant impact on the system of public administration and needed further adjustment in connection with overcoming the consequences of the military operations.

Keywords: Russian-Ukrainian war, martial law, public administration, national security, sustainable development.

demostraron la eficacia del uso de sistemas digitales en las estrategias de desarrollo regional, mejorando el nivel de seguridad intelectual, identificaron las peculiaridades de la planificación y el funcionamiento de los presupuestos regionales bajo la ley marcial. Los sistemas digitales han demostrado ser eficaces para mejorar las estrategias de desarrollo regional y mejorar la seguridad intelectual. Permiten una mejor planificación y operación de los presupuestos regionales, incluso bajo la ley marcial, al proporcionar datos en tiempo real y facilitar la comunicación entre las partes interesadas. En las conclusiones se observó que las operaciones militares tuvieron un impacto significativo en el sistema de administración pública y necesitaban ajustes adicionales para superar las consecuencias de las operaciones militares.

Palabras clave: Guerra ruso-ucraniana, ley marcial, administración pública, seguridad nacional, desarrollo sostenible, seguridad intelectual.

Introduction

The Russian aggression against Ukraine has opened a new page in the life of the Ukrainian state mechanism related to ensuring social, military, legal and administrative stability. Based on the experience gained, it is possible to identify certain aspects that are of particular importance in times of crisis. This experience may be relevant for other countries, as it demonstrates the vulnerabilities of the public administration system in the face of challenges related to both war and long-term emergencies. Under these conditions, the study of the specifics of regional development makes it possible to plan the work of individual regions for the effective planning of actions of larger regions, to coordinate the state regional policy in many areas, to ensure sustainable regional development and the security of the population with regard to the problems connected with armed aggression and its aftermath.

At the same time, the present reality of military events in Ukraine has revealed the problem of the effectiveness of state and administrative actions in the restoration of the damaged areas, the progressive re-integration of the areas temporarily occupied by the hostile forces, the optimisation and search for internal resources for further developing them. Such actions should be based on data on destruction, type and extent of civilian resettlement, relocation of production, etc. In the context of the war on terror, the

centralisation of public administration is becoming more and more important, highlighting the need to develop public administration policies.

The issues of further research, taking into account the experience already gained and its reception in the scientific literature, are relevant in the field of public administration, provision of quality medical and educational services, administration and search for the necessary management solutions aimed at reconstruction and reintegration of war-torn territories and the specifics of working with the displaced population, relocated industrial facilities, etc.

The purpose of the article is to analyse the peculiarities of regional development under martial law through the prism of public administration aspects. The realisation of this goal involves consideration of the following issues: characterisation of the impact of hostilities on the public administration system, consideration of the effectiveness of digital management systems and service provision under martial law, and determination of the peculiarities of regional budgeting. Thus, the structure of the article consists of an introduction, a literature review, key aspects of regional development in the context of war, a discussion of the results and conclusions.

Literature review

Modern scholars have explored various aspects of the impact of war on the development of public administration in the international context. In particular, Ba Abbad (2024) presents a valuable study of the main challenges and difficulties caused by war based on the analysis of the problem of implementing local public administration in countries where military operations are underway. The authors focused on the analysis of Yemen. In general, modern studies have shown that countries affected by war may face various rare problems that generally affect different governance systems (Leheza et al., 2023; Vasylieva et al., 2020a; Bevz & Stadnyk, 2023). The consequences of wars or conflicts go beyond humanitarian crises, in particular, they disrupt centuries-old governance mechanisms and structures, undermine the capacity of state institutions, and create major obstacles and difficulties for the effective operation of state institutions (Hudyma, 2022; Oneshko et al., 2022).

Bozhok (2018) provides the theoretical basis for this paper, as the author has formulated the basic principles of administrative culture development in Ukraine. Dragan, Yermakova, Chvaliuk, Kurchin and Karagodin (2020) identified the impact of corruption on public administration through the lens of studying certain psychological aspects of corruption in Ukraine. Gasik (2023) demonstrates potential ways of further development of the Ukrainian public administration system despite current challenges and threats. Khadzhyradieva, Slukhai and Rachynskyi (2020) describe the problem of developing public administration in Ukraine in accordance with modern European norms and standards. However, the authors described the main problems without identifying potential opportunities and ways to overcome them.

For this study, it is also important to study the experience of other countries in regulating the system of state and public administration (Ba Abbad, 2024; Bobro, 2024). While the work of Ba Abbad (2024), as mentioned above, was mainly concerned with the realities of Yemen, Sahil Huseynov (2023) presented a detailed study of the problems faced by the local self-government in the Republic of Azerbaijan.

At the same time, Drozd, Kobzar, Romanov, Hryhorii and Pohoretskyi (2022) presented certain aspects of the development of law through the prism of analysing the challenges caused by military operations. However, this study focuses on national levels, which is a limitation for interpretation. While contemporary authors have mainly focused on local governance features, this study aims to characterise governance at the level of regional development and delve into some general trends that will help overcome the above limitations. However, the problem of implementing public administration in wartime has not been fully explored, and given the changing landscape of hostilities, this issue requires more detailed study. Therefore, this issue will be addressed in this article.

Methodology

This study aims to identify certain public administration aspects in wartime. In view of the main objectives of this work, the methodological basis of the study is formed on the basis of scientific papers and reporting data of modern international organisations, in particular, the Fragile State Index Annual Report.

Data collection

The data collection was carried out in stages: first, the main relevant documents and reports of international organisations were found, and then the main literature for the study was searched. The literature search involved the use of certain specific keywords (as well as their synonyms) and entering them into Google Scholar. The date range was strictly defined as 2018-2024 (see Table 1).

Table 1.
Key words of the study

Keywords.	Similar expressions
Public administration aspects	Public-management aspects, power aspects of management, state-legal aspects, public-organisational aspects.
Public administration	Power, public administration, state apparatus, power structures, public authority, public resource management, public leadership, government.
Martial law	Military realities, war, martial law, martial law, Ukrainian-Russian war, conflicts, war-affected areas, conflict-affected areas.

Source: Compiled by the authors

Initially, almost 595 results were found (given the relevance of the topic and the strictly defined date range from 2018 to 2024). After analysing the main abstracts and keywords, 102 items were selected. After this brief analysis, the main results were examined and 34 literature items were selected.

The criteria for including scientific papers were as follows:

1. Relevance: only contemporary works from 2018 to 2024 were selected.
2. A special emphasis on countries affected by war: the focus is mainly on Ukraine, but works that highlight the role of war for public administration in other countries are also taken into account: Afghanistan, Yemen, Brazil, etc.
3. Availability of a comprehensive methodological framework
4. The main focus of the works was to be on public administration, or on its individual manifestations.

These selected studies made it possible to characterise general trends in public administration.

Date Analysis

Several research methods were used: thematic analysis, categorisation, comparative analysis and graphical method. Based on the thematic analysis, the main trends in public administration in wartime are identified. After that, the selected trends and aspects were coded and categorised. The results are visually presented using the graphical method. On the basis of comparative analysis, the results of the study are compared with the works of other contemporary scholars, similar and different views on the analysis of this problem are identified. The research was carried out in compliance with ethical rules in the selection, interpretation and interpretation of scientific literature. The authors aimed to achieve maximum objectivity and impartiality.

However, it should be acknowledged that such a methodological approach may have drawbacks, in particular, subjectivity in highlighting the main problem of the article.

Results and discussion

To study the problem of implementing public administration decisions, it is important to take into account statistical indicators. The Fragile State Index allows us to assess the effectiveness of public administration, the level of its vulnerability to certain threats of existing wars or conflicts, as well as the ability to assess the main risks of the country's collapse. Thus, the calculation of the Fragile State Index is important, as it can determine certain aspects, in particular, the main parameters of state security, the formation of the security environment, the role of authorities in its functioning and preservation, etc.

A rise in the Fragile State Index implies a decline in state security. Fragile State Index calculated for Ukraine and its European neighbours: Romania, Poland, Hungary, Slovakia, and Moldova in 2010-2023, suggests that the European Union states have significantly lower Fragile State Index scores than the states at war: Ukraine (68.6-96) and Russia (73-80.7). In Belarus, the fragility index is 67.8-69.9, which is because the country is Russia's ally in the war, but not so demonstrative (Shchokin, Soloviov & Tantsiura, 2023). In Moldova, the Fragile State Index corresponds to 65-67.4 (Figure 1).
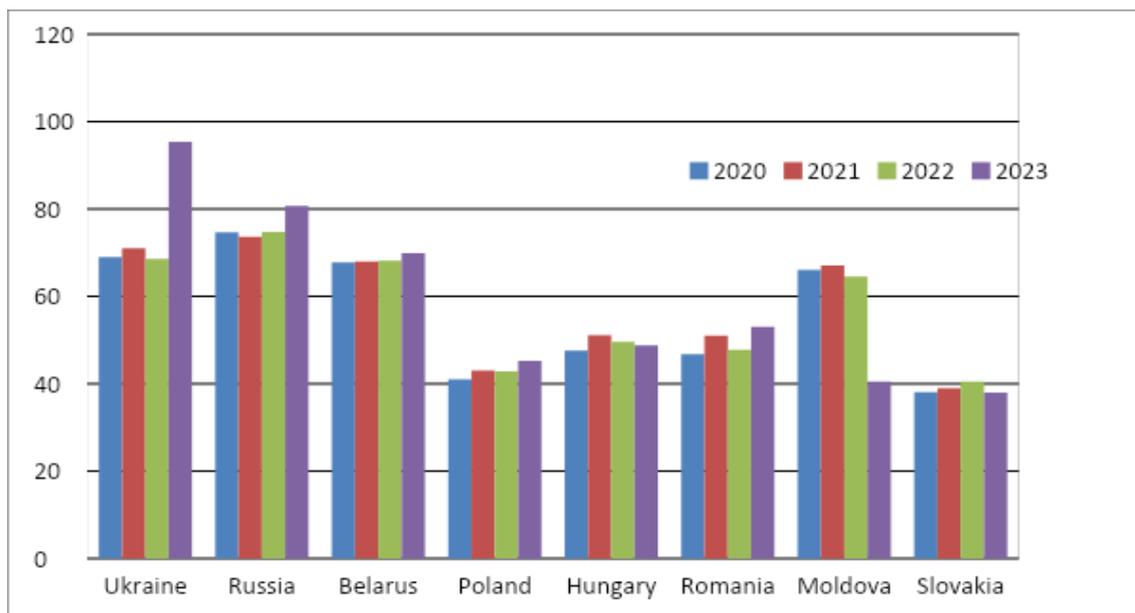
Figure 1. Indicators of the Fragile State Index dynamics.
Source: adapted from Shchokin, Soloviov & Tantsiura (2023).

These aspects of the dynamics of the index in these countries indicate differences in the ability of public administration bodies to maintain the optimal quality of state security. Obviously, the European Union countries have a higher level of public administration performance (Malachynska et al., 2022; Mudrak et al., 2019). However, these indicators also demonstrate the directions of development of the country's governance, and do not mean that the governance system is not developing. On the contrary, in some aspects, this system has been reformed and developed during the war.

The provision of basic administrative services has been adapted to the realities of war, including through government decisions on the extraterritoriality and urgency of their provision, non-use of information systems in case of temporary lack of access to it, and the introduction of a digital services system (improvement of the Diia application). Thus, such decisions have had an impact on ensuring the sustainability of the administrative service delivery system through the prism of security and accessibility. As of 2023, almost 800 Administrative Service Centres provide continuous information and services to citizens (Pavlovych-Seneta, 2022).

In addition, there are more than 3,000 access points to administrative services in Ukraine. The introduction of electronic public services through the Diia app in April 2022 has reduced the number of physical applications. In general, the capacity of public administration is based on the human resources of the civil service, which was also affected by the war. In particular, as of 2022, the number of civil servants working as civil servants was more than 166,000. At the same time, the number of civil service employees located in the areas occupied by the occupier was almost 6,000 (Pavlovych-Seneta, 2022).

It is worth noting that since the large-scale invasion, some civil servants have been unable to perform their functions at their workplaces, so they have started working remotely. In order to qualitatively adapt the civil service management structure in 2022, the government adopted the document "Some issues of organising the work of civil servants and employees of state bodies during martial law", which regulates the main problems of remote work of civil servants (see Figure 2).
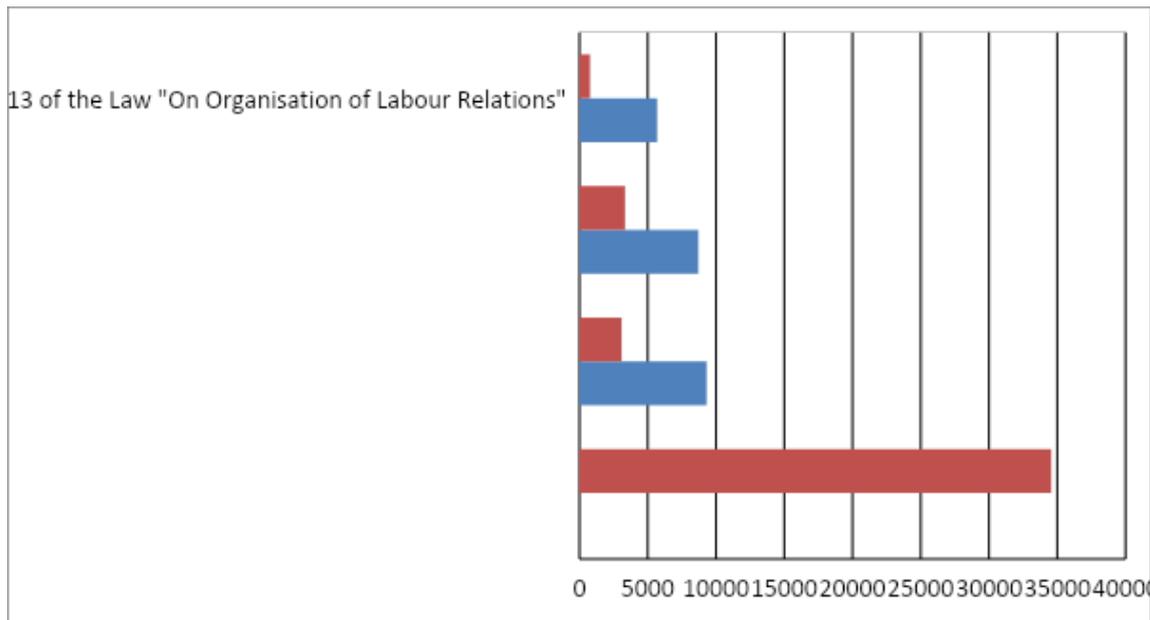
Figure 2. Employees in the civil service management structure.
Source: Izha & Kurnosenko (2023).

Thus, despite some risks of war, in 2022 Ukraine continued to reform the civil service, focusing on the quality of human resources, the process of optimising the selection and development of certain competencies of employees, albeit in the form of internships, and the introduction of distance work technologies (Sydorenko, 2024; Lutsiak et al., 2020). These measures collectively contribute to the intellectual security of Ukraine by safeguarding its human capital, which is a key asset in any nation's sustainable development and resilience against external threats.

Researchers have repeatedly analysed the peculiarities of organisational and resource support for regional development through the prism of decentralisation processes (Onats, 2020). Using the available analysis materials, it can be determined that in Ukrainian realities, the main prospects for the development of regions and local communities are determined primarily by the available natural, material, financial, and labour resources, as well as by the established mechanisms for their use. An important factor for the development and realisation of the existing potential of individual communities is the factor of their active growth, since almost all available types of resources generally form the resource base of the territories and will be the main ones for further economic and social development of local territorial communities.

Researchers have also identified that the key prerequisites for using the potential of administrative territories (and thus guaranteeing

their sustainable development) are social mobilisation, which allows coordinating actions to provide relevant administrative services to citizens, uniting them around addressing the current needs and challenges for the development of the territories where they live (Smolych et al., 2018; Mazur et al., 2023). The Ukrainian administrative-territorial reform, which has been implemented since 2015, has had a significant impact on increasing the material resources and financial competitiveness of individual communities in terms of their overall capacity growth.

At the same time, Russia's full-scale aggression in Ukraine, which began in 2014 and entered a new active phase in February 2022, has affected a number of regional development issues: the destruction of infrastructure facilities, including energy and civilian ones, the displacement of a large number of civilians and a general trend towards a decrease in population (especially among working-age citizens), the destruction of enterprises and production facilities, which creates obstacles to further economic and social recovery, which will have an impact on

An important problem of regional development under martial law is budget revenues and budget equalisation. In the Ukrainian reality, as in many other countries, there is a phenomenon of differentiation in the levels of socio-economic development of different parts of the country, concentration of tax revenues and the tax base, and unevenness in the expenditure system that

exists in the environment of local budgets (Vyprytskyi & Makhova, 2023; Kozlovskyi et al., 2020). The importance of equalisation of budget revenues in Ukraine has long been primarily driven by the need to achieve the same levels of provision in different oblasts per capita.

Due to the peculiarities of regional development, budgeting is a significant component of the country's overall socio-economic development, which meets the general needs to improve the standards and quality of life of the civilian population, affects the rate of economic growth (or decline), and also influences significant structural changes in the economic system, determines the imbalance in opportunities for further state development (Zagurska-Antoniuk, 2020; Kubiv et al., 2020; Lysenko et al., 2024). However, errors in the formation of positive (optimal) indicators in the development of individual territorial communities had a negative impact on the overall growth of the Ukrainian economy. According to the researchers, the formation of the local budget system continues to be quite non-transparent for civil society (Kozlovskyi & Mazur, 2017; Dluhopolskyi et al., 2023). First of all, there is a lack of a coherent system for monitoring local financial markets, which would be relevant for finding additional resources to fill local budgets. Similarly, this problem does not allow investors or other international partners and creditors to effectively monitor local financial markets and the financial policies of regional communities.

Given the different volumes of tax revenues and the participation of individual regions and territories in the formation of the general budget of Ukraine, these indicators are unequal. In practice, some regions with higher tax revenues are also responsible for financing regions with lower tax collection rates, which is implemented through intergovernmental transfers. This results in the formation of separate "donor regions", i.e. administrative territories that bring much more benefit to the state budget, and "recipient regions", i.e. regions that receive much more funding than they contribute to the state treasury.

Russian aggression has only exacerbated this trend, turning it into a dangerous challenge - Russian troops have also attacked "donor regions", which has significantly reduced the amount of state revenues, including to local budgets. Opportunities for financial development of the regions became even more limited, which required the use of certain public administration decisions. First of all, it was decided to relocate certain production facilities to the safe zone,

which preserved production potential and, accordingly, promising opportunities for tax revenues (Kuzheliev et al., 2023; Lavrov et al., 2022). The system of allocating funds for education and healthcare was also revised, and now they are allocated not so much based on the total population as on the ability to actually provide services. It is said that the funds "started to move" together with the consumers of public services, which opened up opportunities for optimising expenditures.

Unfortunately, the sequestration of regional budgets was not without consequences, as the military support of the Armed Forces of Ukraine also became a major obstacle to regional development. The inability to reallocate funds from "donor regions" led to the need to create a system of targeted grant support, which made it possible to raise funds for specific projects with a minimum degree of risk. The proposed public administration solution opened up opportunities for a certain normalisation of Ukraine's financial system, together with funds from international partners.

The results of the study demonstrate that under martial law, there is a need to make important public administration decisions that make it possible to counter the threats and challenges of military instability. In particular, the process of adapting the provision of administrative services has taken place, facilitated by the active use of digital information transfer systems. The actualisation of this area (primarily through the use of the resources of the Diia digital application) has made it possible to ensure the sustainability of the administrative service delivery system. This conclusion confirms the opinions of scholars regarding the progressive use of digital administrative service providers (Melnyk, 2023; Vdovichen et al., 2023), as well as the next important evolution of the use of artificial intelligence systems in this area (Sofilkanych et al., 2023). In general, this confirms the opinions of scholars on the further evolution of legal relations in society (Maraieva, 2022), which will be determined by the tangible digitalisation of public life.

The results also indicate the correctness of the conclusions of scholars on the importance of the correct implementation of long-term strategies that form the basis of the functioning of public administration in the field of regional development (Yusufzada & Xia, 2019; Vasylieva et al., 2020b). This made it possible to amend the existing strategies, which to some extent alleviated the negative effects of the hostilities.

In addition, the reform of the budgetary sector, together with the assistance of international partners, has ensured the resilience of communities and new solutions in crisis management (Lytvyn & Shevchenko, 2022; Shpykuliak & Mazur, 2014). At the same time, it is difficult to agree with the statement that Ukraine has a low level of security environment, which also negatively affects the ability to implement administrative and public functions (Shchokin et al., 2023). Undoubtedly, during active hostilities, the level of the overall security environment decreases, so it is advisable to compare the indicators of Ukraine at war with those of peaceful European countries, but at least with the pre-war data, rather than the indicators of Ukraine at war.

Undoubtedly, the proposed study has methodological limitations. First of all, it focuses on the Ukrainian experience, although the challenges of the administrative system of state governance under martial law are typical for other countries (primarily Asia and Africa). It is also worth noting that the consequences and results of Russia's aggression against Ukraine have not been established (as military operations continue). For this reason, the results obtained are preliminary, in particular, with regard to the impact of the actions taken on regional development and the measures taken to improve it.

Conclusions

Thus, the Ukrainian government has been quite active in reforming the civil service and developing local and territorial communities. First of all, since 2022, transformations in the civil service have continued, taking into account the quality of staffing and optimising the selection of civil servants. The adoption of digital technologies, which facilitated remote internships and online work, has not only advanced the intellectual security of the nation but also ensured the continuity of government operations during the military conflict. In the context of military operations, decentralisation of administrative management was further developed. This enabled regional communities to deepen their ability to use resources. In addition, it was noted that the key factor for the development of communities was their active growth, which formed the resource base for further economic and social development. Moreover, the international partners bring valuable expertise and technical support to help regions navigate challenges associated with martial law. This expertise may encompass various areas, including conflict resolution, governance reform, economic recovery, and public administration. In addition, the international partners often engage in capacity-building efforts aimed at strengthening the institutional capacity of state and administrative bodies in regions under martial law.

In the context of military operations, active cooperation with international partners brought results, as the state budget deficit and sequestration, together with military destruction, had a negative impact on the life support system of regional communities. By revising certain established modes of operation, when donor regions financed expenditures in less successful regions, targeted support was provided for project implementation. As a result, as the study shows, it was possible to direct the necessary support to the regions and, in general, to counteract the effects of hostile aggression.

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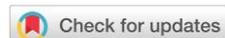
Anti-marxist polemics in Mykola Rudenko's novel-treatise "Formula of the Sun"

Антимарксистська полеміка в романі-трактаті Миколи Руденка «Формула Сонця»

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Abstract

The research conducted by the Sumy branch of the Serhii Podolynskyi Scientific Society delves into the distinctive artistic legacy of the renowned Ukrainian writer Mykola Rudenko. This study sheds light on Rudenko's integration of ideas from the Ukrainian school of physical economy, which stood in stark contrast to Karl Marx's political economy. Mykola Rudenko, known for his literary prowess, often employed his fictional works to propagate his scientific, economic, and philosophical theories. The treatise "Formula of the Sun", despite its limited recognition in 20th-century Ukrainian literature, holds a distinct place deserving comprehensive exploration. This novel not only showcases Rudenko's literary craftsmanship but also provides a platform for dissecting the literary discourse of the time. Through a combination of structural, narrative, and polemical elements, Rudenko articulates his worldview within the framework of physical economy. This study endeavors to elucidate the evolution of physical economy as a counterbalance to Marxian

Анотація

Представлено результати літературознавчого дослідження членів Сумського осередку Наукового товариства імені Сергія Подолинського, що має на меті розкрити унікальність художнього доробку видатного українського письменника Миколи Руденка і на цій основі ознайомити із ідеями представників української школи фізичної економії (С. Подолинський, В.Вернадський, К. Тімірязєв, О. Чижевський, М. Руденко), яка була антагонічним вченням до політекономії Карла Маркса. Оскільки Микола Руденко був видатним українським письменником і водночас розвивав ідеї фізичної економії, він досить часто використовував свої художні твори для популяризації власних наукових, економічних, філософських гіпотез та досліджень. Оскільки в українській літературі XX ст. трактат не здобув широкої популярності, «Формула Сонця» Миколи Руденка набуває унікальності й заслуговує на глибоке вивчення з ряду причин: з літературознавчого погляду (структура, сюжет,

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economics and to analyze its impact on Rudenko's prose, as evidenced by "Formula of the Sun". Employing methodologies ranging from analysis and synthesis to a systematic and hermeneutic approach, the research aims to unravel the intricate interplay between literature and economic theory in Rudenko's work.

Keywords: Karl Marx, Mykola Rudenko, political economy, novel-treatise, physical economy.

полеміка) та з точки зору вивчення українського літературного дискурсу XX ст., що змусили видатного українського письменника вступати у полеміку у художньому романі, щоб викласти свою світоглядну позицію. Мета дослідження – показати розвиток фізичної економії як альтернативи політекономії Карла Маркса, розкрити, як це позначилося на прозі письменника на прикладі роману-трактату «Формула Сонця». У дослідженні використано загальнонаукові (аналіз, синтез і порівняння) та літературознавчі методи (системний підхід, герменевтичний та ін.).

Ключові слова: Карл Маркс, Микола Руденко, політична економія, роман-трактат, фізична економія.

Introduction

Mykola Rudenko is known to the world primarily as a Ukrainian poet and prose writer, public person, and founder of the Ukrainian Helsinki Group, the first legal organization in the totalitarian USSR to fight against human rights violations. "The creation of the group is connected with the signing by the Soviet government of the Helsinki Agreements, which became the Final Act of the Conference on Security and Cooperation in Europe" (Stus Center, (s.f)). Today, there is a significant number of scholarly works and publications covering the human rights activities of Mykola Rudenko. As for the literary heritage of the artist, researchers are primarily interested in his poetry, ignoring works that highlight the ideas of physical economy. Therefore Mykola Rudenko's poetry and prose, and his human rights activities, have been analyzed, described and documented in detail, and works on the problems of physical economy need to be properly studied. The writer's work in the field of physical economy, his model of the architecture of the universe, and the atypical and unique parallel presentation of the author's scientific research in his own works of fiction remain poorly studied, making the writer's artistic heritage a platform for disseminating the ideas of the Ukrainian scientific school of physical economy, founded by Rudenko. The ideas of the representatives of the Ukrainian school of physical economy are a completely avant-garde phenomenon and have not been studied in world science. Among the most prominent representatives of the Ukrainian school of physical economy are Podolynskyi S., Vernadskyi V. and Rudenko M.: "As for the Ukrainian school of physical economy, it should be emphasized that S. Podolynskyi founded it, V.

Vernadskyi made an important step in its development, and M. Rudenko developed their ideas, outlined the theoretical foundations of the school, defined it, and formulated the physical economy of the universe" (Vorobiova, 2019, p. 90). The ideas of Ukrainian scientists were far ahead of their time and are of interest for modern studies. We made the first attempt at a detailed analysis of Mykola Rudenko's novel, in which the author presented his scientific hypothesis.

Theoretical framework

Since the creative heritage of Mykola Rudenko reflects an entire era and includes a whole palette of literary genres, it has been studied by more than one generation of scholars and literary critics. We see three separate vectors of research into the works and activities of Mykola Rudenko: 1) fiction; 2) scientific works; 3) public (human rights) activities of the writer. The difficulty of studying the work of Mykola Rudenko lies in the fact that he included serious scientific hypotheses in his fiction. This complicates the research, as it requires the efforts of scholars from various fields of science to create a holistic picture of Mykola Rudenko's worldview. Therefore, today, scholars interested in Mykola Rudenko's work are studying a small part of his works.

The writer's life was studied by I. Vlasenko (Vlasenko, 2007), E.Sverstiuk (Sverstiuk, 2013), and others in order to review the literary and political discourse of the twentieth century and to investigate Mykola Rudenko's contribution to the development of Ukrainian literature. Their works allowed us to understand the spirit of the era and the reasons for the writer's worldview revolution.

A valuable source of studying the writer's life dominants is his memoir novel "Life is the greatest miracle" (Rudenko, 2013), which, in addition to the memoirs of a phenomenal personality, contains appendices containing letters, texts of speeches, and speeches by Rudenko, documents related to the organization of the Ukrainian Helsinki Group, which he created. In our opinion, the most extensive study of Mykola Rudenko's poetry is the work of H. Vivat (Vivat, 2013). H. Vivat analysed Rudenko's poetry and defined science as a characteristic characteristic of the poet's lyrics - 'poesia doctus' (Vivat, 2013). Other researchers have focused on a particular aspect of the work, such as the language issue or elements of ecocriticism in novels.

Scientific works of L. Vorobiova (Vorobiova, 2019), R. Nakonechnyi, A. Kopytko (Nakonechnyi, & Kopytko, 2013) made it possible to study the unique philosophical and economic concept of Rudenko and to comprehend the work of other representatives of the Ukrainian scientific school of physical economy.

Researcher L. Hryniv and her colleagues focused on the development of Ukraine's agricultural sector based on the works of representatives of the Ukrainian school of physical economy (Hryniv, & Nazarkevich, 2014).

The scientific research of these and many other researchers proves the uniqueness of Mykola Rudenko's work and its relevance in addressing the global problems of our time.

Unfortunately, it should be noted that the range of scientific research on M. Rudenko's legacy as a representative of the Ukrainian scientific school of physical economy and his scientific research in the field of cosmology, both during the times of the ban on the writer's and scientist's works and now, have been and remain insufficiently studied and popularised. Understanding that it is necessary to study Mykola Rudenko's work comprehensively in order to reveal the scale of his views, we analysed the novel "Formula of the Sun"not only from a literary point of view, but first of all, we revealed the ideas that the writer tried to convey to the reader in order to solve the global problems of our time.

Methodology

Since until now, Mykola Rudenko's novel 'Formula of the Sun' has not been the subject of research in either literary studies or political science, nor has it been analysed in the context of global issues of our time, we decided to explore its role in both the literary and general civilisational discourse. To achieve the goal of our study, we used general and special research methods. General scientific methods of research (analysis, synthesis, comparison) allow us to assert that so far there have been no attempts to study the novel-treatise by N. Rudenko 'Formula of the Sun' as a platform for popularising the ideas of representatives of the Ukrainian school of physical economy. The analysis of the scientific literature has shown that Mykola Rudenko is indeed a successor of the ideas of Serhiy Podolynskyi and Volodymyr Vernadskyi and is a representative of the school of physical economy. The analysis and synthesis of literary criticism allows us to assert that the authors propose a new approach to the study of Mykola Rudenko's novels - it is necessary to study the writer's works from the point of view of scientific hypotheses presented in the novels. Therefore, the authors have used a systematic approach to the study of the writer's literary and intellectual heritage, because this is the only way to understand the scale of the novel's ideas, since the work contains a political, economic, social and environmental structure that must be studied in unity. The historical-functional method made it possible to study and predict the place and role of the writer's heritage in Ukrainian literary discourse. Since Mykola Rudenko's work covers almost the entire turbulent twentieth century, it was necessary to investigate how the writer became a dissident in the USSR and came to study political economy and develop ideas of physical economy, which, in turn, are in harmony with the ideas of the physiocrats. The historical and genetic method of research was used to study the genesis of Rudenko's works, the prerequisites for the emergence of his ideas, and fundamental changes in the perception and interpretation of the writer's heritage because of changes in public consciousness and the study of the place of his works in the Ukrainian literary process and science. Therefore, the cultural and historical method was applied to study the influences of historicism, biographism and the connection between Mykola Rudenko's novels and scientific works and the environment that influenced their creation. It was found that it was the political situation in the USSR that led to the worldview crisis of the already popular Mykola Rudenko

and led to a reassessment of values in the life of the famous Ukrainian artist. After 1963, Mykola Rudenko began to study economics, political science, and cosmology, which influenced his work. A detailed study of the reflection of the writer's ideas in the field of physical economy in the novel would have been impossible without the use of special literary methods and techniques. The hermeneutic method was used to understand and interpret the scientific and artistic heritage of M. Rudenko (in particular, the work "Energy of Progress" and the novel "Formula of the Sun") and was used for a comprehensive interpretation of the author's ideas. As we can see, the novel has a scientific basis in the form of the author's hypotheses, which need to be interpreted before reading the novel itself, so that the motives for writing and the main ideas of the work are understood. The authors have made a very brief but necessary presentation of the main provisions of Mykola Rudenko's scientific works in order to understand the direction of the study of the fiction novel 'Formula of the Sun', since the writer in his fiction novel presented serious scientific ideas that are of interest to researchers in the third millennium.

Results and discussion

For Mykola Rudenko, exposing the fallacy of Marx's theory of surplus value and popularizing the ideas of the Ukrainian scientific school of physical economy, defining a national development strategy was a life mission. Today, Marx and his doctrine are viewed from different points of view (Bilyi, 2018). To understand the man who started out as a poet of the socialist realism era and came to physical economy as an antagonistic alternative to Marxist political economy and began to point out the mistakes of Karl Marx in an era when the authority of the German political economist was indisputable, it is worth taking a quick look at the path that the Ukrainian writer took.

Thus, the aspiring poet Mykola Rudenko immediately became popular at the behest of the Soviet party ideologue Lazar Kaganovych, Secretary of the Central Committee of the Communist Party of the Soviet Union (Shapoval, 2007), when he criticized the nationalism of the prominent Ukrainian poet Maksym Rylsky: "instructed by Kahanovych to speak at a meeting of young writers with a critique of M. Rylsky's poem "Journey to Youth" (Rudenko, 2013, p. 237). Rudenko owed his career to the patronage of the top leadership of the USSR Communist Party and, of course, fully shared the party ideology. The Twentieth C.P.S.U.

Congress (14-25 February 1956), where Nikita Khrushchev's closed report "On the Cult of Personality and Its Consequences," marked a deep turning point in Rudenko's worldview and, as a result, in his life. To understand the origins of the cult of personality, Rudenko studied the "Capital" (Marx, 1982) and many other works and found errors in Marx's theory of surplus value, which was the basis of the Soviet economic system. Rudenko's study of the origins of party ideology and the principles of economic development in the USSR led him from Karl Marx's "Capital" to Fr. Quesnay "Economic Table" (Quesnay, 1960) and later to Serhiy Podolinsky's "Human labour and its relation to the distribution of energy" (Podolynskyi, 2000). Seeing the difference in the approach to the development of the economy, ecology, the search for alternative energy sources, and the understanding of man's place in the world, Mykola Rudenko came to criticize the Marxist-Communist ideology and methods of state administration in the USSR, which resulted in his being tortured in a psychiatric hospital (a popular method of combating dissent in the USSR), and later serving 12 years in prison, and his works being withdrawn from sale and libraries. As we can see, Mykola Rudenko came to criticize the Communist Party and define Ukraine's role in global geopolitics when thoughts about the falsity of the communist course were persecuted, and there was no demand for an independent Ukrainian state even in Ukrainian civil society itself.

Party persecution did not stop the writer. He continued to work on finding ways to develop Ukraine and civilization and created works of fiction in which he first tried to encode his ideas to avoid communist censorship. After the 1970s, he began to openly expose the falsity of Marxist ideology and the crimes of the Communist Party and called on the Ukrainian nation to begin defending its rights and freedoms. The result of the writer's search and the most important work of his life was "The Energy of Progress" (1972-1974) (Rudenko, 2008), which was presented in 1974 at the Moscow apartment of Academician Andrei Sakharov. Since the author used his scientific work as a basis for writing the fiction novel "Formula of the Sun" (Rudenko, 2007), we consider it necessary to outline the main differences between the political and physical economies highlighted in "The Energy of Progress" so that the motives for writing the novel, its main ideas, characters, and plot development can be understood.

Rudenko began "The Energy of Progress" with a study of the nature and functions of money and its impact on the individual and the state as a whole. Unlike Karl Marx, who saw money as a means of fulfilling needs, M. Rudenko assigned money the role of relative value.

Table 1.
The role of money in the interpretation of M. Rudenko and K. Marx

The role of money in M. Rudenko's "Economic Monologues"	The role of money in Marx's "Capital"
"*Money has never been anything but the equivalent of solar energy flowing through economic arteries*" (Rudenko, 2008, p. 218).	"*It functions as a general measure of value, and it is primarily through this function that gold - this specific equivalent commodity - becomes money*" (Marx, 1982, p. 52).

Marx and Rudenko also differed in their understanding of the nature of substance and matter. The writer interprets substance as the basis of everything, that is, matter: "Substance is not matter – it is only a relative state of matter... matter is the substance of everything that exists and happens" (Rudenko, 2008, p. 210). Therefore, he insisted that the concept of "social substance" was artificially invented by Marx because such a substance does not exist in nature: "Since the 'social substance' is not matter, it is merely a subjective idea of K. Marx" (Marx, 1982, p. 214).

K. Marx explained the "substance of value" as derived from the "substance of labor". What, in M. Rudenko's opinion, was Marx's mistake? First, human labor does not create energy; it is possible only if a person uses the energy received from Nature in the form of food. M. Rudenko argued that the value created by the labor of millions of industrial workers is relative.

Table 2.
Substance of value according to M. Rudenko and K. Marx

Substance of value according to M. Rudenko	Substance of value according to K. Marx
"*Therefore, when we talk about the substance of value, its definition by labor is not only questionable but also generally wrong. In this case, we are abusing the term "substance" - the greatest of all human concepts*" (Rudenko, 2008, p. 215).	"*So, use value, or a good, has value only because it embodies, or materializes, abstractly, human labor. How can we measure its value? Obviously, by the amount of labor contained in it, this substance that creates value*" (Marx, 1982, p. 34].

As we can see, M. Rudenko's and K. Marx's interpretation of the concepts of substance, substance, "social substance" and "substance of labor", etc. is a clear demonstration of the fundamental difference between political economy and physical economy. Having realized this difference, one can understand why the Ukrainian writer set out to create "Formula of the Sun".

In 1971, Mykola Rudenko submitted a completely atypical novel-treatise, "Formula of the Sun", to the Soviet Writer publishing house. The creation of "Formula of the Sun" occurred during the so-called "stagnation" period, characterized by the flourishing of the Communist Party's ideological propaganda, forced russification, and total control and censorship of culture and art. For review, the work was submitted to a Communist Party activist of the USSR, Doctor of Historical Sciences, Professor V. Malanchuk and Doctor of Philosophy, Professor B. Kublanov, who turned

Rudenko into an "enemy of the people", and the novel, which was intended to reveal the need for reforms in the state system, was not censored.

The author explained the reason for writing the novel-treatise in his memoirs "The life is greatest miracle": "The main thing I wanted to express was Formula of the Sun. This is how I called this problem, which covered the whole range of issues related to the origin of surplus value" (Rudenko, 2013, p. 466). "Formula of the Sun" was intended to highlight, first of all, the author's point of view on the source of absolute surplus value and to acquaint the reader with the achievements of the Ukrainian school of physical economy (in the novel, the author calls the representatives of physical economy Gnostics), which influenced the ideological concept and plot of the work – all the events of the novel revolve around one theme.

The form of a novel-treatise simplified the plot of the text as much as possible and made the subtext

transparent. This form was necessary for Mykola Rudenko to introduce material that reveals the achievements of the Ukrainian school of physical economy and the miscalculations of the political economy that underpinned the USSR economy. The text of the treatise, without requiring a stunning plot to depict the system of events, made the characters simple and polar, and some of the events of the work were predictable.

The events of the novel unfold in one simple storyline, which tells the fate of the scientific work of retired colonel Vasyl Horin. The story is told from the perspective of Sofia Horin, the widow of Vasyl Horin, who finds herself in a situation quite atypical for a Soviet sanatorium doctor: after her husband's death, the Russian Committee for State Security (CSS) tries to seize the three copies of the work from her in order to prevent the ideas of her deceased husband from being made public. Vasyl Horin's manuscripts became a test of resilience and courage for Sofia and her adopted son Serhii despite a powerful enemy in the form of a totalitarian communist state.

As a treatise, "Formula of the Sun" has semantic blocks, or thematic nodes, where a particular statement (Mudrak, 2019) is defended or developed. The author moves from one theme to another with the help of the novel's protagonist, Sofia Horin, who, after losing her husband, began keeping a diary. When she sat down to write down her notes, she did not record the economic state of the country or describe the state system. On the contrary, she sat down to write her diaries to organize her life through introspection. Gradually, the records turned into a full-fledged genre of documentary, because Sofia recorded only everything that characterized the era in which she lived. The description of her experiences becomes a true portrayal of social processes, the state system, and the political system in the USSR. Giving the novel a certain intimacy, the diary form smooth out the political acuity of Sofia's narrative and creates a complete illusion of the authenticity of the events described in the novel. Behind Sofia's biography, the writer hides the characteristics of the political system in the USSR at the time of the events of the novel, which fully falls under the signs of a totalitarian state and political power: the presence of a monopolist party that merged with CSS and the judiciary, the existence of a single ideology, the blocking of unwanted information by CSS and law enforcement agencies, state control over the life of the population, centralized planning of production and distribution of material goods, etc. (Bilyi et al., 2018).

After the end of the war, retired colonel Vasyl Horin spent more than a decade searching for ways to improve the living conditions of his countrymen, because although the country was gradually recovering from the war, the standard of living was not improving. Horin began to study the foundations on which the USSR's economy was based, realizing that the quality of life of citizens primarily depended on the state of the country's economy. The results of Vasyl's research were disappointing. He realized that the country's economy was developing in the wrong direction and that the moment would come when the USSR, which was huge in terms of territory, collapsed under the pressure of economic problems: "There is a time bomb in the foundation of our state. Believe me, Sonia, it is capable of causing no less disaster than an atomic bomb. Sooner or later, it will explode" (Rudenko, 2007, p. 305). Horin realized that, given the size of the country, the collapse of the USSR's economy could have a negative impact on the entire European continent and on the population of the enslaved people themselves, who would find themselves unwillingly on the ruins of a totalitarian state.

Not fully realizing that the Communist Party was the center of corruption in the state authorities and the development of the planned economy, Vasyl Horin began writing letters to the state authorities, trying to change the country's wrong course: "Vasyl thought that the Party had only two decades for perestroika" (Rudenko, 2013, p. 305). As we can see, Vasyl Horin's thoughts agree with the position of the author of the novel, which is highlighted in "The Energy of Progress" and in some scholarly articles, in particular, in the study "The Road to Chaos" (Rudenko, 2008). R. Nakonechnyi and A. Kopytko note that Rudenko's thoughts on the prospects for Gorbachev's reforms in the USSR, set out in "The Road to Chaos", proved prophetic: "Relying on Marxist theory, which detached man from the fundamentals of his being, subordinated him to the interests of production, in the opinion of this thinker, threatened a bloody future and a sharp increase in chaos in public life" (Nakonechnyi, & Kopytko, 2013).

Vasyl Horin called his research on the source of absolute surplus value the "Formula of the Sun". He argued that the generation of absolute surplus value is accompanied by a strong correlation between space energy, solar radiation, humus, and photosynthesis. Although these processes occur without human intervention, human labor plays a crucial role in generating absolute surplus value, just as a catalyst in a chemical reaction.

Thanks to useful human labor, conditions are created under which additional biological energy is generated: "**<…>** surplus product (and hence surplus value as its reflection) is born not just from social labor-in fact, they are born from nature, and labor only contributes to their birth" (Rudenko, 2007, p. 344).

Gradually, a struggle unfolded around the scientific work of an unknown retired colonel, who was not even an economist by education, dividing the characters of the novel into two antagonistic camps: representatives of the Communist Party (Yevhen Korobov, an employee of the Kyiv regional Committee of the Party; Petro Kulyk, Deputy Chief Physician of the Sanatorium; Yurii Smokovskyi, Third Secretary of the regional Committee; Later Secretary of the Central Committee of the Communist Party of Ukraine; Sofia's first husband and others) and advocates of physical economy (Sofia, her son Serhii, uncle Sashko, daughter of Yurii Smokovskyi Nina, head of the soil research house Karpo Osadchyi, agronomist Pavlo Mykhailovych).

If you take a superficial look at the retired colonel's discovery, you will not see any scientific novelty in it. Humanity has been working on the land for centuries, and today crop production as a branch of science has been highly developed. Then why did such a struggle unfold around Horin's work that people were ready to sacrifice their lives for the colonel's manuscripts, and the novel The Sun's Formula was declared "ideologically hostile" in the USSR?

Given the circumstances and the time when Horin attempted to make his discovery public, his work had the effect of a bomb. It was the second decade after the war (1961), and the USSR had already seen the results of Marxist political economy: the dekulakization of the Ukrainian countryside, the Holodomor of 1932-1933, forced Russification, degradation of agricultural production through a haphazard planned economy, destruction of productivity growth and economically unjustified mass political campaigns. During this period, the country developed its nuclear and missile capabilities and sent a man into outer space. Having spent more than a decade studying complex economic processes, Horin pointed out the mistake made by Karl Marx, the ideologue of the only official party and state political and ideological doctrine, the main pillar and justification for the power of the CPSU: "Marx made a mistake in identifying the sources of

surplus value! **<…>** It is wrong to explain its origin by the exploitation of labor. Quite the contrary: exploitation leads to the extinction of the sources of absolute value – then comes the famine, social chaos, destruction of the state foundations" (Rudenko, 2007, p. 305).

Horin disputed Marx's claim that industry is a solid foundation for economic development, insisting that the growth of absolute surplus value occurs only in the agricultural sector: "Marx knows something about the factory industry, but he knows nothing about the deep (i.e. substantial) nature of agriculture. Here he was mentally blind" (Rudenko, 2007, p. 345). Thus, Horin argued that the industrial worker does not create additional biological energy; he uses it because without energy there would be no labor as such, and Marx's surplus value is a relative surplus value because the absolute one is obtained only by farmers: "Now let's look at the work of the farmer: by throwing one grain of corn into the ground, he receives hundreds of new grains that did not exist in nature before. This is how more and more new biological energy is born on the globe, which provides for the work of millions of people" (Rudenko, 2007, p. 346).

Thus, the watershed between the two economic theories (political economy and physical economy) is the different understanding of the source of absolute surplus value. According to Marxist political economy, surplus value is created by the additional labor of the worker, which the capitalist appropriates, resulting in the rich from the exploitation of labor. Therefore, it is necessary to take away the surplus value from the capitalist and leave it to the proletariat, and to prevent the capitalist from returning it to himself, it is necessary to establish the dictatorship of the proletariat. This understanding of labor and labor relations caused the totalitarian USSR: "Nowadays, the apparatus of violence hardly buys labor anymore – it takes it with terror. It is profitable for it to create hundreds of thousands of concentration camps, because labor is absolutely nothing in them. The carriers of Marx's theory have the illusion that in this way they are bringing the construction of communism closer." (Rudenko, 2007, p. 326). A misunderstanding of the essence of economic processes contributed to the emergence of a huge network of concentration camps to obtain almost free labor from political prisoners, and with it, the surplus value, which was usually used for state expenditures. By building the state on Marx's political economy, the party aimed to destroy the peasantry as a class, because

gradually the peasant was to become a proletarian: "<…> the reduction of the rural population is certainly a progressive process." (Rudenko, 2007, p. 359). Thus, in his work, Colonel Horin pointed out and proved that Marxism is a false doctrine and that it is impossible to build the state's economy on a political economy: "The cornerstone of Marxism (i.e. Marx's theory of surplus value) he not only questioned but denied altogether. And he denied it quite categorically" (Rudenko, 2007, p. 350).

Horin's most acute point of contention is the need to develop freedom of enterprise and trade that work for capital: "This, in fact, is the channel of nature from which surplus value is born, it can rightly be called the energy of progress" (Rudenko, 2007, p. 351). Horin argued that bonded, planned labor and the unfair distribution of its results levelled the worker's motivation to work, and the village in such a situation generally declined. If you build up industry at the expense of the agricultural sector, as was done in the USSR at an accelerated pace during the five-year plans, the state will inevitably become poorer.

Horin concluded that the development of the economy of a land state requires a loving owner and freedom of capital. This was not the case in the USSR; instead, there was an imperfect party regulator that did not see or understand the principles of economic development behind the dry targets. Forced collectivization to eliminate the harmful bourgeois influence of private property depleted Ukrainian black soil and rural degradation: "The apparatus of violence takes away from the peasant the fruits of his labor to the last grain. Cattle breeding is in decline <…> This is how the time bomb laid by Marx in the granite foundations of our state looks like" (Rudenko, 2007, p. 326).

The study of the sources of absolute surplus value led Horin to criticize Capital: "As for Marx, he sinned gravely against the most important law of the universe – the law of conservation and transformation of energy. And for such sins, the Universe punishes mercilessly" (Rudenko, 2007, p. 510). The appeal to the law of conservation and transformation of energy, discovered by the founder of the Ukrainian School of Physical Economy S. Podolynsky, in his study "Human Labor and its Relation to the Distribution of Energy", introduces a different view of the development of economy and civilization from the Marxist view.

The innovation and originality of S. Podolynsky's concept is that he was the first philosopher and economic to analyze the types of energy on the planet and to point out that agriculture is tangential to the creation of absolute surplus value: "At present, we cannot but recognize that the amount of this energy is limited and is directly dependent on the vigor of the vegetation. But we also know that it is dependent on the amount of human labor applied to agriculture" (Podolynskyi, 2000, p. 275).

In the "Formula of the Sun", the writer shows the origin, formation, and development of the Ukrainian school of physical economy in a state dominated by Marxist Communist ideology that tried to destroy any alternative sciences. In his memoirs "Life is the Greatest Miracle", M. Rudenko recalled that the foundations of physical economy were the teachings of ancient Gnostics: "<…> its foundation was gnosis" (Rudenko, 2013, p. 397), so it is not surprising that the writer called the characters of the novel who shared Vasyl Horin's views Gnostics.

The Gnostics are the bearers of a new approach to economics, and their ideas are developing in harmony with the views of the physiocrats, whose ideologist was Fr. Quesnay and S. Podolynskyi, the founder of the Ukrainian school of physical economy: "<…> there was a rediscovery of the same economic laws. <…> but Quesnay discovered them from the earth's side, and Vasyl discovered them from the sun's side. Here a new quality emerges – a link to the Cosmos, to the natural science of the XXth century." (Rudenko, 2007, p. 452).

Synthesis of the ideas of physiocrats, S. Podolynskyi (Podolynskyi, 2000), V. Vernadskyi (Vernadskyi, 1989) and other allows us to look at Ukrainian black soil in a new way, through the eyes of gnostics, revealing its value for the development of the state and civilization: "For our black soils are no longer just earth minerals. These are, one might say, cosmic accumulations" (Rudenko, 2007, p. 451). Therefore, the state of Ukrainian villages and fertile soils was of particular concern to Vasyl Horin and the characters who shared his views, as Ukrainian black soil is a strategic resource for all mankind and a key to solving global civilization problems.

The first person to see in practice the negative results of industrial development at the expense of the agricultural sector of the economy was Sofia's uncle, whom she simply called Uncle Sashko. This is a collective image of a Ukrainian

peasant who has concentrated the mental traits of the Ukrainian nation: a good owner who loves his land and the work he does on it, who is honest, principled, and responsible. Uncle Sashko perceives the Universe through a pantheistic Christian worldview, which allows the peasant to combine new approaches to working on the land with land management, whose traditions are lost in the depths of time: "There is a great order! There is an order, brother, that nothing can break. This is called the laws of nature. Both in Heaven and on Earth" (Rudenko, 2007, p. 380). Uncle Sashko's love for the land could not be suppressed by planned, almost free, work on the collective farm. The experienced agrarian was concerned about the depletion of black soil because of the implementation of state procurement plans and consumerist attitudes towards natural resources. He calculated that if approaches to farming were not changed, at some point Nature would refuse to fulfil the ever-growing needs of the state: "How do we look at it now? We take what we need from it. Housing, clothing, food <…> Let's say we have taken it. And then?" (Rudenko, 2007, p. 387). Uncle Sashko saw that the artificially introduced growth of industry at the expense of the agricultural sector was destroying the state's economy: "Can you imagine a person cutting off his leg to boil it, well, to satisfy hunger? <…> And we are doing it, my friend. We destroy agriculture, and we build factories. And the land, brother, will not forgive us for this" (Rudenko, 2007, p. 388).

The peasant interpreted the natural and economic processes he observed while working on the land with the help of the Bible: "There was Jesus, the great preacher, whom God really sent to the Earth <…> And because He saw himself in the bread." (Rudenko, 2007, p. 400). The interpretation in the "Formula of the Sun" of the source of absolute surplus value through the prism of the Christian worldview and the figure of Jesus Christ in particular brings the text of the novel closer to a treatise as a work of scientific or religious nature (Kovaliv, 2007, p. 496).

In the mouth of Uncle Sashko, the writer presented his model of the economy, which he outlined in detail in "The Energy of Progress" (Rudenko, 2008). Understanding this model is the most difficult aspect of the novel. If the reader understands how Rudenko's economic model works, he will also feel the difference in the interpretation of the sources of absolute surplus value by Marxists and representatives of the physical economy, which is the goal of "Formula of the Sun" (Rudenko, 2007).

Rudenko's model of the distribution of biological energy in the agricultural sector of the economy is reflected in the allegorical 5 loaves of Christ, which should be divided in equal parts among the five sectors of the economy to ensure the economic development of the state: 1/5 of the income (1 loaf) from the harvest should be left for the peasant, the same equal parts should be allocated to the laborer, the votary and the manager, the fourth part should be directed to the development of livestock, and the conditional fifth loaf should be used to restore the black soil. The writer argued that "this economic model can easily be raised from the village level to the national or even global level. Then we will see three economic spheres: agriculture, industry, and the state" (Rudenko, 2013, p. 417). Thus, the agricultural sector of the economy should retain three parts of the income from harvested crops, and two parts should be used to meet the needs of industry and the state apparatus.

Table 3.
Rudenko's model of harvest distribution

Annual grain harvest				
Straw (2/5)			Grain (3/5)	
Land	Cattle	Peasant	Industrialists	State and logos
	peasant			state

According to uncle Sashko, the impoverished standard of living in the USSR was because the Communist Party had upset the natural balance that had been maintained by Ukrainian peasants for centuries: "Vasyl, do you know what the worst thing is? The fact that the peasant has ceased to be the owner of his bread. By this, brother, we crucified Christ. And we are bitterly offending the Mother of God – the land does not receive its share" (Rudenko, 2007, p. 388). Uncle Sashko also knew the cause of the famine in Ukrainian villages in 1933: the planned economy, forced collectivization, lack of freedom of trade and unbearable state

procurement plans: "Do you think people in Ukraine have been dying recently? The devil took away the Holy Trinity from the people. And note: with the church" (Rudenko, 2007, p. 381).

All the characters in the novel, without exception, understand the significance of Vasyl Horin's discovery. The attitude towards the retired colonel's manuscript differs in the goals pursued by the characters: the Gnostics, thinking on a large scale and in the long term, seek to preserve the work because it develops a model of alternative state development, while representatives of the Communist Party and its satellites are looking for opportunities to destroy the intelligence because its popularization threatens to lose power.

Conclusions

According to the author's intention, the novel "Formula of the Sun" became a field for anti-Marxist and anti-Communist discussion and at the same time a work of fiction. Thus, the main characteristic of the novel is a scientific presentation of the author's ideas wrapped in the fictional cover of the story of Vasyl Horin's discovery. Vasyl Horin's work is an accurate reflection of Rudenko's ideas, which the author presented in "The Energy of Progress" and his memoirs "Life is the Greatest Miracle", and highlights the disruption of the complex chain of social and state relations in the USSR, which eventually made the Union an untenable totalitarian state. The collapse of the USSR was predicted in The Sun's Formula 20 years before the collapse of the Soviet empire, and this prediction was based not on the author's emotions or desires but on complex and profound economic calculations. The synthesis of economics, religion, philosophy, and some applied sciences gave the fiction novel the features of a scientific polemical treatise. The novel focuses on the conflict between representatives of physical economics, who argued for state changes based on scientific research, and supporters of political economy, who, with the help of corrupt law enforcement agencies and the CSS, tried to destroy even the desire to fight for an idea that differed from the official ideology through intimidation, harassment, blackmail, and searches. Given the time of the novel's writing (the 1970s), it is necessary to note the author's extraordinary courage to prove that Karl Marx's political economy was fundamentally flawed in the era of "stagnation". The writer argued that the state of civilization and the planet depends on humanity's ability to create a model of the

external world and, on this basis, to develop a strategy of behavior. The new worldview, based on the laws of physical economy, will help people return to the natural and space environment and solve the acute global problems of our time. The work of representatives of the Ukrainian scientific school of physical economy is, first of all, a prognostic program of action not only for the Ukrainian people but also for the entire progressive humanity.

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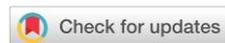
Intentional destruction or damage of objects of plant life as a crime under the law of Ukraine and other European countries: cross-jurisdictional analysis

Умисне знищення або пошкодження об'єктів рослинного світу як злочин за законодавством України та інших європейських країн: міжюрисдикційний аналіз

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Abstract

The key goal of this research paper is to analyze the specific features of legislative construction of Article 245 of the Criminal Code of Ukraine, in particular, the method of statutory reflection of the elements of the subject matter and subjective side of this criminal wrongful act used therein, and also to study the relevant European experience. This will enable to develop proposals aimed at improving the provisions of current national criminal legislation, which are intended to guarantee the protection of flora by means of Ukrainian criminal law.

In the course of relevant comparative legal research and formulation of conclusions, the author used a number of different scientific methods of cognition, in particular: modeling,

Анотація

Метою статті є аналіз особливостей законодавчого конструювання ст. 245 Кримінального кодексу України, зокрема, використаного у ній способу нормативного відображення ознак предмета та суб'єктивної сторони цього кримінально протиправного делікту, вивчення співставного європейського досвіду, а також розроблення завдяки цьому пропозицій, спрямованих на удосконалення тих положень чинного вітчизняного кримінального законодавства, які покликані гарантувати забезпечення кримінально-правової охорони рослинного світу в Україні.

При проведенні відповідного порівняльно-правового дослідження та доведенні висновків було використано низку різноманітних

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comparative, dialectical, systemic as well as statistical methods.

A conclusion has been reached that the newer version of the criminal law norm under study should, firstly, retain criminal liability for trespass to any type of vegetation, and not only violations relating to forests, and secondly, within its framework, liability for a) encroachment not only on green spaces around settlements, along railways, but also on any other green spaces, including those not located in appropriate places; b) destruction/damage of vegetation on lands of any category from among those provided for by the Land Code of Ukraine. In addition, the authors argue that it is necessary to establish penalties for intentional and negligent destruction of flora that differ in severity, which is explained by the significantly different degree of public harmfulness.

Keywords: crime, environment, flora, damage, intent.

наукових методів пізнання, зокрема: компаративістський, діалектичний, системний, статистичний, метод моделювання.

На підставі проведеного дослідження резюмується, що в новій редакції досліджуваної кримінально-правової норми має, по-перше, бути збережена кримінальна відповідальність за посягання на будь-які види рослинності, а не лише ті делікти, що стосуються лісових масивів, по-друге, у її межах має бути регламентована відповідальність за: а) посягання не лише на зелені насадження навколо населених пунктів, вздовж залізниць, а й будь-які інші зелені насадження, зокрема й ті, які не розташовані у відповідних місцях; б) знищення/пошкодження рослинності на землях будь-якої категорії з числа тих, що передбачені Земельним кодексом України. Крім того, аргументована необхідність встановлення різних за ступенем суворості покарань за умисні та необережні прояви знищення рослинного світу, що пояснюється притаманним цим діянням істотно різним ступенем їхньої суспільної небезпеки.

Ключові слова: злочин, навколишнє середовище, флора, збиток, умисел.

Introduction

The Strategy of the State Environmental Policy of Ukraine for the period until 2030 states that, on the one hand, the biosphere of Ukraine includes more than 70 thousand species of flora and fauna, in particular, more than 27 thousand species of flora, and, on the other hand, states that the main threat to biological diversity is human activity and the destruction of the natural habitat of flora (Law of Ukraine No. 2697-VIII, 2019). At the same time, special attention is drawn to the fact that the lack of a system of financing forestry activities, especially in the eastern and southern regions of Ukraine, led to the termination of works on the creation of protective forest plantations on low-productivity and degraded lands and the failure to implement preventive fire-fighting measures in forests, which has increased the risk of forest fires.

Hence, it is not surprising that in recent years, ever more attention has been paid in Ukraine to the issue of increasing the effectiveness of criminal law measures against destruction or damage of objects of the plant world, in particular, the spontaneous burning of vegetation and its remains. The presence of this fact has to be connected both with the reassessment of the

degree of social danger of this act for the society, and with the ineffectiveness of Art. 245 of the Criminal Code of Ukraine (hereinafter – the CC of Ukraine) "Destruction or damage to objects of plant life", the prescriptions of which should ensure the above-mentioned countermeasures. At the same time, one should note that domestic criminal law researchers, in particular the authors of this paper (Movchan, 2023a; Movchan, 2023b; Movchan et al., 2024), have previously drawn attention to the inefficiency of Art. 245 of the CC of Ukraine, which is most often explained by numerous flaws in its construction, including in terms of legislative statement of certain objective (in particular, the perpetrator element) and subjective (in particular, guilt) features of the analyzed crime. Therefore, we will elaborate on recommendations aimed at eliminating such shortcomings within this research paper.

Having declared the purpose and scope of the study, we would like to refer to the reasonable remarks by M. Havronyuk. He wrote that to maximize the effectiveness of Ukrainian criminal law, it should incorporate the most successful principles from European and global criminal jurisprudence, as well as insights from foreign

criminal legal systems (Havronyuk, 2013). And it is obvious that such argument, especially given the European integration aspirations of Ukraine, predominantly applies to European countries, whose legislation in the part related to criminal law protection of flora and fauna will be studied in the course of this paper for further use in improving the relevant provisions of national legislation.

The relevance of this comparative study is conditioned by the arguments described above, based on the results of which the authors have developed specific recommendations addressed to Ukrainian parliamentarians and law enforcement officers with the goal of improving the relevant prescriptions of domestic criminal law and the practice of their application, respectively.

Methodology

This study extensively refers to the comparative method with the goal of comparing various approaches to regulating liability for criminal offenses against flora existing in Ukraine and European countries. This key research method is most actively used by Ukrainian scholars in modern scholarship (Kamensky et al., 2023). For the purposes of this study, we have chosen the legislation of thirty European states (except Ukraine) which criminal codes provide for liability for various encroachments on flora. These countries include: Albania, Austria, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Georgia, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Macedonia, Moldova, Montenegro, the Netherlands, Norway, Poland, Portugal, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Hungary, Germany, Hungary, Sweden, Switzerland, and the Czech Republic. The study of the legislation of quite a few countries is explained by the fact that the legal literature has proved that such step allows to increase the effectiveness of comparative study.

In addition to the comparative method, a number of other methods of scientific analyses have proved useful in the course of the study (Myroshnychenko et al., 2024). The philosophical (dialectical) method has allowed, in particular, to divide the latter into two conditional parts, which are devoted to the comparative characterization of the approaches used in the CC of Ukraine and the criminal legislation of European countries to construct features of the subject matter and the subjective side of the criminal offense under consideration,

respectively (Movchan et al., 2023). The systemic method made it possible to use not only criminal law provisions but also domestic regulatory legislation to solve the problems under study, in particular, forestry and land legislation. The statistical method contributed to the analysis and generalization of empirical information, in particular, to the study and critical comprehension of judicial practice in relation to consideration of specific cases, which are referred to in the article. Using the modeling method, the author developed specific proposals, which may be useful for improving provisions of current criminal and administrative legislation, and also formulated proposals aimed at improving the relevant court practice, in particular, regarding the distinction between the modes of criminal and administrative liability, respectively, for destruction or causing damage to flora.

At the same time, when collecting relevant statistical data, information posted in the Unified State Register of Court Decisions was used, as well as relevant software (legal databases).

The carefully chosen methods for the purposes of our legal research have allowed to better analyze various parameters of criminal liability for the intentional destruction or damage of objects of plant life under the law of Ukraine and of other European countries. In particular, the combination of research tools has allowed to propose rational amendments to Article 245 "Destruction or damage to plant life objects" of the Ukrainian Criminal Code.

Literature review

In Ukraine, the most significant contributions to the development of the relevant issues have been made, in particular, by the following scholars: I. Berdnik (Berdnik, 2018), T. Kornyakova (Kornyakova, 2011), V. Matviychuk (Matviychuk, 2011, 2016), and Yu. Turlova (Turlova, 2015).

In particular, I. Berdnik developed criteria for distinguishing the analyzed criminal act from related administrative offenses (Berdnik, 2018). As for her part, Yu. Turlova carried out a comprehensive analysis of the practice of imposing punishment for committing all environment related criminal offenses, in particular, and the destruction or damage of plants provided by the discussed legal provision (Turlova, 2015).

As for scholars from other countries (except Ukraine), various issues of "plant" ecocide and other "anti-flora" crimes have been explored at length by M. Faure (Faure, 2017), M. Cohen (Cohen, 1992), K. Begiashvili (Begiashvili, 2023), A. Lavorgna (Lavorgna et al., 2018), G. Okuyucu Ergün (Okuyucu Ergün, 2021), F. Campbell (Campbell, 1988) and other scholars.

In particular, K. Begiashvili points out to the necessity of calculating damage caused by the illegal felling of trees and shrubs. In contrast to the clauses imposed on other categories of crimes, the Criminal Code of Georgia, as this author argues, does not impose a specific amount of damage in the event of illegal felling of trees and shrubs, which often creates uncertainty for the involved parties (Begiashvili, 2023).

G. Okuyucu Ergün has, in his turn, analyzed various legal aspects of the protection of environment through means of criminal law statutes in the EU. He wrote that in 2008, the Directive 2008/99/EC on the protection of the environment through criminal law was adopted. This Directive, which is currently the main legal instrument of the EU law on this subject, obliges Member States to provide for criminal penalties in their national legislation in respect of serious infringements of the EU's environmental legislation (Okuyucu Ergün, 2021). Obviously, this protection regime applies to plant life as well.

A. Lavorgna with a group of European co-authors refer to the important fact that the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) serves as the primary legal structure overseeing the international trade of wildlife. Enacted in 1975, its goal is to safeguard species in the wild by ensuring that international trade doesn't harm their survival. It mandates that any such trade must be sustainable, following robust biological standards, and lawful, in accordance with relevant national laws. Despite CITES and its principles, endangered species are still illicitly traded. This is an ever growing negative trend in the digital age and Internet commerce (Lavorgna et al., 2018).

Similar line of academic inquiry into international and national environmental criminal law has been conducted by some Ukrainian legal scholars (Lisova & Sharapova, 2020).

And American scholar F. Campbell makes a good point that unlike wild vertebrate animals, legal protection of plants in the United States is limited to "endangered" species only. The U.S. law does not attempt to regulate exploitation of common plant species. Thus, the author supports the argument for the prohibition of collection or destruction of endangered plants on public lands, other than national and state parks (Campbell, 1988).

The authors have also previously commented on some criminal law issues under review (land, subsoil (Movchan *et al*, 2021; Movchan *et al*, 2022).

Thus, based on the results of the analysis of the scientific research carried out by the above-mentioned authors, we see that those authors mainly focused their attention either on the issues of complex criminal law counteraction to the commission of environmental torts, or on the problems of criminal liability for encroachment on other than plant life, types of natural resources – land, subsoil, air, animal life, or only on those problems that are characteristic of certain countries without resorting to the properties of criminal law comparative studies.

So, in general, it can be stated that the issue of criminal legal response to encroachments on the environment is covered quite thoroughly in Ukrainian and foreign legal literature. At the same time, it should be noted that neither domestic, nor European scholars have conducted any special studies which would provide a comprehensive comparative analysis of the provisions of the Ukrainian Criminal Code and European countries' legislation dedicated to criminal law protection of flora, and this is the main reason for the chosen topic's relevance.

Results and discussion

Forests, green spaces, stubble, dry wild herbs, vegetation and its remains constitute the object of the crime (material element) under Art. 245 of the Criminal Code of Ukraine is. As for such elements as "settlements", "railways" and "agricultural land", they should be recognized as a place of destruction or damage to certain items of flora. However, given the respective legislative "merger" of these features, they will be analyzed in a combined mode.

Furthermore, the question arises as to the optimal formulation of certain features of the criminal offense under study. The issues that require

separate consideration as the most controversial include the justification of: a) recognizing not only forests and green spaces, but also other types of vegetation as the object of the discussed offense; b) limiting the subject matter of the criminal offense not to any, but only to certain types of green spaces, which are located outside settlements and along railways, as well as stubble, dry wild-growing grasses, vegetation or its remains, which are located on agricultural land only.

In addressing these issues, as announced in the introduction to this research paper, we decided to turn to the relevant foreign experience, which in this case seems to be an even more appropriate step for Ukraine given that many European countries, and especially those representing the so-called Western branch of the Romano-Germanic criminal law system, can "boast" of a much longer history of regulating liability for fire-related crimes than the domestic one. After conducting a comparative study, we have identified three main approaches to the construction of the relevant norms, which we will conditionally label as "general", "forest protective" and "comprehensive environmentally protective":

1) criminal legislation of the countries where the *"general" (first)* approach has been implemented provides only for general rules for liability caused by fire, which do not contain any "reference" to the forest or any other natural objects, and the main condition for criminal liability is the creation of public danger, in the sections on which the relevant rules are placed (Articles 169-170 of the Austrian Criminal Code (Criminal Code of Austria, 1974), Articles 180-182 of the Danish Criminal Code (Criminal Code of Denmark No. 976 , 2019), Article 355 of the Norwegian Criminal Code (Criminal Code of Norway, 2005); also, Article 284 of the Slovakian (Criminal Code of Slovakia No. 300/2005, 2005), Article 314 of the Slovenian (Criminal Code of Slovenia No. 50/12, 2008), Chapter 13 of the Swedish (Criminal Code of Sweden No. 1962:700, 1962) Criminal Codes, etc.);

2) criminal legislation of other countries embodies the *"forest protection" (second)* approach, the content of which is to criminalize fires that have led to the destruction or damage of only one type of natural resources – forest (forest areas), for which the punishment is more severe compared to the one provided for an "ordinary" fire (violation of fire safety rules)

(Art. 206-b of the Criminal Code of Albania (Criminal Code of Albania No. 7491, 1991), Article 236 of the Criminal Code of Bulgaria (Criminal Code of Bulgaria No. 26, 1968), Article 304 of the Criminal Code of Georgia (Criminal Code of Georgia No. 2287-rs, 1999), Article 423-1 of the Criminal Code of Italy (Criminal Code of Italy No. 1398, 1930), Article 232 of the Criminal Code of Moldova (Criminal Code of the Republic of Moldova No. 985-XV, 2002);

3) instead, parliamentarians of the latter group of states support and employ the *"comprehensive environmental protection" (or third)* approach, recognizing as criminal only those offenses which had led to fires either in forests or in some other or any other natural areas. At the same time, it should be noted: if in one group of such countries liability for destruction or damage (not exact term) by fire of all natural resources is unified (Article 429(3) of the Criminal Code of the Netherlands (Criminal Code of the Netherlands, 1881) – forest, heather, grass, peatlands; Article 272(1)(a) of the Criminal Code of Portugal (Criminal Code of Portugal No. 48/95, 1995) – forest, trees, wheat fields; Article 306(1)(5) of the Criminal Code of Germany (Criminal Code of Germany, 1998) – forests, fields (meadows and steppes) and peatlands), while in others, more severe penalties are provided for committing forest fires, which are often covered in separate articles (Article 352 (natural objects) and Articles 354-355 of the Estonian Criminal Code (forest) (not only by fire, but also by other means) (Criminal Code of Estonia, 2001); Articles 352-355 (forest), Article 356 (other natural areas planted with plants) of the Spanish Criminal Code (Criminal Code of Spain No. 10/1995, 1995).

Based on the above provisions, we were able to reach the following interim conclusions.

Firstly, in the analyzed provision of the national criminal legislation, it is quite fair and appropriate to recognize as criminal offenses encroachments on any type of vegetation Article 245 of the CC of Ukraine (unlike some of the above-mentioned legislative approaches) (Criminal Code of Ukraine No. 2341-III, 2001).

In arguing our demonstrated position, we must, on the one hand, point out the undeniable harmfulness of such actions for the Ukrainian environment, while, on the other hand, point to the fact that provisions of the national criminal

law other than Article 245 of the CC of Ukraine (Criminal Code of Ukraine No. 2341-III, 2001) do not allow for a proper legal assessment of such encroachments. After all: a) Art. 194 of the CC of Ukraine provides for response to cases of destruction or damage only to "property", which does not include vegetation, and "other's" property, which makes it impossible to recognize arson of one's own property as a crime; b) Art. 270 of the CC of Ukraine (Criminal Code of Ukraine No. 2341-III, 2001) can be applied only to persons whose attitude to the consequences was negligent and provided that actions of such persons caused harm to human health or property damage on a large scale (300 or more non-taxable minimum incomes).

Secondly, encroachments (destruction/damage) should be recognized as criminal offenses not only on green spaces around settlements and along railways, as provided for in the current version of the criminal law prohibition under study, but also on any other green spaces, including those not located in appropriate places, because, as practice shows, arson can cause extremely great environmental damage. And that is why the updated version of the relevant provision should remove the relevant restriction on the place of commission of a criminal offense. The relevant European experience also serves as an additional argument in favor of such recommendations. Thus, I would like to point out that: within Art. 236 of the Criminal Code of Bulgaria (Criminal Code of Bulgaria No. 26, 1968), the object/place of crime is recognized as forest trees, seedlings, forest crops, forest nursery, undergrowth; in Art. 304 of the Criminal Code of Georgia (Criminal Code of Georgia No. 2287-rs, 1999) – as forests and plantations; in Art. 354-355 of the Criminal Code of Estonia (Criminal Code of Estonia, 2001)– as trees and shrubs in forests and other plantations; in Art. 356 of the Criminal Code of Spain – as plants in non-forest areas (along with the provisions on forests and forest areas); in Art. 423-1 of the Criminal Code of Italy (Criminal Code of Italy No. 1398, 1930) – as forest, grove, forest nurseries; in Art. 272 of the Criminal Code of Portugal – as forests and trees not located in them. The criminal legislation of all these countries either explicitly states that the relevant crime covers those trees that are not part of the forest fund, or uses the general wording "trees" ("vegetation"), without indicating that such trees are included in the forest fund.

We recommend harmonizing the specified provisions of criminal and forestry legislation by defining the object of the crime under Article 245 of the CC of Ukraine (Criminal Code of Ukraine No. 2341-III, 2001) as "forests and green spaces". This, on the one hand, will make it possible to cover green spaces within settlements and along highways, and, on the other hand, will allow not to extend its provisions to individual trees and groups of trees, shrubs on agricultural land, private and garden plots (as well as self-forested plots within settlements with trees of average age less than 30 years, and self-forested plots within the protection zones of energy facilities, main heating networks, main pipelines and other linear infrastructure facilities), which should be recognized as "other types of vegetation".

Similarly to Ukraine, in some other European countries, the relevant provisions only mention "forest" and/or forest areas" (Articles 107–108 of the Criminal Code of Latvia (Criminal Code of Latvia, 1998), Article 232 of the Criminal Code of Moldova (Criminal Code of the Republic of Moldova No. 985-XV, 2002). At the same time, in the course of our research, no examples were found where these norms protect, as provided for in Article 245 of the Criminal Code of Ukraine, only those types of vegetation (as well as its residues) located on agricultural land. We found no reason for such restriction. In addition to agricultural lands, Ukraine also distinguishes the following: residential and public development lands; lands of nature reserves and other environmental protection purposes; lands of health improvement purposes; lands of recreational purposes; lands of historical and cultural purposes; lands of forestry purposes; lands of the water fund; lands of industry, transport, electronic communications, energy, defense and other purposes (Land Code of Ukraine, 2001).

This raises the question, which can obviously be deemed as rhetorical: is the burning of vegetation or its residues on lands with natural healing (recreational) purposes, used for organizing recreation, tourism and sports events (recreational purposes), where cultural heritage monuments are located, etc. less dangerous than similar actions committed on agricultural lands? The question also arises whether the danger of burning fallen leaves (vegetation residues) depends on where such actions took place (Oliynychuk, 2021).

However, the most surprising port in this analyses is that under Art. 245 of the CC of Ukraine, destruction or damage to vegetation

committed even on the lands of the protected areas (lands which have special environmental, ecological, scientific, aesthetic, recreational and other value, which are granted the status of territories and objects of the protected areas by law), i.e. actions which legal assessment should be carried out with reference only to part 2 of Art. 77-1 of the Code of Administrative Offenses (Code of Ukraine on Administrative offenses, 1984), which, on the contrary, gives this fact an aggravating feature in comparison with similar behavior on agricultural lands (part 1).

Here we could mention Art. 252 of the CC of Ukraine, which provides for liability for the encroachments against territories under state protection and also protected areas. However, this provision, despite reasonable proposals by scholars (Kovtun, 2010), still provides for the possibility of recognizing only intentional manifestations of the relevant acts, the percentage of which (compared to negligent ones) is traditionally much lower. So where is the logic and common sense here?

Yet another issue that does not contribute to the effective criminal law protection of flora is the problem of distinguishing the crime under Article 245 of the CC of Ukraine (Criminal Code of Ukraine No. 2341-III, 2001) from administrative offenses under Part 2 of Article 77 and Article 77-1 of the Code of Administrative Offenses (Code of Ukraine on Administrative offenses, 1984).

One should begin the analyses of this issue with the mention that the guilt element of this crime is quite specific. This refers to the fact recognized by most researchers that, in addition to direct intent, this crime also implies the presence of both indirect intent and negligence (Dudorov *et al.*, 2014; Criminal Code of Ukraine No. 2341-III, 2001). We are convinced that such "versatility" is not an advantage but rather a disadvantage of the analyzed criminal law prohibition. This, in turn, gives rise to a number of negative consequences, with the main ones being as follows.

Firstly, the impossibility of using the form of guilt to distinguish between related criminal and administrative offenses. The academic literature suggests using the form of guilt (intent or negligence) to distinguish between the elements of the discussed crime (in case of destruction or damage to the forest by fire) and administrative offense of destruction or damage to the forest due to careless handling of fire, as well as violation of fire safety requirements in forests, which has led to the outbreak of a forest fire or its spread over a large area. Here negligence is characteristic of an administrative offense, while intent – that of a crime. This recommendation is perceived ambiguously, because formally the negligent destruction or damage to flora simultaneously meets both elements of a crime under Article 245 of the CC of Ukraine (Criminal Code of Ukraine, 2001) and elements of relevant administrative offenses. Obviously, this issue can be partially solved by improving the legislative wording of the elements of the criminal destruction or damage to flora.

Secondly, it is the existing unification of liability for the destruction or damage of flora *committed with any form of guilt*. In other words, today there is a situation where the form of guilt does not actually affect the legal (criminal law, in particular) analyses of the violation.

We have already drawn attention to the differentiated approach toward the regulation of criminal liability for intentional and negligent damage to other (not forest) environmental elements. For example, while the Austrian Criminal Code (Criminal Code of Austria, 1974) provides for up to 3 years imprisonment for intentional pollution of the environment (Art. 180), the penalty for negligent pollution is only up to 1 year (Art. 181). In German penal legislation, the sanction for intentional soil pollution is also more severe than for negligent acts. Such significant difference in punishment is inherent in the sanctions provided for, in particular, pollution of water bodies, air pollution, noise, vibration and non-ionizing radiation, unauthorized waste management, unauthorized handling of radioactive substances and other dangerous goods and cargo, threats to areas in need of protection (Articles 324, 325, 325a, 326, 328, 329 of the German Criminal Code, respectively), In addition to other countries of the so-called "Germanic" group of criminal law (Estonia, Liechtenstein, Switzerland), this approach has been adopted by parliamentarians of Lithuania, the Netherlands, Portugal, Turkey, most Central European countries (Bulgaria, Poland, Slovakia, Hungary, Czech Republic), as well as countries of the "Yugoslav" group of the continental family of criminal law systems (Macedonia, Serbia, Slovenia, Croatia, Montenegro) (Dudorov & Movchan, 2020; Movchan, 2021).

It should be also noted that not only in Article 245 of the Ukrainian CC, but also in other provisions of Section VIII (Articles 239, 241-244) (Criminal Code of Ukraine No. 2341-III,

2001), the provisions of which also do not provide for the possibility of grading liability for pollution of certain elements of the environment (land, air, water, flora) depending on the form of guilt. According to S. Havrysh, in crimes against the environment, especially in the field of environmental safety, where grave and especially grave inevitable consequences may occur, the preservation of parity of forms of guilt is quite reasonable (Gavrysh, 2002). V. Matviychuk comments in a similar manner (Matviychuk, 2016).

Despite the existence of the argument about the need to comply with the principle of parity, we are inclined to associate the motives of the analyzed legislative decision on pollution of natural resources with the fact that the development and adoption of the Criminal Code of Ukraine was mainly based not on the above-mentioned European experience, but on the experience of the countries of the so-called Commonwealth of Independent States (CIS) group. In many cases, the Model Criminal Code for the CIS countries, approved by the Interparliamentary Assembly of the CIS member states on February 17, 1996, was taken as a model, which unifies liability for pollution of natural resources (Articles 222-226) (Model Criminal Code, 1996), just as in the active Criminal Code of Ukraine. It should be noted that differentiation of liability for destruction/damage of forests, on the one hand, committed by arson, and, on the other hand, those, which resulted from careless handling of fire, was provided even in the aforementioned recommendation document (Article 232(1) and (2)).

We can continue to cite various axiomatic provisions, which show the failure of Ukrainian legislator's decision to unify liability for intentional and negligent encroachments on specific environmental areas. Of course, if desired, certain terminological differences can be noticed in the above statements of scholars, but for the purpose of solving pragmatic tasks of improving the Criminal Code of Ukraine, we do not consider them fundamental. We proceed from the established approach, based on which public danger as a feature of the concept of a criminal offense is both an objective and subjective category determined, in particular, by the importance of social relations that are placed under criminal law protection, the severity of consequences, the method of action, the stage of the act, and the form of guilt.

By extrapolating the above to the subject of this study, it can be argued that there are hardly any grounds to consider as even approximately harmful the same assessments in practice under Article 245 of the CC of Ukraine:

−   actions of persons which demonstrate a negligent attitude even toward the act (for example, throwing a cigarette butt that caused a forest fire), and persons who, although intentional about the act, are careless about the consequences (usually it is a small grass fire which grows into a large-scale fire);
−   actions of persons who, while guided by various motives (revenge, concealment of other illegal actions, etc.), intentionally destroy flora not by careless handling of fire, but by deliberate arson.

In order to demonstrate the above points more clearly, let us turn to the materials of judicial practice. We will refer to several court decisions rendered under Art. 245 of the CC of Ukraine, when actions were qualified under it:

1) *Person-1, who, in order to collect straw, went to his mother-in-law's land plot, where, having smoked a cigarette, negligently in the form of criminal negligence, which was expressed by throwing away a cigarette butt, set fire to the stubble and part of the straw on the land plot, as a result of which the fire has spread in the direction of the nearby agricultural land plot of 56 hectares belonging to the private enterprise "Zakhidnyi Buh", with wheat plants on it. The fire burned the stubble and part of the straw on the land plot, as well as completely destroyed the wheat plants on the said land plot with a total area of 43.5 hectares (Case No. 1317/1852/2012, 2012);*
2) *Person-2, who deliberately set fire to dry grass at his place of residence, which started a fire that spread from the territory of Person-3's farm to block 4 (section 4) of the "Vyzhnytsia" enterprise, thus resulting in the destruction of forest litter over an area of 1.49 hectares and damage to 158 trees of various species to the point of growth cessation (Case No. 713/1215/22, 2022);*
3) *Person-3, who, while being near the cemetery, on the basis of hostile relations with employees of the State Enterprise "Polissya Forestry", decided to destroy flora (forests) by fire. While realizing his criminal intent, acting intentionally, intending to destroy flora, realizing the*

unlawful and socially dangerous nature of his actions, foreseeing harmful consequences and consciously wishing for such consequences to occur, Person-3 set fire to dry wild grass on the side of the road. As a result of the deliberate actions of Person-3, the grass caught fire, and the fire spread in the direction of the wind through the dry grass cover to the forest area corresponding to land allotments 12, 15, 17, 22, 23 of block No. 148 of the Dytiatkyi Forestry, in particular, an uncontrolled process of destruction and damage by fire of flora in the forest area has started, during which factors hazardous to wildlife and the environment have occurred, harmful chemical compounds have been released into the atmosphere, and the fire has damaged and destroyed forest vegetation, the natural state of soil cover, and microorganisms on a total area of 14 hectares (Case No. 366/2908/19, 2022).

Those court decisions (among many other) have led to the question: is the degree of social danger of the mentioned options of behavior the same and such that does not require differentiation of liability for their commission? In our opinion, the negative answer to this question is more than obvious.

The need to improve relevant provisions of domestic criminal law is eloquently confirmed by relevant foreign experience. Once again, we have seen that parliamentarians of other European countries take a unanimous position on the need to differentiate liability for, on the one hand, destruction or damage to forests (or flora in general) resulting from careless handling of fire or other sources of increased danger, and, on the other hand, for the destruction or damage to flora committed by arson alone, or by explosion or other generally dangerous means.

At the same time, by differentiating liability for destruction or damage to flora by arson and careless handling of fire, parliamentarians of the respective countries demonstrate different attitudes toward criminality of such acts: some believe that both elements should be material; others believe that both acts are so dangerous that they should be criminalized regardless of their consequences; while legislators of a conditionally third group of countries propose a differentiated approach by criminalizing arson regardless of its consequences, when careless handling of fire is punishable only if it caused damage.

After analyzing the above discussed options, we are inclined to believe that the most acceptable is the position of the third group of parliamentarians, who, given the extremely high risk of arson or other intentional publicly dangerous acts, recognize such behavior as criminal, regardless of the amount of damage caused by it (formal structure). The latter, while not affecting criminalization, is recognized as a factor in the differentiation of criminal liability. With regard to careless handling of fire, given the objectively lower degree of public danger of such acts, criminal liability for their commission is provided only if certain consequences occur (Art. 352 of the Spanish Criminal Code, Articles 107–108 of the Latvian Criminal Code). We consider criminalization of any form of negligent destruction or damage to forests (flora) by legislators of certain states to be unjustified (part 1 of Art. 304 of the Criminal Code of Georgia).

Conclusion

Having conducted our comprehensive criminal law analyses, we have grounds to conclude that the improved version of Article 245 of the Criminal Code of Ukraine should:

1) preserve liability for criminal actions against any type of vegetation, not only those torts related to forests;
2) within its framework, liability should be regulated for:

a) encroachment not only on green areas around settlements, along railways, but also on any other green areas, including those not located in appropriate places;
b) destruction of vegetation on the lands of any category from among those provided for by the Land Code of Ukraine (its Article 19).

In addition, we recommend that within the same Art. 245 of the CC of Ukraine (or two separate provisions) criminal liability for, on the one hand, intentional destruction/damage of flora committed by arson, and, on the other hand, destruction/damage of flora resulting from careless handling of fire or other sources of increased danger should be differentiated. Sanctions contained in such criminal prohibitions should be differentiated as well.

Due to the volume limitations for this paper, it was not possible to discuss and solve a number of other pressing issues of criminal liability or the destruction/damage of plant life within the scope of the research. In particular, this related to the: absence of Art. 245 of the Criminal Code of

Ukraine on the differentiation of criminal liability depending on the consequences of the relevant actions; assessment of the concept of "other serious consequences" provided for in Part 2, which leads to the absence of a unified approach to its interpretation in practice; imperfection of the sanctions provided for in the criminal law under consideration, as well as numerous defects inherent in the practice of implementing punishments established within its limits. In addition, it is worth recalling that a Working Group on Criminal Law Reform has been established in Ukraine, which has almost completed its work on the creation of the draft of the new Criminal Code of Ukraine. Familiarization with this document has proved that it proposed a fundamentally different approach to the regulation of liability for the destruction and damage (both intentional and careless) of various plant life objects compared to those provided for by the current Criminal Code of Ukraine.

Therefore, we are convinced that analysis of the relevant provisions of the projected criminal law, as well as those marked by a few above paragraphs of the unresolved criminal law issues in this article, should become the object of future scientific investigations (research) in this vital area of legal regulation.

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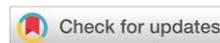
Mapping the role of financial management in healthcare: Bibliometric analysis of Middle Eastern region

تحديد دور الإدارة المالية في الرعاية الصحية: تحليل ببليومتري لمنطقة الشرق الأوسط

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Abstract

The study aims to emphasize the importance of financial management within the healthcare sector using bibliometric analysis techniques like influential authors, countries, journals, and publications. The researcher used the Scopus database for the extraction of required data. For this purpose, several relevant keywords and synonyms related to financial management in healthcare were used as advanced search options in the Scopus database. The bibliometric keyword cluster analysis indicated that financial management plays a significant role in health insurance, funding, cost, expenses, financing, and insurance related to healthcare units in Middle Eastern regions. The most influential top 5 countries for research in the financial management of healthcare units in the Middle Eastern region are Iran, Lebanon, Egypt, UAE, and Saudi Arabia respectively. Similarly, the most influential journal in this domain is "Eastern Mediterranean Health Journal published by World Health Organization". Additionally, the most influential authors in this research domain are Ammar, Walid S from Lebanon, and Rashidian, Arash from Iran. The findings of this bibliometric study are specifically important for practitioners, administrators, and policymakers in the healthcare sector of the Middle East region for making valuable decisions regarding financial management practices.

Keywords: Financial Management, Healthcare, Bibliometric Analysis, Middle Eastern Region.

خلاصة:

تهدف الدراسة إلى التأكيد على أهمية الإدارة المالية في قطاع الرعاية الصحية باستخدام تقنيات تحليل البيبليومتري، مثل المؤلفين المؤثرين، والدول، والمجلات، والمنشورات. استخدم الباحث قاعدة بيانات سكوبس لاستخراج البيانات المطلوبة. ولتحقيق هذا الهدف، تم استخدام العديد من الكلمات الرئيسية والمرادفات المتعلقة بالإدارة المالية في الرعاية الصحية كخيارات بحث متقدمة في قاعدة بيانات سكوبس. وأشارت تحليلات تجمع الكلمات الرئيسية البيبليومترية إلى أن الإدارة المالية تلعب دورًا كبيرًا في التأمين الصحي، والتمويل، والتكاليف، والنفقات، والتمويل، والتأمين المتعلق بوحدات الرعاية الصحية في مناطق الشرق الأوسط. كانت أكثر الدول تأثيرًا في البحث حول الإدارة المالية لوحدات الرعاية الصحية في منطقة الشرق الأوسط هي إيران ولبنان ومصر والإمارات العربية المتحدة والمملكة العربية السعودية على التوالي. وبالمثل، كانت المجلة الأكثر تأثيرًا في هذا المجال هي "مجلة الصحة لشرق المتوسط" التي تنشرها منظمة الصحة العالمية. بالإضافة إلى ذلك، كان المؤلفون الأكثر تأثيرًا في هذا المجال البحثي هم عمار و وليد من لبنان، رشيديان و آرش من إيران. إن نتائج هذه الدراسة البيبليومترية مهمة بشكل خاص للممارسين، والإداريين، وصناع القرار في قطاع الرعاية الصحية في منطقة الشرق الأوسط لاتخاذ قرارات قيمة تتعلق بممارسات الإدارة المالية.

الكلمات المفتاحية: الإدارة المالية، الرعاية الصحية، التحليل الببليومتري، منطقة الشرق الأوسط

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Introduction

The term financial management denotes an organized method of planning, organizing, supervising, and regulating an organizational financial resource to effectively achieve its objectives. (Block et al., 2014). To achieve the optimal level of resource allocation within an organization, it is important to implement efficient practices of financial management there (Ehrhardt, 2011). It helps to improve the process of decision-making, decrease financial risk, adhere to financial regulations, boost the financial performance of an organization (Brigham & Houston, 2013). Similarly, to achieve profit optimization, decrease inefficient practices, it is vital for organizations to consider the most efficient financial management practices. (Rahimpour et al., 2020).

The management in healthcare sector has to make decisions about their resource allocation, cost controlling, and revenue management, therefore, they depend upon efficient financial management practices (Cashin et al., 2017; Cleverley et al., 2023; Henson, 2023). Similarly, a healthcare facility needs to adequately plan and budget through financial management to allocate their limited financial resources in an ideal manner to satisfy the demands of their patients (Tsofa et al., 2017). Furthermore, in order to ensure the compliance in accountability, and transparency in the financial reporting as well as facilitating the long-term investment and financing decision within a healthcare unit, the implementation of best practices of financial management is crucial (McKinney, 2015). Moreover, the healthcare units need to give priority to implement the practices of efficient financial management to achieve the aim of sustainability and providing high quality care (Dion & Evans, 2024).

It is evident from several studies that financial management practices in Middle Eastern regions' healthcare facilities vary markedly from those found elsewhere in the world and other sectors (Akhmat et al., 2014; Alzarea et al., 2022; Mumghamba et al., 2015). Recently, the healthcare sector has undergone a significant transition and development in the Middle Eastern region. This development and transition in the healthcare units is required due to medical advancements, evolving patterns in illness, and the growing population of Middle Eastern region (Abyad, 2021; Baker et al., 2022; Danaei et al., 2019; Jakovljevic et al., 2017).

Despite significantly acknowledging the role of financial management practices in the healthcare sector, the trends and present state of research is still lacking and unclear in this domain for the Middle Eastern region. Additionally, there is a significant lack of knowledge regarding the most influential authors, countries, journals, and articles regarding the role and practices of financial management in healthcare units of Middle Eastern region (Mattout et al., 2024). Therefore, it is vital to consider a detailed bibliometric study to identify the current trends for the role of financial management in healthcare industry of the Middle Eastern region by identifying the future research avenue and providing implications for policymakers, partitions, and administration in this sector.

The objective of this study is to emphasize the importance of financial management within the healthcare sector by determining the most influential journals, authors, articles, and countries in the Middle Eastern as the bibliometric analysis techniques. Additionally, the study aims to address the potential directions for future research on the role of financial management practices in healthcare units of Middle Eastern regions. Therefore, the following are the specific research aims of the study:

1) To find out the most influential journals publishing articles in the domain of financial management in the health care sector of Middle East regions.
2) To identify the leading authors that significantly contributed for the research studies in financial management of healthcare in Middle East regions.
3) To determine the highly cited top articles for the research in the domain of financial management of healthcare.
4) To examine the leading countries in the Middle Eastern regions where the authors are collaborating and publishing their research work for financial management in healthcare.

The present research is important for the healthcare sector of the Middle Eastern region for a detailed bibliometric analysis of their role in financial management practices. The study provides valuable insights regarding the role of financial management for the policymakers, practitioners, administrators, and decision-makers in the healthcare sector of the Middle Eastern region. Additionally, the study helps to

improve the practices and role of financial management within the healthcare sector of the Middle Eastern region by providing valuable suggestions for future research. Furthermore, the study significantly contributes towards sustainable, efficient, and effective healthcare systems in the target region by considering the role of financial management practices. Finally, the study contributes significantly in terms of improvement in the healthcare financial practices in the target region by identifying the area of greater concern in this domain.

Literature review

The research aims to examine the recent research trends for the practices of financial management in the healthcare of the Middle Eastern region using bibliometric analysis. The literature from developed nations provide extensive evidence of healthcare sector regarding their financial management practices. It considered the financial management' role for improving the standardized care and cost control in healthcare units. Using systematic literature review as well quantitative secondary data analysis, a number of studies found that the healthcare units' operational performance can be enhanced with limited resource allocation along with cost control, and efficient system of financial management (Moons et al., 2019; Portine, 2023). Similarly, studies based on time series regression as well as structural analysis found a positive role of financial management effective practices on patient's satisfactions and healthcare unit' performance (Boamah et al., 2017; Zehir & Zehir, 2023). Additionally, a review study indicated that a number of initiatives like employing competent health professionals, technologies, and latest health related infrastructure reflect efficient financial management practices that significantly improves the care experience of their patients (Owolabi et al., 2024). The existing literature from developed region also provides some systematic and bibliometric analysis relating to different roles of financial management in public/private sector healthcare units. For example, Cobelli and Blasi (2024) examined the usage of digitalization in healthcare industry during Covid-19 using bibliometric analysis. Similarly, Güngör Göksu (2023) addressed budgeting and financial management practices in the public organizations.

Additionally, the literature lacking the evidence in the form of systematic as well as bibliometric analysis for the role of financial management in the public healthcare sector of Middle Eastern region. However, the literature has highlighted a limited number of empirical studies from Middle Eastern region regarding the practices of financial management and their role in healthcare sector. Most of these studies claim that the healthcare provisions in this region significantly require efficient financial management practices. For example, a qualitative study from Middle East region showed that healthcare units in this region face the problems of limited resources for which efficient financial management practices are lacking (Moradi et al., 2023). Furthermore, the prior researchers using a systematic literature review and a qualitative study contended on the role of robust financial management practices to tackle the growing population's needs, and achieve organizational objectives for the healthcare sector in this region (AlJohani & Bugis, 2024; Ezzati et al., 2023). The literature on developed region provide a limited number of evidence for the bibliometric analysis on the role of financial management practices in healthcare units. However, the empirical evidence from the developing region showed that there is a dire need to unfold the trends in financial management practices in the healthcare sector using bibliometric analysis specifically for the countries related to the Middle Eastern region. Therefore, the study provides evidence for influential countries, authors, articles, and journals from this region doing research in the domain of healthcare financial management.

Methodology

The study aims to explore the trends, patterns, and relationships addressing the role of financial management in healthcare sector of Middle Eastern region. Therefore, it is an exploratory study. This study uses data for bibliometric analysis using Scopus. It is considered high quality database as compared to similar alternatives like Web of Science, Google Scholar, etc., (Singh et al., 2021). Using the Elsevier Scopus database provides a detailed dataset as the most suitable option for conducting bibliometric analysis (Parlina et al., 2020). The Scopus database was accessed on March 5, 2024, employing titles, abstracts, and keywords as the initial criteria for extracting the target dataset. The initial phase includes the major keywords like "financial management", and "healthcare". However, the researcher used 6 alternative keywords for financial management, and 7 synonyms for healthcare to consider optimized search query. The query string produced 63551 documents; articles, review papers, conference papers, books, etc. Furthermore, the query string produced 60555 documents containing 95%

subject coverage in the healthcare domain as the next limitation. In addition, the researcher used another limit "articles" as the type of documents, which produced 45500 published articles in the target domain. Additionally, another restriction of affiliated countries from Middle Eastern region was used. It produced 438 articles published discussing financial management practices in their healthcare setting. Finally, the researcher considered the top 15 journals as the final restriction for the query string for the Scopus database. It generated a total number of 110 published articles. The study used bibliometric analysis using the Scopus database and VOS-Viewer 1.6.20 version. This part of the analysis performed by Scopus database includes; yearly publication trends, documents by target countries, top journals, top articles, and top authors for the target domain of financial management in healthcare. The remaining analysis was performed using VOS-Viewer, which includes; co-author analysis, and keyword analysis.

However, there are some potential biases that can affect the findings of this study. For example, there may be database coverage bias due to the exclusive use of Scopus database only. The other databases may include some important information that may be missing in the Scopus database. Additionally, the Scopus database significantly comprise of the information for Articles written in English language, which may create language bias. Therefore, it may overlook the potential contribution in the literature by the articles written in other languages.

The study may also include some limitations in terms of data availability, and methodology. For example, data availability is confined to period from 2000-2024. The Scopus database does not include the data before this period for this particular domain. Furthermore, the subsequent changes after 2024 may also not reflected in this study. Additionally, the limitations regarding methodology may include the exclusive use of VOS viewer as bibliometric analysis software as well as the specific analysis methods like co-author analysis, co-occurrence analysis, etc., which may not capture the further dimension required in such studies.

Resultas and discusión

Figure 1 indicates a yearly trend of publications in the domain of financial management in the Healthcare sector of Middle Eastern region during 2000-2024. The figures show multiple phases due to multiple peaks in the publication trend.
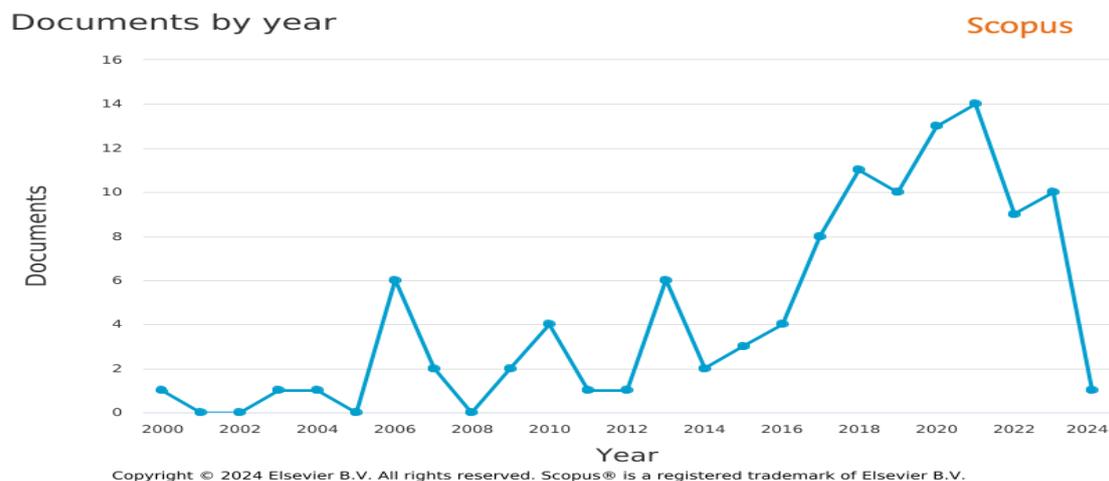
Figure 1. Publication Trend
(Source: Scopus Database)

During 2000-2024, some economies from the Middle East region conducted some research studies addressing financial management practices in healthcare. According to Figure 2, Iran ranks first by producing more than 65 publications for addressing financial management in healthcare. Similarly, Egypt, Lebanon, Saudi Arabia, Turkey, UAE, Iraq, Jordan, Kuwait, Palestine, Qatar, Oman, and Yemen contributed many publications respectively in consecutive order.

Documents by country or territory
Compare the document counts for up to 15 countries/territories.
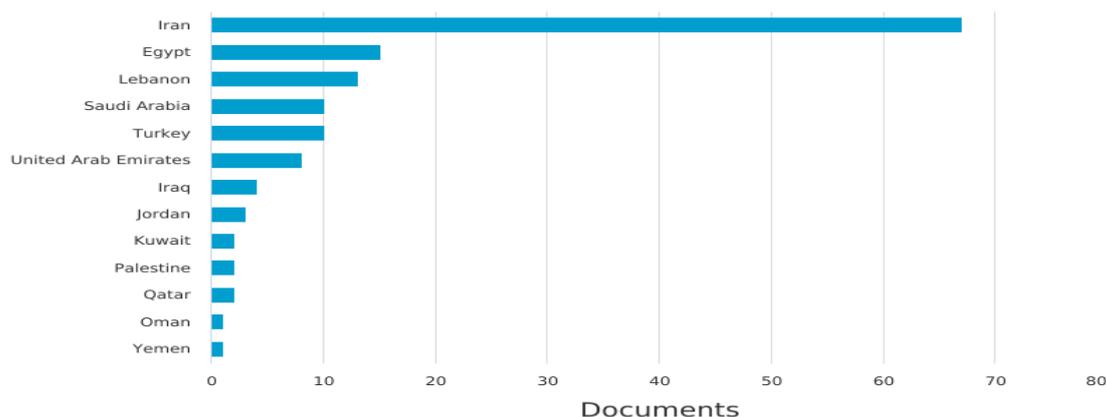
Figure 2. Number of Documents by Middle Eastern Countries
(Source: Scopus Database)

Journal productivity is measured by publication count and cite score (Roldan-Valadez et al., 2019). Table 1 indicates the top 15 journals publishing their articles for financial management in healthcare with a focus on the Middle Eastern region. According to this table, it is obvious that "Eastern Mediterranean Health Journal as published by the World health organization" stood first in the top journal ranking while Saudi Medical Journal ranked 15 in this list. These journals show the impact of financial management practices on healthcare units' research in the Middle Eastern region.

Table 1.

Top 15 Journals

Rank	SOURCE TITLE	Number of Documents	Cite Score (2023)	Publisher
1	Eastern Mediterranean Health Journal	19	3.3	World Health Organization
2	International Journal Of Health Planning And Management	14	4.4	Wiley-Blackwell
3	BMC Health Services Research	11	4.4	Springer Nature
4	Archives Of Iranian Medicine	8	4.2	Academy of Medical Sciences of I.R. Iran
5	International Journal Of Environmental Research And Public Health	8	7.2	Multidisciplinary Digital Publishing Institute (MDPI)
6	Journal Of Mazandaran University Of Medical Sciences	7	0.6	Mazandaran University of Medical Sciences
7	Globalization And Health	6	18.2	Springer Nature
8	Health Care Manager	6	1.7	Wolters Kluwer Health
9	Health Research Policy And Systems	5	7.4	Springer Nature
10	Health Science Reports	5	1.8	Wiley-Blackwell
11	Lancet	5	146.7	Elsevier
12	Health Policy And Technology	4	9.2	Elsevier
13	International Journal Of Health Policy And Management	4	5.4	Kerman University of Medical Sciences
14	Iranian Journal Of Epidemiology	4	0.6	Tehran University of Medical Sciences
15	Saudi Medical Journal	4	2.2	Saudi Arabian Armed Forces Hospital

Source: Scopus Database

Table 2 indicates the top 15 articles with the research focus on financial management in healthcare. These journals were ranked based on their number of citations. The article ranked first in this list entitled "Past, present, and future of global health financing: A review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995-2050." was published in 2019 by "The Lancet" and was cited 259 times. Table 2 further indicates the first 4 highly cited and ranked articles from the same publisher. The other influential articles for the domain of financial management in healthcare are listed along with their ranks, titles, year of publications, time cited, and source documents/journals.

Table 2.
Top 15 Articles based on Citations.

Rank	Article Title	Year of Publication	Time Cited	Source
1	Past, present, and future of global health financing: A review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995-2050	2019	259	The Lancet
2	Evolution and patterns of global health financing 1995-2014: Development assistance for health, and government, prepaid private, and out-of-pocket health spending in 184 countries	2017	196	The Lancet
3	Future and potential spending on health 2015-40: Development assistance for health, and government, prepaid private, and out-of-pocket health spending in 184 countries	2017	148	The Lancet
4	Spending on health and HIV/AIDS: domestic health spending and development assistance in 188 countries, 1995–2015	2018	117	The Lancet
5	Progress towards early detection services for infants with hearing loss in developing countries	2007	70	BMC Health Services Research
6	Catastrophic health expenditure after the implementation of health sector evolution plan: A case study in the west of Iran	2016	70	International Journal of Health Policy and Management
7	Tracking development assistance for health and for COVID-19: a review of development assistance, government, out-of-pocket, and other private spending on health for 204 countries and territories, 1990–2050	2021	67	The Lancet
8	Out-of-pocket and informal payment before and after the health transformation plan in Iran: Evidence from hospitals located in Kurdistan, Iran	2017	57	International Journal of Health Policy and Management
9	Rebuilding of the Lebanese health care system: Health sector reforms	2006	45	Eastern Mediterranean Health Journal
10	Healthcare workers experience in dealing with Coronavirus (COVID-19) pandemic	2020	45	Saudi Medical Journal
11	A new costing model in hospital management: Time-driven activity-based costing system	2013	43	Health Care Manager
12	Accreditation of hospitals in Lebanon: A challenging experience	2007	27	Eastern Mediterranean Health Journal
13	Technical efficiency of teaching hospitals in Iran: The use of stochastic frontier analysis, 1999–2011	2014	24	International Journal of Health Policy and Management
14	The impact of health reform in Iran on catastrophic health expenditures: Equity and policy implications	2019	23	International Journal of Health Planning and Management
15	Understanding the implications of the Sustainable Development Goals for health policy and systems research: Results of a research priority setting exercise	2020	23	Globalization and Health

Source: Scopus Database

Figure 3 shows the leading authors for target domain and region. The most influential authors in these are Ammar, Walid S, from Lebanon, and Rashidian, Arash from Iran with 7 publications related to financial management in healthcare from Middle East Region. The minimum number of articles published are 3 by Alizadeh-Navaei, Reza, and Anjomshoa, Mina both from Iran. Most of these influential authors are from Iran.
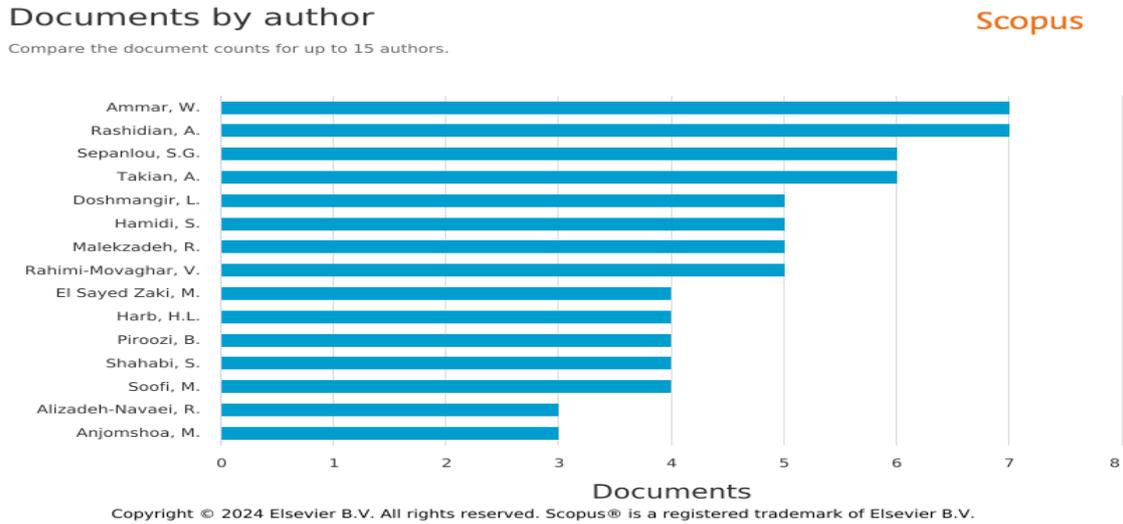

Figure 3. Documents by Top 15 Authors in Middle Eastern Region
(Source: Scopus Database)

Table 3 indicates the influential author's further details. According to the table, the most influential author "Ammar, Walid S" is affiliated with Faculte de Medecine, Beirut, Lebanon. The author made the first publication in 1997, and to date there are 123 documents authored by him. His H-Index is 43, while he is cited in 71856 documents to date. Similarly, 2nd most influential author "Rashidian, Arash" is affiliated with the Tehran University of Medical Sciences, Tehran, Iran. The author made the first publication in 2003, and to date there 451 documents authored by him. His H-index is 45, and he is cited in 8242 documents to date. The majority of these top 15 influential authors are from Iran except Hamidi, Samer A. from UAE, Zaki, Maysaa El S from Egypt, and Harb, Hilda L. from Lebanon.

Table 3.

Top 15 Authors from Middle Eastern Region

Rank	Author Name	Scopus Author Id	1st Publication	Total Publication	H-Index	Total Citation	Current Affiliation	Country
1	Ammar, Walid S	57208159281	1997	123	43	71856	Faculté de Médecine, Beirut,	Lebanon
2	**Rashidian, Arash**	23095291800	2003	451	45	8242	Tehran University of Medical Sciences, Tehran	Iran
3	**Sepanlou, Sadaf G**	36248136000	2008	245	94	130943	Digestive Diseases Research Institute, Tehran,	Iran
4	**Takian, Amirhossein**	36483640400	2010	166	26	2116	School of Public Health, Tehran	Iran
5	**Doshmangir, Leila**	44261140600	2010	121	29	12526	Social Determinants of Health Research Center, Tabriz	Iran
6	**Hamidi, Samer A.**	24366336000	2008	139	73	74179	Hamdan Bin Mohammed Smart University, Duba	UAE
7	**Malekzadeh, Reza**	7005197760	1988	935	132	164624	Tehran University of Medical Sciences, Tehran	Iran

8	**Rahimi-Movaghar, Vafa**	65076464 46	2003	442	80	77517	Tehran University of Medical Sciences, Tehran	Iran
9	**Zaki, Maysaa El S.**	57203666 922	1995	230	72	87396	Faculty of Medicine, Mansoura	Egypt
10	**Harb, Hilda L.**	57221443 122	1999	62	41	62336	Ministry of Public Health, Lebanon, Beirut	Lebanon
11	**Piroozi, Bakhtiar**	57188976 684	2012	77	17	1359	Kurdistan University of Medical Sciences, Sanandaj	Iran
12	**Shahabi, Saeed**	57211581 903	2019	104	31	18396	Shiraz University of Medical Sciences, Shiraz	Iran
13	**Soofi, Moslem**	56373891 000	2015	81	36	36629	Kermanshah University of Medical Sciences, Kermanshah	Iran
14	**Alizadeh-Navaei, Reza**	36024974 700	2008	232	36	32728	Gastrointestinal Cancer Research Center, Sari	Iran
15	**Anjomshoa, Mina**	57204563 282	2014	51	35	36450	Tehran University of Medical Sciences, Tehran	Iran

Source: Scopus Database

Table 4 indicates collaboration b/w authors from 10 Middle Eastern countries for research in financial management in healthcare. It shows that Iran ranks 1st in this list with 21 collaborations and substantial influence with 35 links, published 62 documents with 509 citations. Similarly, Lebanon ranked 2nd with 16 collaborations, substantial influence of 18, 9 publications, and 155 citations. Furthermore, Egypt ranked 3rd in this list with 13 collaborations, 19 strengths, 10 publications, and 68 citations. Moreover, UAE ranked 4th with 13 collaborations, 13 link strength, 3 document publications, and 18 citations. Additionally, Saudi Arabia ranked 5th with 9 collaborations, 9 link strengths, 8 publications, and 136 citations.

Table 4.
Co-Author Country rankings (Middle Eastern countries)

Ranks	Countries	Links	Total Link Strength	Documents	Citations
1	Iran	21	35	62	509
2	Lebanon	16	18	9	155
3	Egypt	13	19	10	68
4	UAE	13	13	3	18
5	Saudi Arabia	9	9	8	136
6	Iraq	5	5	2	5
7	Palestine	2	2	2	5
8	Qatar	2	2	1	15
9	Israel	1	1	1	3
10	Jordon	1	1	2	2

Source: VOS Viewer co-author analysis.

Figure 4 (a) indicates research collaboration between authors from different countries for research related to financial management in the healthcare of Middle East region. The figures identified the following nodes; Iran, Lebanon, Egypt, UAE, and Saudi Arabia. The largest node in this figure is Iran with 21 collaborations with the following countries; United Kingdom, Italy, Japan, Norway, Caphri, Australia, Switzerland, Netherlands, Cambodia, India, Ghana, Brazil, and Lebanon. It means from the Middle Eastern region, Iran is connected with Lebanon with one link strength.

The 2nd largest node is Lebanon with 16 collaborations with the following countries; Iran, USA, Netherlands, Switzerland, India, Cambodia, Ghana, Argentina, South Africa, and Brazil. Lebanon is only connected with Iran from the Middle Eastern region. The 3rd largest node is Egypt with 13 collaborations with the following countries; Jordon, the UK, the USA, Australia, Afghanistan, India, Pakistan, Switzerland, and Canada. From the Middle Eastern region, Egypt is only connected with Jordon for collaborative research in the target domain.

The 4th largest node is UAE with 13 research collaborations with following countries; Canada, Pakistan, Belgium, Bangladesh, Ghana, Poland, UK, South Africa, Philippines, Netherlands, and USA. UAE is not connected with any other Middle Eastern country. Finally, the 5th largest node is Saudi Arabia with 9 research collaborations with the following countries; Mexico, Nigeria, Hong Kong, Malaysia, Philippines, Brazil, South Africa, and Ghana. Saudi Arabia is also not collaborated with any other Middle Eastern country for the target domain.
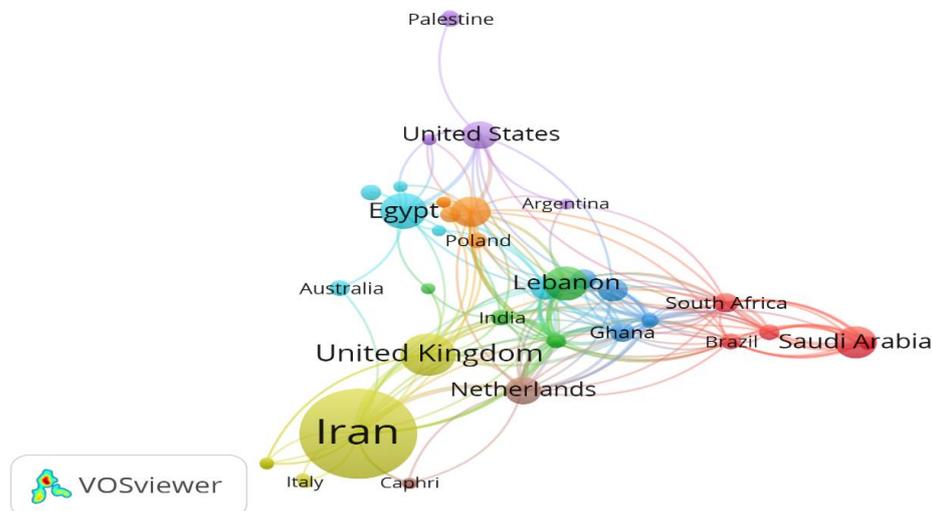
Figure 4 (a). Co-author network visualization
(Source: VOS Viewer)

Figure 4 (b) indicates co-authorship overlay visualization. It shows that some dark nodes, and some light nodes. The dark nodes like Lebanon, Brazil, Saudi Arabia, and Palestine represent co-authorship with more citations due to collaborative research in target domain. Similarly, the light nodes like Iran, UK, Egypt, USA, Poland, etc., represent research collaborations with lower citations in the target domain.
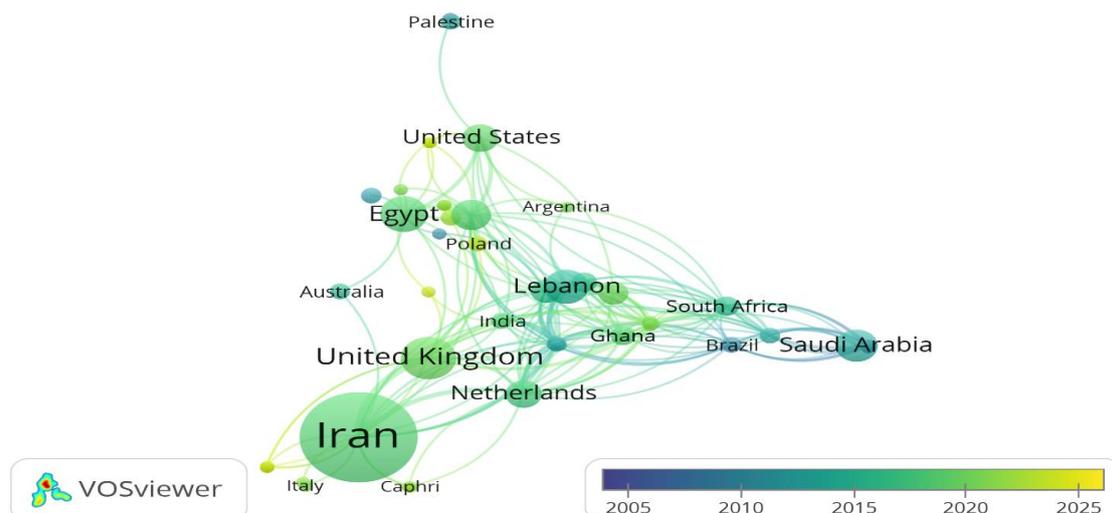
Figure 4 (b). Co-author overlay visualization
(Source: VOS Viewer)

Figure 5 (a) indicates top nodes as per their size showing the co-occurrences of significant keywords. It indicates that financial management as the largest node which is co-occurred 108 times with the following 16 words; health insurance (6 times), health expenditure, healthcare financing (2 times), Govt Financing, financial management in hospital, hospital cost, funding, healthcare financing (2 times), public hospitals. In this case, financial management co-occurred with the healthcare sector 9 times as per the Scopus database.
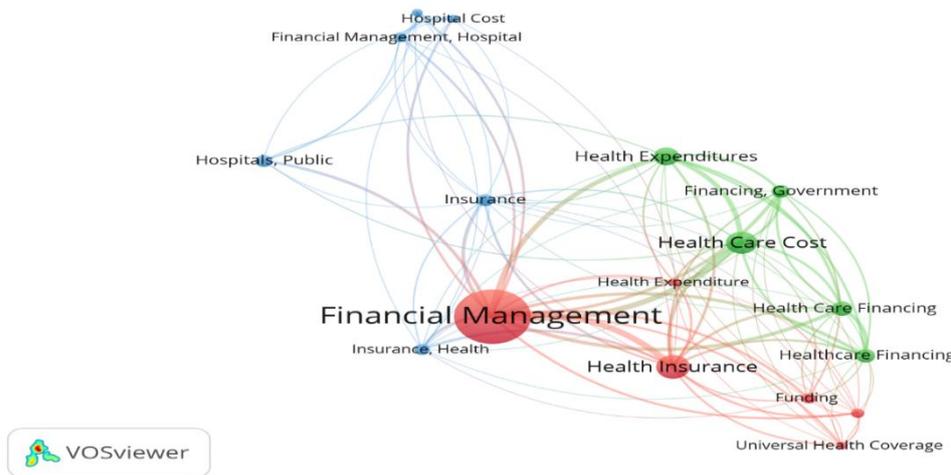
Figure 5 (a). Keyword Co-occurrence Network Visualization
(Source: VOS Viewer)

Figure 5 (b) indicates keyword co-occurrences overlay visualization. It shows that some dark nodes, and some light nodes. The dark nodes like Hospital cost, financial management in Hospitals, public hospitals, and Govt funding represent co-occurrences with more citations, therefore, these keywords are highly concentrated in this region. Similarly, the nodes with light colors like healthcare findings, funding, health expenditure, and universal health insurance represents co-occurrences with lower citations are less concentrated keywords in this region.
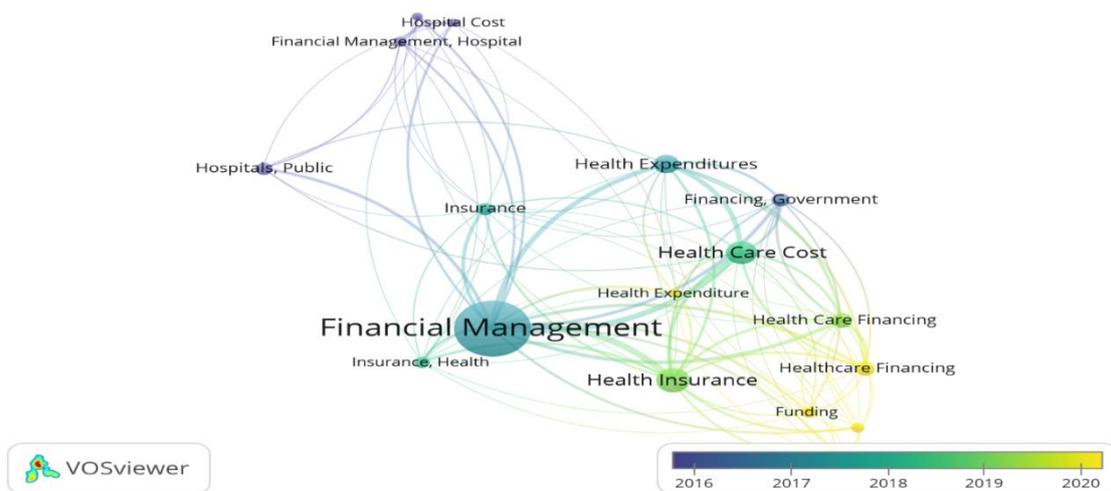

Figure 5 (b). Keyword Co-Occurrence overlay visualization
(Source: VOS Viewer)

Table 5 indicates the keywords co-occurrences in different clusters and their focus. For example, the focus of the first cluster (Red) indicates the role of financial management related to some common expenditures like health insurance, funding, and health expenditure for the healthcare units in the Middle Eastern region. It indicates that financial management played a very important role in these types of expenditures. Similarly, the focus of 2nd cluster (Green) indicates the role of financial management in healthcare financing and their relevant costs in the target region. It means that the 2nd most important role played by financial management in healthcare units of Middle Eastern region is to influence healthcare financing, and its related cost. Furthermore, the focus of 3rd cluster (sky blue) indicates the role of financial management in healthcare insurance and their related costs in the target region. It means that 3rd most important role played by financial management in healthcare units of Middle Eastern region is to influence the health insurance coverage and its related costs, especially in public hospitals.

Table 5.

Co-Occurrence Analysis of Keywords

Cluster & Color	Keywords	Links	Total Link Strength	Occurrences
1. Red	Financial Management	17	179	108
	Health Insurance	16	97	28
	Funding	10	23	7
	Universal Health Insurance	11	23	6
	Health Expenditure	9	22	5
	Universal Health Coverage	10	19	5
2. Green	Health Care Cost	14	86	25
	Health Expenditures	13	73	17
	Health Care Financing	11	55	13
	Healthcare Financing	11	47	11
	Financing, Government	12	43	10
3. Sky Blue	Insurance	15	32	9
	Insurance, Health	14	29	8
	Hospitals, Public	8	19	9
	Financial Management, Hospital	7	18	6
	Hospital Cost	7	18	5
	Hospital Costs	7	18	5

(**Source:** VOS Viewer)

Conclusions

The study contributes the current knowledge on the research trends for financial management practices in the healthcare sector of the Middle Eastern region. It includes the identification of top authors, journals, countries, and articles from the Middle Eastern region for target domain and region of the study. The researcher used the Scopus database to extract data on 5 March 2024 using the major key term financial management in healthcare. The researcher applied several restrictions to achieve its objective affiliated countries were Middle Eastern region, the document type was an article, subject area was healthcare and medical, etc. The researcher was able to extract 110 documents after applying all the necessary restrictions for bibliometric analysis. The initial analysis using Scopus indicates the most influential journals, authors, countries, and articles for target research domains like financial management in the healthcare units of the Middle Eastern region. It include Eastern Mediterranean Health Journal, Ammar, Walid S (from Lebanon), Iran, and "Past, present, and future of global health financing: A review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995-2050" (published by "The Lancet") respectively.

However, the bibliometric analysis using VOS-Viewer software indicates co-author country analysis, and keyword co-occurrence analysis using network visualization, and overlay visualization. The findings for co-author network visualization indicated that Iran collaborated with Lebanon, and Egypt collaborated with Jordon for research related to financial management in healthcare in Middle Eastern region. However, Saudi Arabia did not collaborate with any other Middle Eastern

country for the target domain of research. Similarly, the findings for co-author overlay visualization indicated that Lebanon, Saudi Arabia, and Palestine represent higher citations while Iran and Egypt indicate lower citations through research collaboration for financial management in the healthcare sector of the Middle Eastern region. Moreover, the keyword co-occurrence analysis using network visualization indicated that financial management in the healthcare sector of the Middle Eastern region co-occurred with the following keywords; health expenditures, healthcare financing, hospital financial management, hospital costing, hospital funding, and public hospitals. Furthermore, the keyword co-occurrences using overlay visualization indicated that hospital cost, financial management in hospitals, public hospitals, and Govt funding are the keywords that were highly concentrated in this region. However, healthcare financing, funding, health expenditure, and universal health insurance were less concentrated keywords in this region. Finally, the keyword cluster analysis indicated that financial management plays a significant role in health insurance, funding, health-related expenses, healthcare financing, healthcare cost, and healthcare insurance in Middle Eastern region.

Some limitations can influence the findings of this study. The limitations include the specific focus on Middle East region, and exclusive use of Scopus database. The specific focus of this study was the financial management practices in the healthcare industry of Middle East. Therefore, the findings cannot be generalized to other regions, and sectors. Furthermore, the use of Scopus as the database for bibliometric analysis may also restrict data. There might be more data on other databases that could be utilized in combination of Scopus database to explore much better trends, and patterns related to the target domain.

The findings of this study is important for a number of stakeholders. For example, it can guide the practitioners, policymakers, and administration in the healthcare sector of the Middle Eastern region about how they can efficiently use their financial management practices in their healthcare sector by managing their healthcare expenses, cost, financing, funding, and insurance-related cost. The future researcher can plan their studies based on keywords with fewer concentrations relating to the healthcare sector in the Middle Eastern region.

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Christian Concepts in the Works by the Ukrainian Poet Viktor Boiko

Християнські концепти у творчості українського поета Віктора Бойка

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Abstract

The article aims to analyse the quantitative and qualitative aspects of the implementation of elements of Christian concepts "God" and "Soul" in the language of poetry by Viktor Boiko – Ukrainian artist of the late twentieth – early twenty-first century. A comprehensive qualitative analysis is employed to study the peculiarities of verbalization of numerous semantic planes of the mentioned concepts in the works by Viktor Boiko. It has been found that in the Ukrainian language space elements of the Christian conceptsphere are realised in biblical, folklore and linguistic interpretation, in semiotic and verbal planes, in synchronic and diachronic aspects and are accordingly reflected in the language of Ukrainian writers.

It has been concluded that the elements of the concepts of "God" and "Soul" are a part of the linguistic picture of the world of any ethnic group, which manifests the language of poets

Анотація

Мета статті- проаналізувати кількісний і якісний аспекти реалізації елементів християнських концептів «Бог» і «Душа» в мові поезії Віктора Бойка – українського митця кінця XX – початку XXI ст. Комплексний якісний аналіз застосовано для вивчення особливостей вербалізації численних семантичних площин згаданих концептів у творах Віктора Бойка. З'ясовано, що в українському мовному просторі елементи християнської концептосфери мають реалізацію в біблійній, фольклорній і власне лінгвістичній інтерпретації, у семіотичній та вербальній площинах, у синхронічному й діахронічному аспектах і відповідно відображені в мовотворчості українських літераторів.

Установлено, що елементи концептів «Бог» і «Душа» входять до мовної картини світу будь-якого етносу, з чим маніфестують

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who show their attitude to a higher power as a protector and interlocutor. That is why Viktor Boiko, as a Ukrainian poet, syncretically combining patriotism and lyrics, politics and everyday motives, satire and good humour in his works, looking for certain trends in the universe, turns to Christian concepts within the framework of "quiet poetry".

Keywords: concept "God", concept "Soul", Viktor Boiko, poetry, linguistic picture of the world.

мовотворчість поетів, які виявляють своє ставлення до вищої сили як захисника і співбесідника. Тому й Віктор Бойко як український поет, синкретично сполучаючи у своїх творах патріотизм і лірику, політику й побутові мотиви, сатиру й добрий гумор, шукаючи певних тенденцій світобудови, звертається до християнських концептів у межах «тихої поезії».

Ключові слова: концепт «Бог», концепт «Душа», Віктор Бойко, поезія , мовна картина світу.

Introduction

The moral state of the individual plays an important role in its socialization in society. No matter what country in the world, it is obvious that religion affects the lives of millions of people. Accordingly, vocabulary and especially phraseology, which use units to denote higher powers and other sacred concepts and symbols, characterize ethnic groups as peaceful and democratic.

These aspects in the context of the study of literary art began to play a significant role in the late twentieth century, when the research of linguists became anthropocentrically oriented, and within this orientation as a field of research is linguoconceptology. This person is, for example, a poet (writer), who thus combines concepts – elements of the ethnic linguistic picture of the world – in his own author's conceptosphere. One of the most commonly used concepts in fiction is "God" and "Soul", which are widely used in terms of semantic planes, which combine many core and peripheral elements. Thus, since in almost all religions God is the creator of the universe, the meaning of "the giver" can be considered the most relevant, although the semantics of "ruler" also positions such uniqueness and absoluteness (corresponding to the artistic and semantic content "God is the creator"). Note that this is a pre-Christian era. For example, the ancient Indian religion proclaimed the absolute beginning of Brahman, from which the whole world originates; the cosmogonic myths of Ancient Greece derive the existence of life from Chaos, Cronus and Gaia; adherents of Hinduism are convinced that the world arose from the sacrifice of Purusha or from the breath of the god Vishnu; in Christianity, there is an understanding that God created everything from nothing; in Islam it is stated that the world was created by Allah. Thus, almost all the world's religions speak of the divine beginning of the universe. Closely related to the previous interpretation is the understanding of God as a father, because he, as the creator, is the father of all things.

As the problem of development (revival, formation, assimilation, affirmation) of spiritual values is extremely relevant today – important mental structures in human consciousness that are directly related to morals and worldview, verbal expression of Christian concepts in Ukrainian literature, including poetry, becomes crucial in the face of fierce confrontation with the imperial forces that are trying to destroy Ukraine as an independent unitary state with its own national culture and language.

In such a socio-political context, poetry should be part of a complex that must defend both the spiritual values of the leading ethnic group and the state independence itself, and the poet is a brave and patriotic warrior. Such is the Kharkiv author Viktor Boiko, whose works correlate the signs of culture with the lexical-semantic system that can integrate society, unite people as a nation, and give a proper response to the challenges facing Ukraine and humanity.

Literature review

Several scientists and researchers have explored Christian concepts such as "God" and "Soul" from various perspectives, including psychology, neuroscience, and philosophy. A neuroscientist and professor of integrative medicine, Newberg has conducted extensive research on the neural correlates of religious and spiritual experiences. His work includes studies on the brain's response to prayer, meditation, and religious rituals (Newberg & Newberg, 2014).

A philosopher of religion, Swinburne has written extensively on the existence and nature of God. His work includes arguments for the existence of God based on the cosmological, teleological, and moral dimensions of the universe (Swinburne, 2004).

Alvin Plantinga a philosopher known for his work in epistemology and the philosophy of religion, has written extensively on the rationality of belief in God. His work includes the development of the "Reformed epistemology" and the "Evolutionary argument against naturalism" (Plantinga, 2003).

William Lane Craig, a philosopher and theologian, has written extensively on the philosophical arguments for the existence of God, including the Kalam cosmological argument and the moral argument (Craig, 2008). John Polkinghorne, a physicist and theologian, has written extensively on the relationship between science and religion. His work includes explorations of the nature of God, the soul, and the afterlife from a scientific and theological perspective (Polkinghorne, 2009).

Francis Collins, a geneticist and former director of the National Institutes of Health, has written on the compatibility of science and faith. His work includes explorations of the scientific evidence for God and the implications of genetics for the concept of the soul (Collins, 2006).

Robert J. Russell, both a physicist and theologian, has delved deeply into the intersection of science and religion. His writings encompass inquiries into the essence of God, the soul, and the afterlife, approached through both scientific and theological lenses (Russell, 2008). Keith Ward, a philosopher and theologian, has written extensively on the relationship between science and religion. His work includes explorations of the nature of God, the soul, and the afterlife from a scientific and theological perspective (Ward, 1996).

Nancey Murphy, a philosopher and theologian, has extensively explored the dynamic between science and religion in her writings. Her body of work delves into inquiries regarding the essence of God, the soul, and the afterlife, examining them through both scientific and theological viewpoints (Murphy, (s.f)).

John Hick, a philosopher of religion, has written extensively on the nature of God and the soul from a religious pluralist perspective. His work includes explorations of the concept of God in different religious traditions and the implications of religious diversity for the concept of the soul (Hick, (s.f))

John Locke, in his "Two Treatises on Government", acknowledges the importance of religious beliefs and concepts like "God" and the" Soul" in shaping individuals' worldview. Locke acknowledges the existence of God and considers belief in God to be foundational for a person. Locke discusses the concept of personal identity and consciousness, which are relevant to the understanding of the self or soul (Locke, 2020).

In Bernard Werber's works, particularly in the "Les Fourmis" trilogy, "L'Empire des Anges", and "Nous les Dieux" trilogy, he often explores philosophical and metaphysical themes, including the concepts of "God" and "Soul". Through the narrative, Werber presents various perspectives on these concepts, offering readers opportunities to contemplate questions about the nature of existence, the meaning of life, and the role of higher powers or divine beings.

The social and historical aspects intersect with religious themes, the culturological and political planes of the general information complex are correlated in Bernard Werber's works (Demchenko et al., 2021).

Olha Chernenko highlighted the concept of Viktor Boiko's linguistic worldview as a component of the poet's thinking, identified the most significant events in the author's life and work, emphasized the artistic comprehension of spirituality, drew parallels between the linguistic and philosophical worldviews, analysed the connections between cultural and spiritual values, and highlighted the specifics of the poetic speech of the master of the artistic word, the peculiarities of his worldview, and the individual manner of constructing a poetic work (Chernenko, 2017a; Chernenko, 2017b; Chernenko, 2022).

Methodology

The methodology employed in this study encompasses a comprehensive qualitative analysis of literary works, with a particular emphasis on the intricate incorporation of Christian concepts, such as "God" and "Soul," within the rich tapestry of Ukrainian literature. This analysis has been meticulously conducted within the expansive framework of linguoconceptology, a dynamic field of scholarly inquiry that delves into the intricate interplay

between language and culture, shedding light on how linguistic expressions encapsulate and convey cultural beliefs and values. To ensure rigor and depth in the examination process, both deduction and induction, recognized as fundamental scientific methods, have been judiciously applied. These methods serve as robust analytical tools, enabling the exploration and interpretation of the nuanced manifestations of Christian concepts within the literary landscape of Ukraine, offering valuable insights into the broader cultural, social, and philosophical dimensions embedded within these literary creations.

Results and discussion

One of the defining features of the modern Ukrainian mentality is the return to culture and language of realities that are closely linked to the religious life of society (Chernenko, 2020, p. 120). The spiritual life of man is inconceivable without the concept of "God" (Levchenko et al., 2021, p. 107). According to Kostiantyn Holoborodko, in the linguistic space of Ukrainian literature almost every writer addresses the image of God or considers the problem of seeking God (Holoborodko, 2017).

That is why the authors of fiction take on the function not only to address God personally, but also to determine his essence and role in human life. The poetic work by Viktor Boiko, a Ukrainian poet of the second half of the twentieth century, is not an exception.

This author from Slobozhanshchyna is known as a literary and public figure, poet, translator, activist of the Ukrainian Cultural Foundation, Kharkiv Literary Museum, a member of the National Union of Writers of Ukraine. His style is characterized by a certain syncretism, combining political and domestic themes, urban and rural, satire and poetry (for example, the possibility of a syncretic combination of elegiac and panegyric elements noted by researchers (Lastovets et al, 2021). Thus, the title of the poem "Jerusalem and the Nightingales" combines incompatible concepts, each of which requires a detailed description, and its elements do not show noticeable connections with the elements of the other.

Like most Ukrainian poets, Viktor Boiko, according to A. Tretiachenko, focuses on the search for ethnic "origins", "roots", "traditions", obeys the motives of patriotism – love for his native land, describes native landscapes, shows

skill as an intimate lyricist (Tretiachenko, 2013), he is part of a cohort of authors of "quiet poetry" ("quiet lyrics"). The features of "quiet poetry" are meditative (according to the interpretation of the author's team of scientists – the search for "another kingdom" (Dudareva, 2022), elegiac, deep psychologism, i.e. not actually patriotic rhetoric, certain spectacular declarations, and in simple form hidden deep meaning, analysis of historical retrospective and proposal perspective. In Viktor Boiko's poetic language, the reader notes not slangs, colloquial forms, exclamatory and interrogative modulations, but emotionally rich expressive elements that help to transform ordinary typical situations and universal virtues into aesthetic examples of life positivity.

This complex logically includes the system of spiritual values of the Ukrainian people, among which are traditionally defined and certain concepts implemented in the ethnic language of the world – "village", "steppe", "river", "house", "mother" and others. Under certain conditions they acquire the status of conceptospheres, expanding their semantic and linguistic content. Such a unit is the concept of "God", which is traditionally verbalized by the units "God", "Christ", "Lord", "Jesus", "Son of God", "Savior". In addition to them, Viktor Boiko also has theonyms for Slavic pagan gods – "Volos", "Berehynia", "Stryboh", which is not surprising, since Ukrainians have the so-called two-faiths.

The poet actualises the concept of "God" in the artistic and semantic content of "supernatural being" through the semantic planes "God – love", "God – truth", "God – justice", "God – help", "God – forgiveness", "God – atheism" and others, among which the demonstrators of human spiritual and moral virtues dominate – "goodness", "sincerity", "mercy", "honesty" and so on. In this case, the awareness of God as the creator of all things is explained through the nucleus unit "father" (in the semantic context of "God the Father"). The poet also actualises the peripheral semantic fillings "God is ecology", "God is the historical past" and even "God is the player".

In the poetry by Victor Boiko there are microcontexts, which reveal the usual meanings of the semantic plane "God is a supernatural being", within which several artistic and semantic contents are distinguished. This is, in particular, "God – prayer", because this is the way a person turns to God (the poet) through the traditional phrases "pray to God", "stay to pray to God", "pray as God". As we can see, in this

context, the verbs "pray" and "beg" are synonymous, and to this can be added the traditional "thank you (God)".

Thus, in modelling the semantic plane "God is a supernatural being" and its artistic and semantic content, the poet mostly uses the expression of predicative phrases in which verbs are combined with nouns, specifying the actions performed by a higher power, thus expanding the positive semantic connotation. Through such constructions, there is an objectification of conceptual meanings that characterize God as the subject of treatment, when the lyrical hero manifests the position of the bearer of predicative features.

In the semantic plane "God – forgiveness" the author uses traditional folk stamps, which have the character of order: "Lord, forgive", "Forgive me, God", "May God forgive" and manifest the eternal faith of man in a higher power, that he can forgive. That is why God is characterized by the signs of "merciful", "long- suffering", "just", "forgiving".

In the semantic plane "God is help", the analysed concept also reveals traditional language forms: "God helps us", "let him take us out of trouble" and, finally, "We are all atheists for a while, / when we do not need help". Here, Victor Boiko utters a biblical reminiscence that all people consider themselves independent, self-sufficient as long as they do not experience insurmountable difficulties, and thus necessarily remember God. In the semantic plane "God is love" in the axiological dimension there are also various contexts: "they dream that only the Lord loves them", "Happiness is in our hearts, and that is in love. Because out of love the virgin gave birth to a son".

And if "in the Old Testament love is the driving force of God's actions, but only in the New Testament the love of the Father for the Son through sacrifice brings salvation to man and gives him new life" (Matskiv, 2012). That is, it was out of love for humanity that the Son of God, Jesus Christ, came into the world of men, where he died a martyr's death. Accordingly, negative sentiments evoke the expression, conversely connoted, "God has fallen out of love with us".

In the semantic plane "God is mercy" it turns out that people have always sought to believe that a higher power will help, promote and love them (often through explication in the image of a guardian angel). There is a maxim in the human mind that God embodies mercy, and such a linguo-visual vision is presented in Victor Boiko's poetic idiosyncrasy by means of appropriate features marked with the adjective "merciful", noun "mercy", for example, "God will be merciful"; "God's mercy". At the same time, the poet personifies the world, addressing it and using allusions to history in the Old Testament of the Flood, where the rainbow is perceived as God's promise never to arrange a global flood again.

In the semantic plane "God is truth, justice" a higher power is associated in the human mind with absolute truth and justice, because in order to find truth / truth, the sages sent man to God ("to Christ would go". That is, God is the personification of truth, although the author argues that there is no need to seek justice in this world, because no one has the address of Christ. In the semantic plane "God is the Father" the lexical and semantic manifestos "Children of God", "Heavenly Father", "Child of God", which presuppose parental care, have already been revealed.

Among the units of the core zone of artistic and semantic content of the concept of "God", we have chosen the most ambiguous and profound in terms of semantic analysis and associativity:

– "director" – the function of direction ("director, as it is, only God". In this metaphorical microcontext there is an allusion to Shakespeare's famous saying that the whole world is a theater, because only God controls the life scenario;
– "above the hetman" – the function of government ("above them only God", "today the senior Catholic God". Here is the supreme power of the highest power over any secular leader – whether king, king, hetman or president. Accordingly, he knows everything, knows everything,
– "doer" – the function of planning "God shuffles the deck of fate" a kind of game in life.

Thus, as an intermediate conclusion, it can be noted that the concept of "God" belongs to the important linguistic formations in the creative search of Victor Boiko and explains a number of semantic fillings-planes. These include "God is a supernatural being," "God is love," "God is mercy," "God is justice," "God is help," "God is forgiveness." Most often in these artistic and semantic fillings the author uses syntagms with predicative features that connote the admiration of the almighty higher power that can help, protect, save, and is the embodiment of the

system of spiritual and moral virtues and historical past ethnic group. In modeling these artistic and semantic fillings, the poet uses a variety of paths and stylistic figures.

Elements of the concept of "God" in the conceptosphere of "Christianity" are interconnected with the concept of "Soul", which also forms a poetic picture of the world of Victor Boiko, because the idea of the soul as an immortal substance characterizes almost all beliefs. In ancient times, people thought about the differences between living and inanimate matter, believing that the soul has the properties of matter or contained in the blood (because after death man stopped breathing), in a dream the soul separates from the body and travels.

The token "soul" with almost the same morpheme structure exists in almost all Slavic languages, which is etymologized from the monosyllabic Proto-Slavic, related to Lithuanian, with the semantics of respiration. This may be a tracing paper from Latin and Greek, where the meanings of "soul" and "spirit / breath / wind" coincided. Similarly, with the token "spirit", which is also related to the Lithuanian semantics of "air, unknown warm country, paradise".

At the academic level, the word "soul" reveals the following definitions: the inner mental feelings of man; in religion – the immortal intangible basis in man, which distinguishes it from the animal; a set of traits inherent in a particular person; feelings, energy; positive person; the central figure of something. From this, as well as from the Ukrainian folklore tradition, we can determine the core artistic and semantic content "soul – disembodied essence", "soul – human qualities", "soul – human qualities", "soul – man", "soul – inspiration", "soul – the main essence"; core "soul – fire", "soul – moral virtues", "soul – breath", "soul – conscience, honesty", "soul – breath", "soul – a living being", "soul – a bird"; peripheral (author's) "soul – death", "soul – river", "soul – plant", "soul – song", "soul – thing", "soul – container", "soul – national idea", "soul – oblivion".

In the language of Victor Boiko's poems, the main representative of the concept of "Soul" is the key word, there is also the token "spirit", but much less often.

In the semantic plane "Soul – man" such a linguo-visual vision is realized mainly through the traditional phrase "living soul", which sometimes distinguishes a person in an urban context (for example, the author sees individuals among machines). A more specific counterpart, the phraseology "no soul" also verbalizes the phenomenon of the absence of people, but is a substitute for the negative pronoun "no one". It's the same, but when it comes to designating objects, we fix it in the "two souls" situation.

The semantic plane "Soul is a disembodied entity" is realized in several semantic planes, among which – "soul – spirit", "soul – disembodiment", "soul – eyes", "soul – pain", "soul – sinfulness", and is realized most often as an object of action "hits the soul with laughter", "flows into my soul", "does not take soul from me". The semantics of birth fills the phrase "and the soul is cut" by analogy with the eruption of teeth in a child and becoming, which is a painful process, involves gaining experience, meeting with not always a good world. The variant of the token "soul", "spirit" is dynamic and has the sign of "light", which allows it to fly ("spirit flies", "spirit flew"), soar ("spirit soars").

In the semantic plane "Soul – sinfulness" indicates the imperfection of man through the sign of "sinner", which can be meaningful "sinful souls fly", "on our sinful souls", "Living in sinful souls", part of the traditional phrase to denote the actual people ," past the sinful soul", two for a sinful soul", as well as part of the comparison or metaphor "If the arrows are our sinful souls", "I took a lot of sins on my soul", "a strong good soul". Note that the first situation is an allusion to the Doomsday Clock, located in the city of Chicago, where the Council of Experts periodically decides to transfer the arrows. The time left before midnight symbolically reflects international relations, as well as the general state of society. The onset of the north symbolizes a nuclear crisis. So, Viktor Boiko, comparing the hands of the earth's clock with souls, hints that people are able to change the course of history, to influence events in the world. However, the epithet "sinners" here indicates that even in the twenty-first century, people have not learned kindness. The imperfection of man is evidenced by the use of the enduring phrase "take sin to heart" – to do something contrary to their own beliefs.

The semantic plane "Soul – eyes" reflects the popular folk phraseology "eyes are the mirror of the soul", because it is the eyes that convey the full range of human emotions, and the view can be much more eloquent than any words.

Naturally, the poet can combine the words "soul" and "eyes", "look", "see" even in one microtext.

In the semantic plane "Soul – pain" is realised a constant unit of "mental pain", which conveys a difficult emotional state associated with negative experiences. That is, the soul is also able to experience pain, which at the lingual level is manifested by the corresponding verbal metaphor "the soul hurts", "the soul will stop hurting"), "therefore it hurts", "Thought will irritate the soul". The last example uses a metaphorical substitute for mental pain, which can be expressed with the help of a permanent compound "stone in the soul" . Thus, the positive and negative emotions of life, which a person passes through the soul during life, are deposited on the soul like a stone; verses verbalised by the poet – wind, storm – are able to "blow", "blow out" the soul, they are symbols of life's troubles, disasters that can cause pain. Also, in this context, the verb "to hurt" is not to hurt the soul. In the semantic plane "Soul – loneliness" the core is a sign expressed in the personified combination "lonely soul" with variants "from loneliness the soul seeks medicine", "alone" (reduplicated adjective representing a high degree intensity of this feeling), as well as a constant metaphorical connection "emptiness in the soul", which will warm the eye.

Similarly, negative is the plane "Soul – grief", where the relevant visions are verbalized by the poet through metaphors that actualize perceptual sensations of various kinds. For example, the visual image created with the adverb "black" conveys negative connotations, and syntagmatic compatibility with the noun "shroud" complements the picture, creating a depressing mood, conveying an atmosphere of grief: "windows shut the shroud", "black on the soul", "black in the head", "black on the soul".

The semantic plane "Soul – disappointment" is realized in the verbalization of tactile sensations, mainly the temperature connection "cold in the soul", which has options "not warm in the soul", "cold soul can overcome fatigue", "in the souls of permafrost", and actually touching "prickly soul". There are also taste reflections with pejorative coloring: "the soul is not yet bitter".

Negatively connoted motives related to the plane of pain are also explained in the semantic plane "Soul is an insult". For example, in the metaphorical combination "insult does not liberate the soul" or using the phrase "wipe your feet" "wipe your feet on the soul".

The semantic plane "Soul – fear" is realized by a small number of word usages to denote fear. For example, the attribute "something hares in the soul" corresponds to the constant combination "hare soul", which traditionally means fear, or the existing personified image of fear ("fear haunts").

The positively connoted plane "Soul – tenderness" reveals examples of the semantics of intersubjective attitude. In particular, in the sentence "I will cling to your tenderness with my soul" the metaphorical form of the indicated linguistic vision is conditioned by the warm attitude of lyrical characters to each other.

The semantic plane "Soul – love" is verbalised in the poet's language with the help of possessive pronouns, as well as nouns and verbs with the semantics of mutual attraction: "your soul is my need", "Your and my soul once again clung", realizing cognitive associations with something high, bright and beautiful. This is helped by the tautological repetition: "Let the soul into the soul with joy", "Soul from the soul, like a star from a star", "Where the soul is without a soul, like a wound".

The semantic plane "Soul – courage" is realised, in particular, through the epithets: "little darling" , "Cossack soul", "not from the shovel soul".

In the nucleus zone we distinguish the following components:

– "Soul – fire / heat" (metaphors with the implicit image of fire "warms the soul", "someone warmed my soul"; metaphors of the genitive type "tar of the soul"), on fire from above"; metaphors with chiasm "human soul is trying to warm"; metaphorical image of fire "my soul is burning". Also, in this area we define the active use of verb forms "burns", "burns", "burned" that correspond to the negative connotations of "harm, pain, hit." On the other hand, positive connotations are manifested in the metaphor of "to warm the soul".
– "The soul is a living being" the humanization of the soul is facilitated by verbal metaphors in which the soul is able to perform actions inherent in man – to listen, want, write, cry, cry, wander: "the soul wants", "The Soul of the Wanderer", "the soul cries to someone", "the soul cries out", "the soul hurries". The artist here actualizes the expression of metaphorical actions of the soul). Also, in this plane are actively

involved signs – epithets, expressed by adjectives and adjectives "singing", "defeated", "young", "right", "quiet", "alienated", "human"; the soul comes to life through the form of treatment (including paremia – "walk the soul without kuntusha") and somatism (it has eyes, knees and other human features);

- "Soul – moral virtues" transmitted through metaphors and epithets: "the artist is great in the soul", "out of place soul", "they have nothing but the soul".
- "The soul is a bird." One of the most widely used associations, due to the ancient beliefs of the Slavs. In Viktor Boiko's language work – "birds and souls meet", "stork's soul".

In the peripheral zone we distinguish the following components:

- "Soul is death". In many religions, death is associated with the separation of the soul from the body, when the body remains in this world and the soul flies to another one in Viktor Boiko's poetry: "The soul flies away into eternity", (used euphemisms to denote death), "my soul does not breathe incense" (euphemism to denote the weakening of health).
- "Soul is a song". This linguistic and cultural vision is due to the fact that the song is an expression of the inner world of the performer, and therefore, his soul. The poet says, "the flute is my soul", "only the soul would sing sometimes", "long in the soul to sing songs", "on at dawn the soul swells".

Thus, the analysis of the concept of "Soul" allows us to assert that the linguistic picture of the world by Viktor Boiko establishes the priority of spiritual values over material ones, although at the same time demonstrates their dialectical unity. The core elements of the concept are realized in the following semantic contents-planes: "soul – disembodied essence", "soul – human qualities", "soul – man", "soul – inspiration", "soul – the main essence"; "soul – fire", "soul – moral virtues", "soul – breath", "soul – conscience, honesty", "soul – breath", "soul – a living being", "soul – a bird"; peripheral (author's) – "soul – death", "soul – song".

Conclusions

Analysing the peculiarities of the linguistic expression of the implementation of the elements of the Christian concepts "God" and "Soul" in the language of poetry by Victor Boiko, we can draw the appropriate conclusions:

- Elements of the concept of "God" are part of the linguistic picture of the world of any ethnic group. Accordingly, they are important in poetry, manifesting the author's language, which is characterized by expressiveness and deep psychology. Also in Ukrainian linguistic culture, the very word "God" means not only a supernatural force, but also a relative to an individual, a believer, a defender and interlocutor. That is why the poet, explicating the image of God on the whole reality of life, compares himself to him in his own feelings;
- Viktor Boiko is a Ukrainian poet of the turn of the century, and therefore his work syncretically combines love for his native land and deep lyrics, political and everyday motives, satire and good humour. And it is the artist's eternal search for his ethnic roots, certain trends in the universe that determine his attention to the concepts of "Soul" and "God". At the same time, researchers attribute his works to the so-called "quiet poetry", which is characterized by meditation, elegia, deep psychology, analysis of historical retrospect and the proposal of perspective;
- The concept of "God" in the poems by Viktor Boiko manifests a number of meaningful planes: "God – a supernatural being", "God – love", "God – mercy", "God – justice", "God – help", "God – forgiveness" belonging to the nuclear zone; The elements of the core zone define the deep in the sense of semantic analysis and associativity unit "director", "above the hetman", "executor", which correspond to the functions of management, planning and assistance. They are realised within the framework of metaphorical constructions and various stylistic figures;
- The concept of "Soul" is also an active part of the poetic picture of the world by Viktor Boiko, revealing the following core planes of meaning: "Soul – man", "Soul – disembodied essence", "Soul – sinfulness", "Soul – eyes", "Soul – pain", "Soul – loneliness", "Soul – grief", "Soul – disappointment", "Soul – insult", "Soul – fear", "Soul – tenderness", "Soul – love"; "Soul – fire / heat", "Soul – a living being", "Soul – moral virtues", "Soul – a bird"; peripheral – "Soul – death", "Soul – song". These elements fully correspond to the ethnic language picture of the world,

representing not only the author's idiosyncrasy, but also Ukrainian culture in general.

Thus, the verbal realisation of the Christian concepts of "God" and "Soul" in the poetry by Viktor Boiko reveals the philosophical content and deep psychology of his interpretation of the universe, metaphorical saturation of his language and even a certain priority of spiritual values over material, albeit in their dialectical unity.

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Interplay of tradition and modernity in contemporary art practices

Interacción entre tradición y modernidad en las prácticas artísticas contemporáneas

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Abstract

The purpose of this article is to examine the profound transformation of artistic consciousness in recent years, drawing attention to the relationship between traditional philosophy and art and modernity. Despite the instability of this connection, art today reflects the reality of our time and focuses on social problems and political revolutions. Using the method of literary analysis and processing of such databases as Scopus, Google scholar and Research Gate, the paper analyses the impact of postmodernism on contemporary art and culture, expanding the horizons of interpretation and understanding of the image in art. The results of the work revealed theories that enable each individual to express their ideas and views through art, creating new ways of perceiving the world around them. It has been shown that the interaction of tradition and modernity in contemporary art practices occurs through the image as a key element of postmodernism, which plays an important role in the modern world. Visual perceptions, symbolism, fantasy and imagination are combined in the work

Resumen

El propósito de este artículo es examinar la profunda transformación de la conciencia artística en los últimos años, llamando la atención sobre la relación entre la filosofía tradicional y el arte y la modernidad. A pesar de la inestabilidad de esta conexión, el arte actual refleja la realidad de nuestro tiempo y se centra en los problemas sociales y las revoluciones políticas. Utilizando el método de análisis literario y procesamiento de bases de datos como Scopus, Google Scholar y Research Gate, el artículo analiza el impacto del posmodernismo en el arte y la cultura contemporáneos, ampliando los horizontes de interpretación y comprensión de la imagen en el arte. Los resultados del trabajo revelaron teorías que permiten a cada individuo expresar sus ideas y puntos de vista a través del arte, creando nuevas formas de percibir el mundo que lo rodea. Se ha demostrado que la interacción entre tradición y modernidad en las prácticas artísticas contemporáneas se da a través de la imagen como elemento clave del posmodernismo, que juega un papel importante en el mundo moderno. Las percepciones visuales, el simbolismo, la fantasía

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of artists and contribute to the formation of reflective thinking. Husserl's philosophy and approaches to the perception of entities helped to develop reflection and understanding of the contemporary socio-cultural environment through the image as a "condition of possibility" for perceiving the world. We conclude that the visual dimension reflects the social construction of the gaze and the atmosphere of our time, reflecting the unique spirit of the era in which we live. The result is a relevant and important understanding of the importance of the image in contemporary culture and the impact of tradition on society.

Keywords: Artistic consciousnesd political revolutions, using the method of literarys, traditions, postmodernism, practices, contemporary art.

y la imaginación se combinan en el trabajo de los artistas y contribuyen a la formación del pensamiento reflexivo. La filosofía y los enfoques de Husserl sobre la percepción de entidades ayudaron a desarrollar la reflexión y la comprensión del entorno sociocultural contemporáneo a través de la imagen como una "condición de posibilidad" para percibir el mundo. Concluimos que la dimensión visual refleja la construcción social de la mirada y la atmósfera de nuestro tiempo, reflejando el espíritu único de la época en la que vivimos. El resultado es una comprensión relevante e importante de la importancia de la imagen en la cultura contemporánea y el impacto de la tradición en la sociedad.

Palabras clave: Revoluciones políticas con conciencia artística. método de las literaturas, las tradiciones, el posmodernismo, las prácticas, el arte contemporáneo.

Introduction

The interaction of tradition and modernity in contemporary art practices is reflected in a wide range of cultural, philosophical and aesthetic aspects. The ideas of postmodernism, postcolonialism and postfeminism influence the development of contemporary art and culture, expanding the horizons of interpretation and understanding of a For instance, modern authors' photography and video artwork often explores the intersection of tradition and modernity in modern societies. She uses traditional imagery and symbols in a contemporary context to address issues of gender, politics, and society in the modern world (Kergel, 2023). These concepts help humanity to better understand the present by defining and analysing varirt. ous aspects of cultural and artistic life. This modern relationship between tradition and modernism creates new opportunities for expressing ideas, emotions and views of our contemporary world through art.

Over the past forty years, according to Hanna & Paans (2020), humanity has witnessed a profound transformation of artistic consciousness. Starting in 1964, when art became more open to rigorous philosophical theories, it seemed that a new connection between philosophy and art had emerged (Pippin, 2021). Philosophy is now seen as an integral part of the art world, whereas previously it was seen as something separated from it through a distance of alienation. The authors create immersive installations that blur the lines between traditional art forms and contemporary culture. Their work often challenges viewers to reconsider their perceptions of space, identity, and social norms through a combination of

traditional sculptural techniques and modern conceptual ideas (Melnyk et al., 2023). Thus, it can be argued that artists are indeed looking at aesthetics with new eyes, constantly returning to tradition through the prism of modernity (Simmons III, 2021).

Despite the fact that aesthetics and related theories resonate and are valued in art, this relationship remains unstable. Over the last thirty years, most aesthetic theories have moved away from "art", exposing it to postmodern art practices and theories (Slugan, 2019). The philosophy of art has significantly changed its trajectory, leaving contemporary art practices without proper analysis. Thus, the purpose of this article is to analyse in depth the related works of art historians and philosophers to explain contemporary artistic phenomena and the relationship between tradition and modernity.

Art today reflects the reality of our time, where politics, morality and ethics are becoming key topics. Artists focus on social issues, ethnic conflicts, and political revolutions (Cahn, Ross & Shapshay, 2020). Their goal is to create works that will provoke viewers, make them think about the essence of the modern world without turning away from tradition. They are not afraid to be critical and subversive, they want to be "engaged" in what is happening around them.

Art today is a tool for expressing thoughts, emotions and views on reality. Modern artists combine traditional portraiture techniques with modern elements by painting contemporary figures in the style of classical European portraits. This juxtaposition of tradition and

modernity challenges traditional representations of power and identity (Earley, 2023). In order to understand how the history - one of the possible histories - of certain artistic, aesthetic and philosophical positions has developed over the past two decades, the paper focuses on some of the preliminary conditions that made them possible, and then on how they were identified and theorised. The main theories that have influenced - and continue to influence - not only contemporary aesthetic concepts, but also, and above all, art and culture are examined.

The study begins with an analysis of the idea of postmodernism, which emphasises the breakdown of traditional values and emphasises the role of individuality and diversity. This approach to art allows artists to experiment and express their ideas without restrictions.

Thus, the purpose of this paper is to analyse in depth the interaction between tradition and modernity in contemporary art practices, focusing on the ideas of postmodernism. In particular, the work aims to reveal the impact of these concepts on the development of contemporary art and culture, to expand the horizons of interpretation and understanding of the image in art, and to support diversity and individuality in art. In order to achieve this goal, the paper covers the following issues:

1. What are the main ideas of postmodernism that contribute to the development of contemporary art?
2. How is the interaction between tradition and modernism reflected in the work of artists today?
3. What new possibilities for expressing ideas, emotions and views are opened up by the modern approach to art?

Answers to these questions will help us better understand the influence of contemporary concepts and traditions on art today, as well as reveal new perspectives on the development of art in the future.

Theoretical framework

Over the past 40 years, art has moved from modernism to modernity, but postmodernism remains an important link in this process. Despite criticism, postmodernism helps to avoid the totalisation of modernity and frees us from the limitations of the absolute concept of individuality. According to Melnyk, Shakun, Herasymenko, Nitchenko, Olkhovyk &

Kolievatov, (2023), postmodernity is defined by the recognition that totality can only arise from the absolute definition of separateness, which means that distinction and diversity are necessary.

Starting in the 1970s, postmodernism emerged in Europe as a new phenomenon in theory and practice that was strikingly fresh (Ioris, 2023). However, attitudes towards postmodernism quickly changed, and it came to be seen as a "complex and cautious newcomer", although it was also praised as an emancipatory cultural paradigm (O'Donnell, 2023). Despite this, the criticality of postmodernism remained unchanged. There have been attempts to reject postmodernism, arguing that modernity continues its journey and remains relevant. This attitude has also been expressed in concepts that still exist today, such as "parallel modernities", "second modernity" or "modernisation" in China (Kergel, 2023).

In order to identify important cultural features of modernity, in particular those related to aesthetics, it is possible to consider the rise of postmodern ideas as a starting point (Botvyn et al., 2022). The fascination with postmodernism and its constant attempts to define itself by defending itself against modernity can be important for understanding contemporary culture. From the perspective of the present, postmodernism is mainly a transitional phenomenon that reflects profound historical changes - the transition from industrial society and national cultures and economies to a post-industrial information society and globalised capital (Titkova, 2022).

In the early 1980s, one of the main theoretical issues was the question of the existence and nature of the fashionable cultural dominant of postmodernism (Sproesser et al., 2022). Although the answer to this question has not yet been clear, it is still relevant even in our time. To put forward some possible answers, the focus is on three theories that have attracted the attention of a wider audience than just aesthetics. In this context, the study focuses on the "aesthetics of cultural relations" and contemporary art theory.

An analysis of the interaction between tradition and modernity in contemporary art practices shows that the visual arts are perceived as a major branch of art that can influence philosophical and theoretical communities (Di Sabatino, & Mastrantoni, 2022). The authors analyse contemporary art by considering its impact on

global processes. They believe that artists and contemporary art are inseparable and mixed, which makes it difficult to define the boundaries between different cultural and geographical areas of the world (Chi & Belliveau, 2022). According to Say & Seng (2022), if we assume that changes in relation to the past and the future reflect an era of transformation, then the period in culture and art of the 1980s can be classified as such. The main current of this time, postmodernism, is the latest cultural paradigm that has been developed and exclusively theorised mainly in the European and American context (Baker & Joselit, 2022). As a concept and an empirical phenomenon, postmodernism also emerged in the field of architecture, which indicates the rejection of the previous cultural paradigm, which prevailed at that time, mainly in literature and art.

The notion of postmodernism became popular because it uniquely reflected various fragments of socio-cultural life. According to Jürgens & Hildbrand (2022), the term was initially popular only in literary criticism, but then it became associated with ultramodernity, breaking with tradition, and extremism.

Thus, postmodernism embodied everything that was previously considered negative in traditional critical theory and the avant-garde. While this statement was justified by Western canons, it was questioned in other countries and within the community: in Cuba, for example, the term "postmodernism" was banned because of its association with the United States. In China, it was seen as a concept of "modernity". In the countries of the former Soviet Union, on the other hand, postmodernism became an emancipatory social and cultural theory because of its openness to dogma (cultural or political), its search for eclecticism, and its "anything goes" approach. Postmodernism has also been positively received in small cultures, which have always favoured the cultural politics of appropriation and eclecticism within modernism. This cultural practice, previously understood as a sign of a lack of originality and a tendency to borrow, has been transformed: it is now seen as a manifestation of active participation in contemporary cultural trends.

The existing literature on the interaction between tradition and modernity in contemporary art practices tends to focus on the positive aspects of postmodernism and its impact on global processes. However, there is a lack of critical analysis of the limitations and contradictions inherent in postmodern art movements.

Future research could delve deeper into the power dynamics within the art world and how they shape the production and reception of contemporary art. Additionally, a more nuanced exploration of how different cultural and geographical contexts interpret and engage with postmodernism could provide valuable insights into the complexities of contemporary art practices. Exploring the ways in which postmodernism may reinforce or challenge existing power structures and inequalities in the art world could offer important perspectives on the role of art in society. Additionally, investigating how contemporary artists navigate the tensions between tradition and modernity in their work and how this is reflected in their artistic processes and outcomes could shed light on the changing dynamics of the art world.

A more critical and nuanced approach to the study of tradition and modernity in contemporary art practices could provide a deeper understanding of the complexities and contradictions inherent in the cultural production of our time.

Methodology

The work is based on the analysis of related scholarly literature in cultural theory and philosophy, referring to original texts and secondary literature studies that reconstruct various aspects. The literature search included research papers from 2020 to 2024 from such search engines as Scopus, Google scholar, and Research Gate. The question of the role of the image in contemporary art is quite extensive, and to consider it, the paper focused on the central aspect - the image (accordingly, these were the keywords selected for the search). Today, humanity is witnessing a revival and diversity of forms of the image that surround it, which leads to the fact that we are talking about a "civilisation of the image" or an "era of the image" (Jürgens & Hildbrand, 2022). The debate about the "fear" of the image, which arose in ancient times from the work of Plato, is still relevant today, reflecting the history of Western thought and generating distrust of the image. However, the epistemological revolution and the new scientific approach indicate a crisis in the scientific credibility of the tradition and restore the importance of the image in the cultural context.

The methods used to explore the profound transformation of artistic consciousness in the last forty years included an analysis of postmodernist theories and their impact on contemporary art and culture. Husserl's

philosophy was also used to develop reflective thinking and understanding of the contemporary socio-cultural environment through the image as a "condition of possibility" for perceiving the world. The importance of the image in contemporary culture and its impact on society was determined through the analysis of the visual dimension, symbolism, fantasy and imagination in artistic practices. The result is the creation of new ways of perceiving the world and the development of the creative potential of each person through art.

In order to address the working issues, a number of methods were used: analysis and classification of images in contemporary art, study of the history of the image and its development in culture, research of the influence of socio-political factors on the formation of images in contemporary art, analysis of the emotional and psychological impact of images on the viewer and ways of reproducing them in different artistic genres, research and analysis of the reception of images in contemporary society and their interaction with globalisation and multiculturalism, study of the role of images in shaping cultural values. The use of these methods allowed us to examine a wide range of aspects of the image in contemporary art and to reveal its importance in the cultural context of tradition and modernity.

Results and discussion

The interaction of tradition and modernity in artistic practices means that the image as a key element of postmodernity plays an important role in the contemporary world. Visual perceptions, symbolism, fantasy and imagination are combined in contemporary artistic creativity, playing a role in the formation of holistic reflective thinking. Husserl's philosophy and approaches to the perception of entities help to develop reflection and understanding of the contemporary socio-cultural environment through the image as a "condition of possibility" for perceiving the world (Fig. 1):

Figure 1. Interpretation of the image as a key element of postmodernity.
Source: Authors' own research.

The visual dimension reflects the social construction of the gaze and the atmosphere of our time, reflecting the unique spirit of the era in which we live (Dorren, 2024). In today's world, the image can be considered one of the key features of postmodernity, a prominent feature of our era. It is significant that the image, along with symbolism, fantasy and imagination, has returned to the forefront and played an important role. It is worth emphasising the intensity of visual perceptions, the image as a key form of our everyday life, where it is entangled in all spheres of society, and as a type of knowledge. According to Rugg's (2022) analysis, we can refer to a common "archetype" or mundus of the imaginary that covers the entire spectrum of thought. This mundus is expressed in visual perception, where our eye seems to be already used to work: spreading, accumulation and circulation are the processes that help the image take shape and fascinate our visual perception (Drummond, 2022). Phenomenological sensitivity, when the image draws our consciousness to entities, relating the individual to the world and introducing us to the "vision of entities" in Husserl's way.

Husserl's philosophy considers essence as the basis of true knowledge, which consists in the perception of absolute forms and allows us to develop reflection and thinking (Drummond, 2022). According to Husserl, access to essences is based on perceiving reality as it is and understanding things according to their revealed properties (Taylor, 2023). This philosophy is marked by the study of the "climatology" of our time, which takes into account the current socio-cultural environment and focuses on the image as a "condition of possibility" for perceiving the world (Brannigan & Lawson, 2023). The world is reflected in the visual dimension, where we can identify the social construction of the gaze that reflects the atmosphere of our time and the air we breathe, for example, as in the works of D.B. Waterman (Fig. 2):

Figure 2. Perceptions of reality that reflect the atmosphere of today.
Source: Db watermanart (2019)

Considering the centrality of vision and the image as a contemporary 'sensory' form, it is possible to understand that vision becomes a symbolic aspect of cognition, contributing to oculocentrism. This tendency, according to Earley (2023), arises from knowledge transmitted through images and interaction with visual experience. Ways of seeing and working with irrigation allow us to understand the world through a visual presentation consisting of various aspects of traditional experience conveyed through modern techniques. The centrality of vision promotes understanding through the "representational" nature of the image and reveals reality through the visualisation of the world through various media. The aim is to make the world present through visual metaphor.

In this aspect, according to Corey (2023), knowledge can be seen as experience in visual images, where it becomes a space for the consumption of experience. The image that emerges before us should be seen as a form of expression and communication that helps us to understand the world. This image can be seen as a means of reflecting on everyday life, as well as a part of a comprehensive sociology. In continuation of this idea, Abrudan (2023) notes that the transition from modernity to postmodernity can be expressed through immersion in a visual context where images become the basis for building social relations. In postmodern culture, images become the dominant cultural form of knowledge transmission.

A related work by Mullen (2023) describes one of the important aspects of the transition from modernity to postmodernity. According to the scholar, it is the use of visual context as a means of building social relations. In postmodernity, in contrast to traditional culture, where the verbal prevailed, visual images become the main means of expression. This leads to the pluralisation of images of the world and the constitution of the world as an image. According to Vidomenko, Levchenko & Lukianykhin (2022), the growing spectacularity of society, fuelled by technological development, is becoming more and more present, expanding the flow of production and consumption. We stand in solidarity, because we live in a "society of the spectacle", where only what can be visualised is important.

It should be added that, in addition to the criticisms that can be made about this "spectacle", Skakun (2022) adds that it should be realised that today's society receives information about different worldviews through the creation of photographs or films. These images can also be seen as a form of social presence and interaction. The transition from analogue to digital, which has become a feature of our time, intensifies these processes through the proliferation of digital cameras. It is becoming the norm and a daily routine. However, it is precisely because of its ordinariness that it acquires special significance. Banality, as sociologist Sayed (2023) argues, is part of an epistemological process where display and gesturation are important. Photographing or filming everyday life illustrates this idea (Fig. 3):
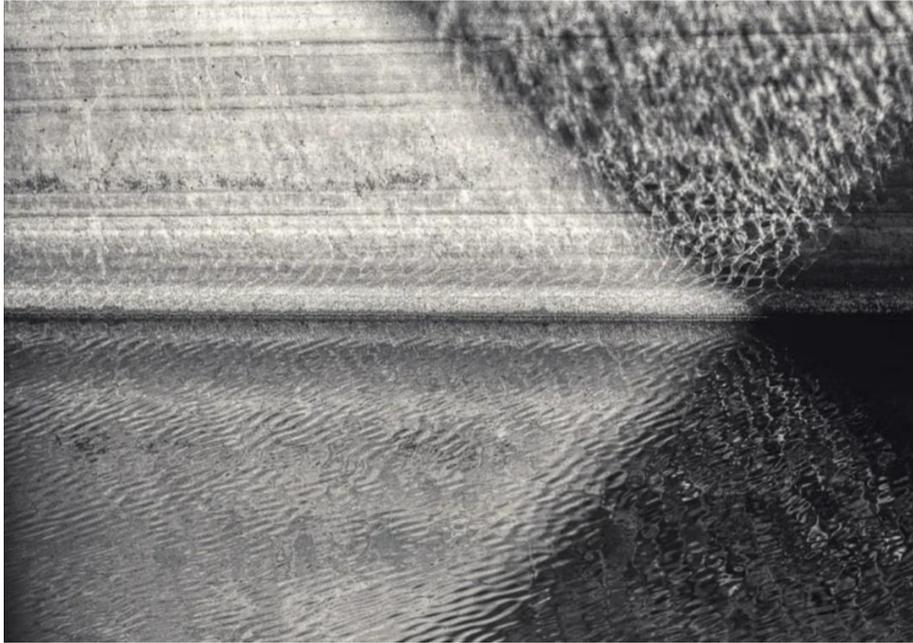
Figure 3. Lauri Novak art photographer, mentor, and autor.
Source: Lauri Novak (2024)

This may be perceived as an obsession, but it is actually an indicator of modernity, of social life permeated with visual elements, where visual narratives are created with the help of numerous devices that capture every moment of everyday life. Thus, the characteristics of the image society are becoming more pronounced according to the analysis of visual research theorists Stoliarchuk, Binkivska, Khrypko, Spudka, Chop, Chornomordenko & Salo (2024). The researchers emphasise the importance of visual experience and the centrality of everyday life in visual culture. This culture aims to understand image consumption as the main strategy of visual research (Kłeczek & Hajdas, 2024). Thus, visual sociology studies society through the analysis of visual products and sees visual information as sociological data and social indicators.

The visual culture that permeates the contemporary atmosphere includes a variety of visual references, from films and videos to advertisements and photographs (Jove et al., 2022). This iconographic context not only takes into account optical aspects but also emphasises their tactile impact (Wigena et al., 2023). This helps us to better understand the visual practices that involve objects created by mass tourism (Fig. 4):

Figure 4. Visual practices that include objects created by mass tourism.
Source: Geography Asia (2018)

An important part of this is the exchange of images in digital space that reflect experiences, places and connections to tradition, the perspective of modernity against ancient ruins, and diverse perspectives on everyday life. In this way, these images become a means of exchange and community, recreating everyday life and normality in a contextualised way.

The emergence of digital technologies allows us to transfer direct experience from physical space to the Internet using various tools, such as laptops with webcams, new generation smartphones, Bluetooth technology and continuous connectivity via Wi-Fi or iPhone. The technological presence in the urban environment facilitates this process of transition between different spaces, creating synergies between them.

In a related study, Kowalik (2023) demonstrates that new technologies facilitate constant exchange and provide the ability to create, experiment and play with images easier than ever before compared to traditional visual devices. They are means of expression that facilitate the construction of visual narratives. By visiting a variety of websites such as Flickr, Picasaweb, or participating in popular social media such as Twitter and Facebook, one can observe everyday life.

In his study, Bendaş (2023) explains that it is a contemporary art form that can be described as a true "web ethnography" that reflects the atmosphere of social life and the need for communication, reflecting the "cultural spirit" of our time through symbolic "elements" and the creation of playful "clouds". It is indeed a game with photos and videos, a game with images as a form of experience, which, with the help of digital potential, emphasises the emphasis on the moment (Fig. 5):
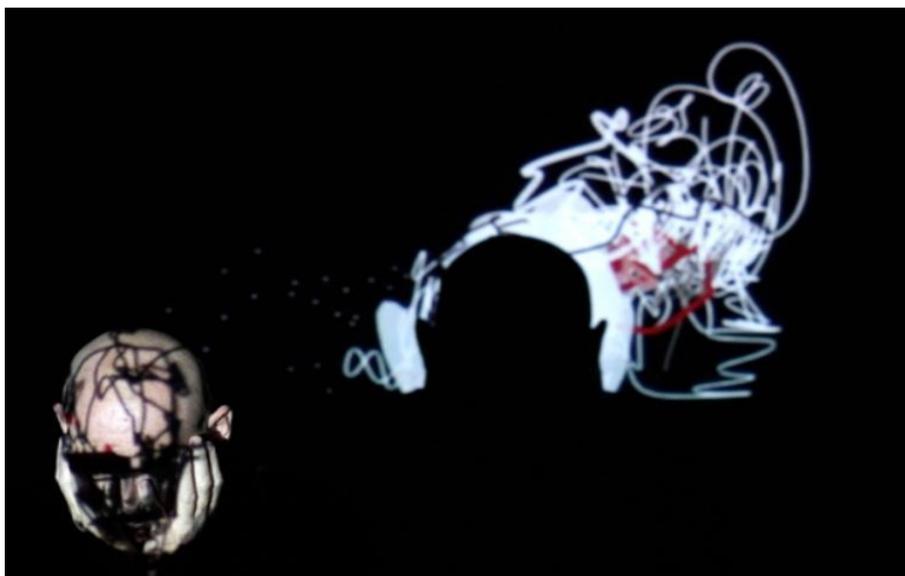

Figure 5. Kellie O'Dempsey integrating reality into the game.
Source: Kellie O'Dempsey (2015)

The integration of reality into play is one of the characteristics of contemporary experience that affects the human condition in new conditions. This leads to a new aesthetic that emphasises the everyday and the banal, through which connections, heritage and interaction are formed. For example, comments on photos on social media such as Facebook, where the image describes the daily life of an individual and encourages us to communicate with others. This allows the individual to express themselves and show their self (Pieniążek, 2023). Society and interaction are built on role gestures that are manifested in everyday interactions. A network built through images, where the self and the other are defined in the context of media interaction (Baca, 2023). This interactivity in cyberspace is a natural expression of human nature, and the "here and now" position builds the framework of our existence, where our identity develops in different worlds.

All digital technologies are involved in creating and maintaining the "integrated" show in the background that is a characteristic of today. We are all becoming active participants in the great spectacle of everyday life, and various services such as Flickr, Fotoscity, Daylymotion,

YouTube, Jomeo are clear examples of the changes in the virtual environment of the modern person (Farokhinejad, 2023). This "visual" need reflects the proliferation of representation in the postmodern world, where images are created and distributed through digital technologies.

Thus, a photo taken at a party, in social situations or in everyday life reflects a person's presence, which becomes a trace of their existence and life experiences when these images are posted in a "slideshow" on sharing sites (Brondino & Greaney, 2023). This opens up a variety of social forms that harness the potential of digital technologies as a means of training the internal processes of the mind.

In general, the image has always been important in every era, changing and adapting to the atmosphere of its time. The civilisation of the image has existed in various forms, and in the modern world it is once again attracted by digital technologies. We are in a post-Kodak era that simultaneously evokes the "analogue" nostalgia of vintage video photography, pulling out the magic of the Leika or Super 8 camera, icons that accompany modern fetishisation (Arnold, 2023). The paradox of digitalisation, which, according to Chifor (2023), strengthens the analogue style, is marked by its vigour and exposure. We can talk about the merging of styles and patchwork, which are characteristic of postmodernism. If we focus on the style of the era, as suggested by Zimmel, we should take into account that the digitisation of an image and its subsequent visualisation have a great impact on the social and cultural world, bringing a special sensitivity to the ways of communication and connecting people according to the Latin meaning of the word "communicare", which means "union". The digitisation of the image as a postmodern brand should be seen as both a medium and a cultural object that influences research in visual sociology and the relationship between image and society. The impact of a medium on an individual or society depends on the change in scale produced by each new technology and each expansion of our property.

Limitations of the study include the reliance on a specific philosophical perspective (Husserl's philosophy) and its application to the contemporary art world. This may limit the generalizability of the findings to other philosophical frameworks or artistic practices. Additionally, the study mainly focuses on the role of the image in postmodernity without considering other factors that may influence artistic creativity, such as political, economic, or social contexts.

Concrete examples of how the findings can be applied to the real world include the use of digital technologies to create and share visual narratives. Artists can leverage platforms such as social media and photo-sharing websites to reach a wider audience and engage in dialogue with viewers. This allows for the democratization of art and the exploration of new modes of artistic expression. Furthermore, understanding the role of the image as a "condition of possibility" for perceiving the world can encourage artists to reflect on the socio-cultural environment and create works that challenge conventional thinking. By embracing the visual dimension as a reflection of our time, artists can contribute to a deeper understanding of contemporary society and its complexities.

Conclusions

Thus, the interaction of tradition and modernity in contemporary art shows that the concepts of cultural heritage and innovation can exist together and continue to evolve. Artists use traditional cultural symbols and techniques, but reinterpret them in the context of the modern world, introducing new ideas and approaches. This synthesis helps to create new forms of expression and open up new ways of perceiving and understanding art. As a result, the image becomes a dynamic and living symbol of the union of the past, present and future, which opens up new opportunities for the discovery and development of cultural heritage in the modern world. So, we can draw several conclusions:

- First of all, the image in the modern world is a key feature of postmodernism and an important feature of our era;
- Visual culture and image are an important way of perception and communication in modern society;
- The study of visual aspects of sociology allows us to better understand the world and interactions between people;
- Digital technologies influence the creation, consumption and exchange of visual images, which reflects an important aspect of modern experience and communication;
- And finally, it is worth considering that the image, as an important element of cultural consciousness, combines the ability to search for new things, to embody ideas and to perceive the world around us.

For future research, it is important to further explore the influence of tradition and innovation on contemporary art, including in the context of globalisation. It would be useful to investigate how different cultures interact and influence each other through art, which can lead to new forms of aesthetic perception and understanding. It is also important to study the impact of technologies such as virtual reality, artificial intelligence, and others on the creation and perception of images in art. Studies of the role of art in shaping the cultural identity of modern society, as well as its impact on social and political processes, are also promising. Research in this area can expand the general understanding of the importance of art for the formation of a creative and open society.

Future research in the field of visual culture and fine arts can contribute to the further development of art and its understanding of the world through the prism of the image.

Some limitations of the study to consider could include the lack of a diverse range of artists and artworks examined, which may limit the generalizability of the findings. Additionally, the study may not fully capture the complex and multifaceted nature of tradition and modernity in contemporary art, as these concepts can be interpreted and manifested in a variety of ways.

In terms of future research, it would be valuable to explore how different cultural backgrounds and experiences shape artists' approaches to blending tradition and modernity in their work. Additionally, examining the impact of social, political, and economic factors on the production and reception of contemporary art could provide further insights into the dynamic relationship between tradition and innovation. Investigating how contemporary artists navigate the tension between preserving cultural heritage and pushing the boundaries of artistic expression could also shed light on the complexities of this artistic practice.

Overall, by delving deeper into these aspects, future research can offer a more nuanced understanding of how tradition and modernity intersect in contemporary art, and how this intersection shapes artistic production, reception, and broader societal discourses.

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Immersive technologies in the educational space

Імерсивні технології в освітньому просторі

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Abstract

The article reveals the importance of digital technologies (virtual reality, augmented reality, mixed reality with the use of artificial intelligence) in the educational space of educational institutions, identifies the types and considers the advantages of virtual reality, shows the important role of augmented reality in the educational space of educational institutions; the most well-known means of digital technologies in the educational space of educational institutions are analyzed. The use of immersive technologies is presented as a tool to involve all students in the educational process, where digital technologies are used to personalize learning, a new innovative educational environment is created, motivation is increased, and for understanding reality, providing information, ease of its perception, new opportunities are being searched for the future specialist; The

Анотація

У статті розкрито вагомість цифрових технологій (віртуальна реальність, доповнена реальність, змішана реальність із використанням штучного інтелекту) в освітньому просторі закладів освіти, виокремлено типи та розглянуто переваги віртуальної реальності, показано важливу роль доповненої реальності в освітньому просторі закладів освіти; проаналізовано найбільш відомі засоби цифрових технологій в освітньому просторі закладів освіти. Застосування імерсивних технологій представлено як інструмент залучення всіх студентів до освітнього процесу, де застосовуються цифрові технології персоніфікації навчання, відбувається створення нового інноваційного освітнього середовища, підвищення мотивації і для розуміння дійсності, надання інформації,

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advantages of using immersive technologies in professional education are highlighted, the importance of artificial intelligence for higher education is shown, directions for using a chatbot are suggested. In the conditions of the real educational process, we conducted a study on the formation of students with a high level of competence in the use of digital immersive technologies in the educational space of higher education institutions.

Keywords: virtual, augmented and mixed reality, educational activity, educational institutions, students of education, immersive technologies.

зручності її сприйняття, здійснюється пошук нових можливостей для майбутнього фахівця; Виокремлено переваги застосування у професійній освіті імерсивних технологій, показано значення штучного інтелекту для вищої освіти, запропоновано напрями використання чат-бота. В умовах реального навчально-виховного процесу нами було проведено дослідження щодо сформованості у студентів високого рівня компетентнісного застосування засобів цифрових імерсивних технологій в освітньому просторі закладів вищої освіти.

Ключові слова: віртуальна, доповнена та змішана реальність, освітня діяльність, заклади освіти, здобувачі освіти, імерсивні технології.

Introduction

The problem of modernization and improvement of professional training of specialists is quite acute in the modern information and digital society. Society is entering a new stage of development, therefore higher education institutions face the task of providing an opportunity for each individual to find his place in life, meet the challenges of the times, and fully realize himself as a qualified, modern, competitive specialist (Khmelnytska, 2023).

The implementation of virtual, augmented, and mixed reality systems in education is noted as an innovative learning of educational material, as a new approach to learning. These technologies can be used in different classes and their stages, as they have adaptability and flexibility. Visualization, interactive learning, technological design, construction, technical construction, and virtual travel can be realized thanks to immersive technologies. It is closely related to the intensive rethinking and flexible renewal of the higher education system. Substantial progress in the modern information society is based on the deep immersion in the digital information environment of higher education students and teachers (Khmil et al., 2023).

Therefore, an urgent scientific task arises, which consists of the development of methods and models of immersive technologies in the educational space based on the unification of all functions, procedures, and information bases into a single concentric information technology for the digital transformation of the academic activities of educational institutions.

Summarizing the theoretical and practical developments regarding immersive technologies in the educational space, we note that the issues of training pedagogical workers for the use of immersive technologies in the educational space are accompanied by the aggravation of contradictions between:

– the existing level of development of immersive technologies in the educational space and their insufficient practical implementation in the educational process of educational institutions;
– the need to harmonize the competence formation process regarding the use of immersive technologies in the educational space and the insufficiency of specially developed methods using these technologies;
– the expediency of using immersive technologies in the educational space and the need for coordinated actions in this matter by teachers, parents, social pedagogues, practical psychologists, and students;
– between the need to improve immersive technologies in the educational space with students and the inadequacy of methods for applying these technologies in the formation of students' information competence.

Considering the actuality, social significance, and insufficient development of the specified problem, the following topic of the article was chosen.

Research relies heavily on the accuracy and reliability of the data. In the framework of research work, the quality of data collection and analysis not only adds weight to the research but also contributes to the formation of sound

conclusions, which is the key to academic success.

The following digital data collection tools were useful in the study:

- Google Forms – a simple tool for creating surveys that allows you to collect data from respondents, create different types of questions, and collect answers in spreadsheets.
- SurveyMonkey is a modern survey tool that offers a wide range of customization options and analytical tools for analyzing the collected data.
- JSTOR, Google Scholar, and other academic search engines provide access to scholarly articles, books, and other academic resources that may be useful for literature review and theoretical data collection.
- Zotero or Mendeley – bibliography management programs that help organize research materials, store references, and format bibliographies and citations according to different citation styles.
- Microsoft Excel or Google Sheets – spreadsheets are useful for organizing and analyzing collected data when working with quantitative data.
- SPSS, R, or Python for more advanced data analysis, statistical analysis, and processing of volumes of data.

Literature review

Some foreign and domestic scientists studied certain aspects of virtual, augmented, and mixed reality, as well as their introduction into the educational process. Thus, L. Tarangul and S. Romaniuk (2022) presented the definition of AR technology, revealed its role, advantages, and limitations, and showed the experience of using (AR technology) – augmented reality technology in institutions of higher education; "we found that an effective tool for supporting the educational process in higher education institutions using AR technology is the HP Reveal platform, which is distinguished by its advantages that allow you to visualize educational information and improve teaching methods and the educational process in general".

D. Yefimov (2021) paid considerable attention to the issue of research devoted to augmented reality technology, which allowed the scientist to analyze AR technology, and formulate its functions and purposes. A. Torianyk (2019) considered the disadvantages and advantages of

virtual reality technology in education and also proved that virtual programs in educational institutions cannot completely replace traditional teaching, but when studying the most complex topics of various subjects, they can be effectively used.

V. Kovalenko, M. Marienko, and A. Sukhikh (2021) in the system of general secondary education in the context of blended learning considered the use of virtual and augmented reality and identified effective applications that can significantly increase the effectiveness of the educational process. The same problem was dealt with by Yu. Matvienko (2021), analyzed and identified the ways of using the most common applications in the educational space, implemented with AR technology, in the educational process, as well as V. Osadchyi, N. Valko, L. Kuzmich (2021), proved that the process of learning educational space learners improves the use of augmented reality technology, helps in organizing group and teamwork, increases student motivation, and also promotes cooperation.

N. Khmil, T. Halytska-Didukh, Q. Wang (2023) in the educational process of educational institutions made an analysis of opportunities and highlighted the prospects of using virtual and augmented reality technologies; characterized these technologies, identified their advantages in education; analyzed the most common applications based on augmented and virtual reality technologies, which should be used in higher education institutions to promote the effectiveness of the educational process. The stages of introducing virtual and augmented reality technologies into the educational process of higher education institutions are proposed; the advantages of using virtual and augmented reality, and their technical support for implementation in the educational process are shown and analyzed. Ways of using virtual and augmented reality technologies in secondary and higher education institutions have also been developed by V. Klymniuk (2018). An analysis of the current state of virtual and augmented reality was carried out; the main directions of the influence of virtual and augmented reality on the methodology of higher education are identified, and the ways of implementing elements of virtual and augmented reality in multimedia educational complexes are shown.

Scientists, O. Litorovych, and O. Karyi (2020) showed the possibilities and outlined the ways of using virtual, augmented, and mixed reality for

personnel training; offered different types of virtual reality systems; revealed the expediency of using virtual, mixed, and augmented reality technologies as methods of active learning in higher education institutions; disadvantages and advantages of using the specified technologies are shown; examples of staff training using mixed reality are described. O. Khmelnytska (2023) revealed the meaning of the concept of "immersive technologies", and showed the problems and advantages of building a virtual educational space and its practical application in the professional education of specialists. The content of immersive technologies is revealed: technologies of augmented, virtual, and mixed reality. Peculiarities of interaction with the outside world are highlighted: "Virtual reality involves the construction of an artificial world and simulation of real processes in it; augmented reality involves adding elements of the virtual world to reality and creating auxiliary objects in the real world; mixed, in turn, combines the real and virtual worlds, their combination for effective interaction".

The purpose of the study is to consider the content and prove the necessity of digital technologies in the educational space of the university, such as virtual reality, augmented reality, and mixed reality with the use of artificial intelligence, to ensure in practice the high effectiveness of the educational process, which is necessary for the future professional activity of students and to form students have a high level of competence in the use of digital immersive technologies in the educational space of the university.

The research methodology is based on the dialectical method, its application through the prism of the dialectics of technology, and the interaction of the student of higher education to reveal the specifics of virtual, augmented, and mixed realities.

The scientific novelty consists in distinguishing the key categories of immersive information technologies, in particular, the concepts: "mixed reality", "virtual reality", and "augmented reality", the illegal use of which by students of higher education, as synonyms, unreasonably leads to the incorrect use of specific vocabulary.

Methodology

The research used: general scientific research methods – theoretical (analysis, abstraction, synthesis, generalization, deduction, induction, classification, explanation, idealization, ascent from abstract to concrete, formalization, imaginary experiment, axiomatic method, as well as systemic, functional, concrete sociological: experiment, survey, description, in addition to the above-mentioned general scientific methods, they include: synectics, testing, monitoring preferences, so the selection was based on the research objective and data availability.

Ethical compliance was of critical importance to us during data collection. This included:

– ensuring confidentiality;
– obtaining the informed consent of the participants;
– protection of personal data.

In the conditions of a real educational process, we conducted a study, the purpose of which is to consider the content and prove the need for digital technologies in the educational space of the university, such as virtual reality, augmented reality, and mixed reality with the use of artificial intelligence, to ensure in practice the high effectiveness of the educational process, which is necessary for the future professional activity of students and to form among students a high level of competence in the use of digital immersive technologies in the educational space of the university.

It can be asserted with a probability of 95% that as a result of the formative experiment, there were positive changes in the levels of formation of competence in the use of digital immersive technologies in the educational space of the university in the experimental group.

The type of research conducted is quantitative, and the approach to it is experimental.

The implementation of the pedagogical experiment was carried out in three stages: preparatory, main, and final.

At the preparatory stage, the purpose and tasks of the research were determined, the experimental plan was developed, methods of measurement and processing of results were selected, control and experimental groups were selected, and their homogeneity was checked.

At the main stage, an experiment was conducted.

At the final stage, the results of the experiment were analyzed, their reliability was confirmed, and conclusions were drawn about the pedagogical effect of the experiment.

The reliability and validity of the obtained results, and the objectivity of their assessment were ensured by the methodological soundness of the initial positions and the qualitative mechanism for evaluating the quality under study, the use of a complex of complementary research methods, and the involvement of a group of respondents from a higher educational institution in the analysis of its results.

To assess the homogeneity of experimental and control data, statistical processing was performed using MS Excel and SPSS (Statistical Package for Social Science).

The following digital data collection tools were useful in the study: Google Forms; SurveyMonkey; JSTOR; Zotero or Mendeley; Microsoft Excel or Google Sheets; SPSS, R or Python.

When determining the sample of subjects, the general specificity of the research subject was taken into account. The total sample size is 130 subjects. When forming the sample, the criteria of meaningfulness, representativeness, and equivalence were taken into account. The sample was formed by random selection using the technical procedure for calculating the selection step.

The results of the experimental study confirmed the applicability, optimality, and effectiveness of the proposed pedagogical conditions for the formation of the environmental culture of an ecologist in the process of professional training.

Results and discussion

1. **The role of digital technologies (virtual reality, augmented reality, mixed reality with the use of artificial intelligence) in the educational space of the university.**

In recent years, from another new trend to innovative technologies, virtual computer reality has overcome an innovative path: now in the field of education, it is possible to create sounds and other sensations, realistic images that can transport a student of higher education to a fictional exciting world. Digital technologies in the educational space of the university, such as virtual reality, augmented reality, and mixed reality with the use of artificial intelligence, in turn, strengthen the confidence that innovative technologies will greatly influence the future and bring an element of virtuality to the surrounding reality.

It is the mixed reality that provides the projection of three-dimensional virtual objects that combine digital elements and the real world, thanks to which students of higher education can interact with virtual and physical objects and the environment at the same time, as well as with the help of the latest perception and visualization technologies, manipulate them.

Mixed reality combines virtual and augmented reality, that is, it superimposes non-existent virtual objects on the surrounding world.

The Google translator function is a typical example of mixed reality, which translates text from one language to another using a smartphone in real-time, choosing a similar font and replacing it.

In 1994, the term "mixed reality" was proposed by P. Milgram and F. Kishino (1994) and described the "Reality-Virtuality Continuum" – the space between virtuality and reality, between which mixed reality and augmented reality are located – closer to augmented virtuality, reality, virtuality. C. Bavor (2017) proposes to combine in one term all those technologies that P. Milgram and F. Kishino denote as mixed reality – immersive information technologies. But the term MR eventually gave way to the more innovative "augmented reality", which characterizes digital information superimposed on the real and physical world, and "virtual reality", which is primarily used to describe fully digital environments.

Mixed reality usually requires special equipment: glasses or helmets and is important and interesting for the educational field.

Virtual images in mixed reality are brought into the physical space and placed and visualized according to the objects of reality so that they are perceived as real. A student of higher education continues to interact with the physical world, where virtual objects are also present, which sometimes cannot be distinguished from real ones.

2. **Types and benefits of virtual reality.**

A highly developed form of computer simulation, this is virtual reality, which allows the user to immerse himself in the artificial world and act directly in it with the help of special sensory devices that connect him with audiovisual effects. At the same time, the motor, auditory, and visual sensations of the student of

higher education are replaced by their imitation, which is generated by a computer. Therefore, the artificial world that exists "in the computer" can be considered virtual reality. At the same time, object models that function in the middle of this innovative world can interact with a person or a group of people, and not only with each other.

Let's distinguish the types of virtual reality:

- computer modeling and simulation;
- network imaginary reality;
- cyberspace hardware.

There are many large-scale installations in the modern world, which are used in various fields of technology and science, dealing not only with the solution of fundamental tasks but also with the improvement of scientific disciplines of higher education.

Let's find out the main feature of VR models – it is an illusion created for the user and ensures the presence of a student of higher education in a simulated computer environment, which is called remote presence. The feeling of remote presence depends most on how convincingly the VR model reacts when interacting with the user of the educational space and how realistically the movements are reproduced. In particular, the model can adequately respond to head rotation and eye movement with appropriate technical support.

Let's highlight the main advantages of using virtual reality in education.

Clearness. Virtual reality, using 3D graphics, makes it possible to show chemical processes in detail, down to the atomic level, and to show how nuclear fission occurs before a nuclear explosion inside the atom itself.

Involvement Virtual reality allows you to influence the course of an experiment, change scenarios, or solve a problem in an accessible and game-like form for understanding. By conducting a virtual class, you can see the world of the past through the eyes of a historical character or go on a journey through the human body in a microcapsule.

Virtual classes. One of the main features of virtual reality for a student of higher education is the feeling of his presence in the drawn world, a first-person view. It is this approach that makes it possible to conduct classes entirely in virtual reality.

Security. It is possible to immerse the viewer without the slightest threat to life in any environment of any important circumstances: control of a space shuttle, a high-speed train, an operation on a human heart, and safety techniques during a fire.

Focusing. The virtual world surrounds the student of higher education at 360 degrees, from all sides, which allows him to focus entirely on specific material and not pay attention to external stimuli.

VR formats in education: in semantic learning, the transfer of empirical material through VR – full-time education; with the effect of the presence of social interaction, group classes – distance education; the opportunity to interact with real students and the teacher, to see what is happening, to be remotely in the classroom – mixed education; any of the developed educational courses can be adapted for independent study – self-education.

At the current stage of the educational process, virtual reality becomes a necessary form that significantly increases the effectiveness of the educational process for obtaining quality education. During the development, improvement, and implementation of virtual reality elements in multimedia educational complexes, it is necessary to take into account the professional level of developers, the capabilities of the higher education institution, the time allocated for implementation in the virtual reality educational process (Klymniuk, 2018).

In education, the use of virtual reality (VR) systems represents a new approach to the assimilation and transfer of scientific-methodical knowledge. Thanks to VR technologies, users can visit any point on the globe, build volumetric diagrams, visit unique experimental laboratories, conduct virtual chemical experiments, observe and actively participate in historical events, go on virtual space trips, explore different countries and cities, interact in a scientific environment with other users: directly participate in scientific research and observe experiments (Kovalenko et al., 2021).

Nowadays, there are a significant number of virtual reality applications, which are constantly increasing. More than 300 companies operate on the European market, which has been implementing their technologies in the education sector for a long time (in particular: Microsoft, Samsung, Oculus, Sony, HTC, etc.), offer schools and higher education institutions services

for the development of unique educational programs for successful use in the educational process.

3. The role of augmented reality in the educational space of the university.

Augmented reality (AR) is a technology that makes it possible to add digital data to the physical world in real time with the help of such computer devices as tablets, smartphones, and AR glasses. AR, using the environment, only adds virtual elements to such an environment (sounds, response to touches, graphics), which differs from virtual reality (VR), which immerses the user completely in a virtual environment (Chaban & Pashkevich, 2022). Let's highlight the key advantages of augmented reality technology in the educational process (Korkishko, 2021):

- increases the level of concentration of students of higher education and their interest in repeating and studying new material;
- allows you to conduct experiments and your own innovative research;
- provides an opportunity, compared to the usual static illustrations in maps, textbooks, etc., for a detailed examination of processes and objects;
- provides an opportunity to carry out dangerous and complex observations and experiments without harming the health of students of higher education.

However, some aspects must be taken into account when working with educational technologies based on AR. Including (Tymchyna & Tymchyna, 2020):

- dependence on the availability of supported AR applications on smartphones for all students;
- insufficient professional level of teacher training;
- problems with content mobility on different devices and platforms (Khmil et al., 2023).

4. The most famous means of digital technologies in the educational space of the university: are virtual reality, augmented reality, and mixed reality with the use of artificial intelligence.

Teachers of higher education institutions, applying professionalism, imagination, and creativity, to increase the motivation of students to study, try to use the most modern means, methods, and technologies, focusing on their popularity among students of higher education.

Let's name the most famous means of digital technologies in the educational space of the university, such as virtual reality, augmented reality, and mixed reality with the use of artificial intelligence:

Labster – 3D project, which is interactive, was developed in the USA in cooperation with leading institutions of higher education – Harvard, Stanford, and Massachusetts Institute of Technology. The peculiarity of the Labster – the 3D project is that those who have obtained a higher degree can conduct experiments remotely in scientific laboratories while gaining access to the full range of laboratory equipment;

Lecture VR – virtual reality platforms (HTC Vive, Oculus Rift, PlayStation VR) provide an opportunity to watch a series of lectures by eminent scientists with the support of visual visualization, which are available for group sessions, supplementing classes, and for individual viewing;

Google Expeditions Pioneer Program – an innovative program that allows students of higher education to go on virtual excursions to inaccessible, exotic places on our planet. More than 100 such excursions are provided by the platform and with the help of Google Cardboard;

Human Body (Male) Educational VR 3D – the application presents the main systems of the human body, and human organs and allows you to enlarge and view the organs of the human body with preset angles. Most 3D scenes include captions, entertaining animated quizzes, embedded animations and narration, and other visuals (Khmil et al., 2023);

Assemblr Studio is an application that, from categories grouped for the convenience of the user, allows you to create an authentic model in augmented reality; view ready-made objects, namely: science, education, nature, technology, cartoon animation, etc.;

ARLOOPA AR application is available in 6 languages and Contains Assemblr Studio cases with a set of ready-made and categorized objects for use. After downloading the application, you need to open the case of one of the required categories and place the selected AR object on the screen (Rohman et al., 2024);

AR Solar System is an application designed for the study of the Solar System and provides a combination of informatics and astronomy;

AR 3D Animals – AR-application provides integration of informatics and biology, natural

sciences contain cases of animated 40 species of animals – 3D-models;

TryCam AR – Cut Paste AR, Virtual Try-On – an application that provides the transformation of an ordinary image from a smartphone into an object of augmented reality. Students create models in 2D format independently, which provides an opportunity for the development of creativity, imagination, and creation (Bondar, 2020).

Virtual education takes place in a virtual educational space, its existence is impossible without the communication of participants in the educational process. Educational virtual systems represent the result and process of interaction between students of higher education and teachers, they cannot completely replace traditional teaching in institutions of higher education, because they only simulate objects in the digital space and reality. However, their constant use in the educational space is appropriate when studying the most complex topics and is necessary for in-depth assimilation of the material by students and provides additional educational opportunities (Babiuk, 2022).

It is important to note the technical aspect of higher education students' access to virtual reality. A budget version of Esperanza Glasses 3D VR – virtual reality glasses is available to students during their studies. With the help of virtual reality glasses, it is possible to immerse yourself in the virtual world of the scientific process only when using a smartphone (Khmil et al., 2023).

5. Application of immersive technologies.

As a tool for involving all students in the educational process, digital technologies are used to personalize learning, create a new educational environment, increase motivation, and search for new opportunities to understand reality, provide information, and facilitate its perception. In modern education, an actual trend is the use of immersive technologies, which involve active interaction of the individual with information, with the educational space, and the creation of informational, flexible environments. Immersive technologies make it possible to learn in an "artificial" virtual space, to gain practical knowledge in the professional field, blur the boundaries between the virtual and real world, and provide the opportunity to partially or fully immerse yourself in information (Khmelnytska, 2023).

Immersive technology represents, on the one hand, the integration of the virtual world with the physical environment, which allows the student of higher education to naturally interact with mixed reality, which embodies two types of reality: virtual (VR) and augmented (AR). On the other hand, immersive technologies are considered devices and methods that, with the help of sensory stimuli, create the effect of identification with immersive media, which makes it possible to use displays and simulations to immerse students in virtual worlds that may not always be available in real life (Sandoval-Henríquez, 2022).

We consider immersive technologies through the possibility of implementing a new approach to presenting and learning new material. Therefore, during training, we single out technologies of augmented, virtual, and mixed reality, which have their own peculiarities in application, even though they have a common goal – to replace dummies, tables, and diagrams.

Let's highlight the advantages of using immersive technologies in professional education:

- safety and accessibility in use;
- multimedia and interactive content of the educational process;
- the student's ability to concentrate on what is important;
- complete immersion in the immersive educational space of the student of higher education;
- the ability to work in a team;
- application of partner technologies;
- providing student motivation through game elements of learning;
- the creation of educational own developments;
- prognostic analysis of the research problem;
- provision of an individual educational trajectory for the student of higher education;
- formation of information, communication, and digital competencies in higher education students;
- automated verification and monitoring of a specific student of higher education or a group of students on the performance of practical tasks, etc.

In the educational field, the use of immersive technologies involves the construction of a structured scenario with a detailed system of tasks, rules, and strategies, i.e. an educational

simulation, which allows the student to apply professional skills and contributes to the formation of specific professional competencies in the student of higher education in further professional activities (Khmelnytska, 2023).

6. The importance of artificial intelligence for higher education. Directions for using the chatbot.

Due to the rapid development of artificial intelligence, there is an opportunity to increase or improve the effectiveness of using augmented, virtual, and mixed reality. Artificial intelligence, based on large data sets, makes it possible to plan an employee's training course automatically and create an individual education trajectory for each student. Chatbots are an example of the use of artificial intelligence in the educational process. A chatbot is an information communication technology, a program, or a virtual interlocutor that simulates the behavior of a student during communication with several or one interlocutor. Chatbots are created based on such applications as Skype, Telegram, Viber, and FB Messenger (Raskopa, (s.f)).

Today, the education space uses chatbots to communicate with teachers, students, employers, and more. The application of such innovative technology for the training of a future specialist does not present significant difficulties. A chatbot is necessary during the training of students to master new knowledge and to automate their acquisition in the format of interactive interaction. This approach to education enables every student to have round-the-clock access to a virtual mentor, to consolidate the material they have passed and pass tests, and to request the necessary information right at the workplace. At the same time, the load on the educational department is minimal.

Let's consider the directions for using a chatbot in student education, depending on the chosen goals:

1. corporate culture training. Chatbot conducts interviews, sends files;
2. on-the-job training:

– creation of a chatbot platform, which makes it possible to independently adjust the educational process to the goals of employees and the student's own goals;
– creation of a program with a chatbot, which makes it possible to detect gaps in the

student's experience and knowledge and to offer such topics to the student in which he lacks knowledge.

Due to the fact that in the current state, chatbots cannot completely replace a person, they work together with a mentor. When the bot cannot answer the student's reply, the operator is included in the dialogue. The dialog system creates new options for answers by analyzing the operator's answer and the student's reply. The advantage of such an algorithm is that it is controlled by a mentor.

So, we see that increasing the availability of adaptive-interactive systems and reducing their cost, in particular those that can be used in the educational process of a higher school, stimulates their use in an increasingly large educational format around the world. Modern digital technologies in practice are highly effective in the innovative educational process through independence, easy search for information, increased attention and concentration of students, simultaneous safety of the student's educational activities, and acquisition of practical skills (Litorovych & Karyi, 2020).

7. An experimental study of the levels of formation of competence in the use of digital immersive technologies in the educational space of the university.

The data obtained from the survey of the EC Eurostat statistical agency are interesting. In particular, access to the Internet depends on the level of education and age of users:

– 85% of young people use the Internet between the ages of 16 and 24;
– only 13% of elderly Europeans access the Internet.

Inequality of access to the Internet directly depends on education:

– those who graduated from higher school and continue to study – 62.2% of respondents go online;
– those who graduated from higher school and stopped their education – 43% of respondents go online;
– those who did not finish school – 20% of respondents go online.

This is because students have a desire to use the World Wide Web, and there are more opportunities, as well as the intellectual potential

of the student, his education, knowledge of foreign languages, and the social and cultural level of parents and teachers.

In the conditions of a real educational process, we conducted a study, the purpose of which is to consider the content and prove the need for digital technologies in the educational space of the university, such as virtual reality, augmented reality, and mixed reality with the use of artificial intelligence, to ensure in practice the high effectiveness of the educational process, which is necessary for the future professional activity of students and to form among students a high level of competence in the use of digital immersive technologies in the educational space of the university.

The research methodology was based on the dialectical method, its application through the prism of the dialectics of technology, and the interaction of the student of higher education to reveal the specifics of virtual, augmented, and mixed realities.

Scientific novelty can be seen in the demarcation of key categories of immersive information technologies, in particular the concepts: of "mixed reality", "virtual reality", and "augmented reality", the illegal use of which by students of higher education, as synonyms, unreasonably leads to the incorrect use of specific vocabulary.

The research used: general scientific research methods – theoretical (analysis, abstraction, synthesis, generalization, deduction, induction, classification, explanation, idealization, ascent from abstract to concrete, formalization, imaginary experiment, axiomatic method, as well as systemic, functional, concrete sociological); empirical: experiment, observation, survey, description, to process the results of observations and experiments.

In addition to the aforementioned general scientific research methods, special methods were also used. These include synectics, the Monte Carlo method, and monitoring. Each method had its own limitations and advantages, so the choice was based on the research task and data availability.

Ethical compliance was of critical importance to us during data collection. This included:

− ensuring confidentiality;
− obtaining the informed consent of the participants;
− protection of personal data.

The experiment covered 130 students of higher education. Homogeneous control and experimental groups are grouped together. At the initial stage of the research, we conducted a survey among students of higher education regarding their use of immersive technologies during the educational process. The following survey questions were proposed:

1. Do you understand the meaning of the terms: "immersive technologies", "mixed reality", "virtual reality", and "augmented reality"?
2. What are the differences between these technologies?
3. Do you use immersive technologies in your practice?
4. What are the means of digital technologies, their types and what are the advantages of virtual reality?
5. Do you use artificial intelligence and chatbots in practice?

During the ascertaining initial stage of the research, we received the following data.

Do you understand the meaning of the terms: "immersive technologies, "mixed reality", "virtual reality", and "augmented reality"?

Yes, I understand – 65% of respondents answered, I don't quite understand – 35% of respondents.
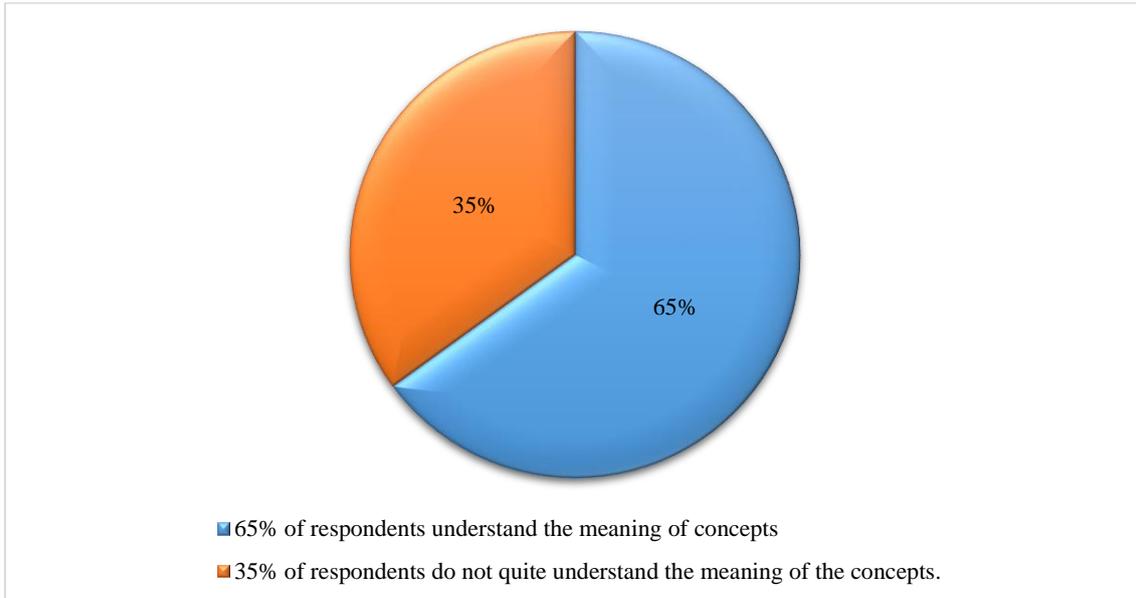
Fig. 1. Do you understand the meaning of the terms: "immersive technologies", "mixed reality", "virtual reality", and "augmented reality"?

But when answering the question – "How do these technologies differ from each other?", we observe the following results: only 18% of respondents gave correct answers, and 82% of respondents gave incorrect answers.
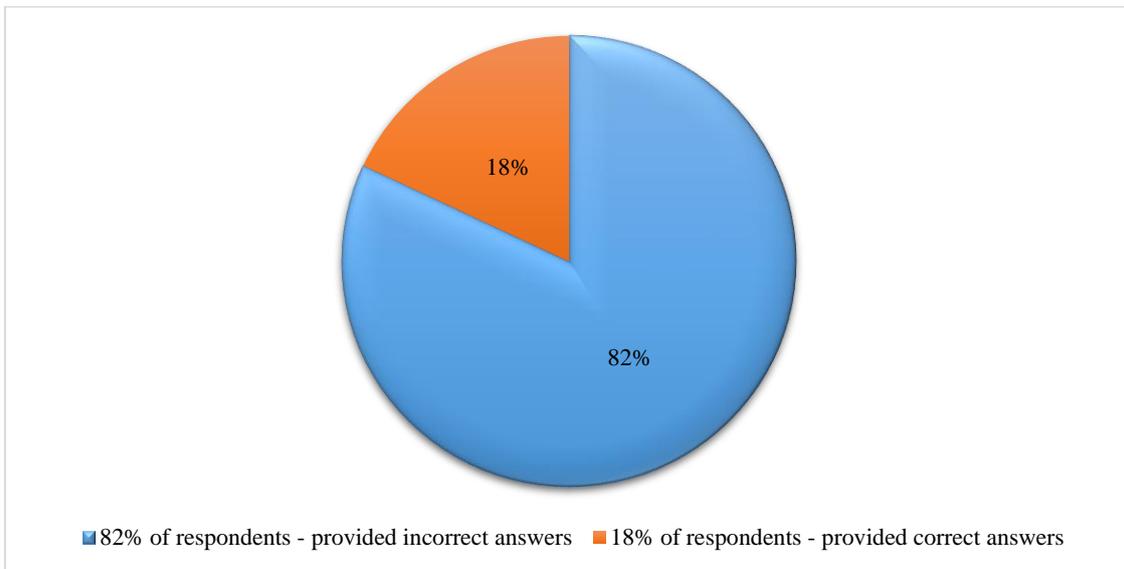

Fig. 2. How do these technologies differ from each other?

Answers to the question "What are the means of digital technologies, their types and what are the advantages of virtual reality?" again we were not pleased. We received comprehensive answers from 17% of respondents, and 83% of respondents gave superficial, incomplete answers.
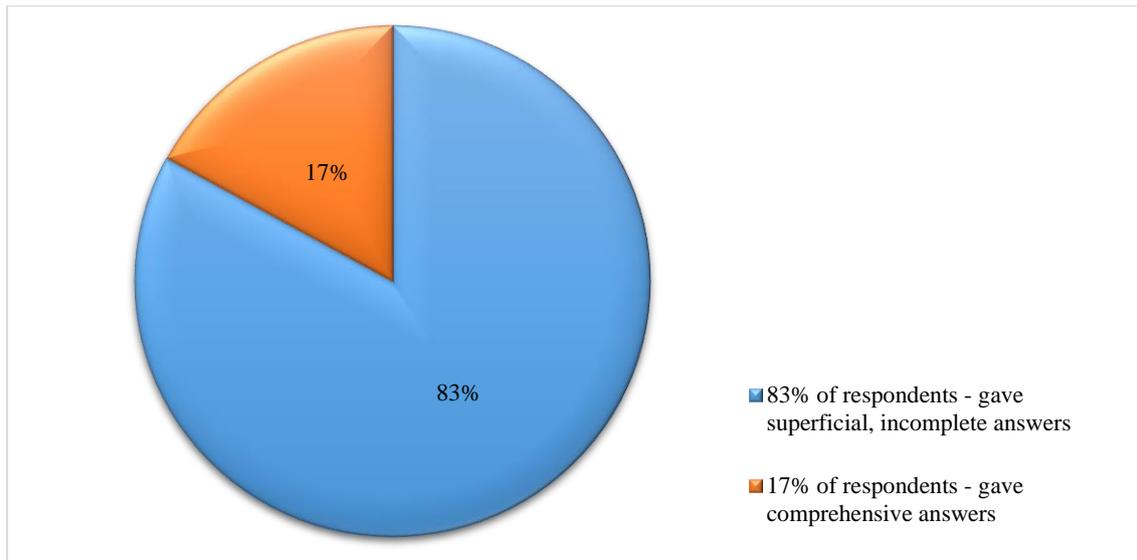
Fig. 3. What are the digital technologies, their types and what are the advantages of virtual reality?

The question "Do you use artificial intelligence and chatbots in practice?" showed that a small number of respondents use artificial intelligence and chatbots in practice. In particular, 17% of respondents gave affirmative answers, and 83% of respondents denied the use of artificial intelligence and chatbots in practice.
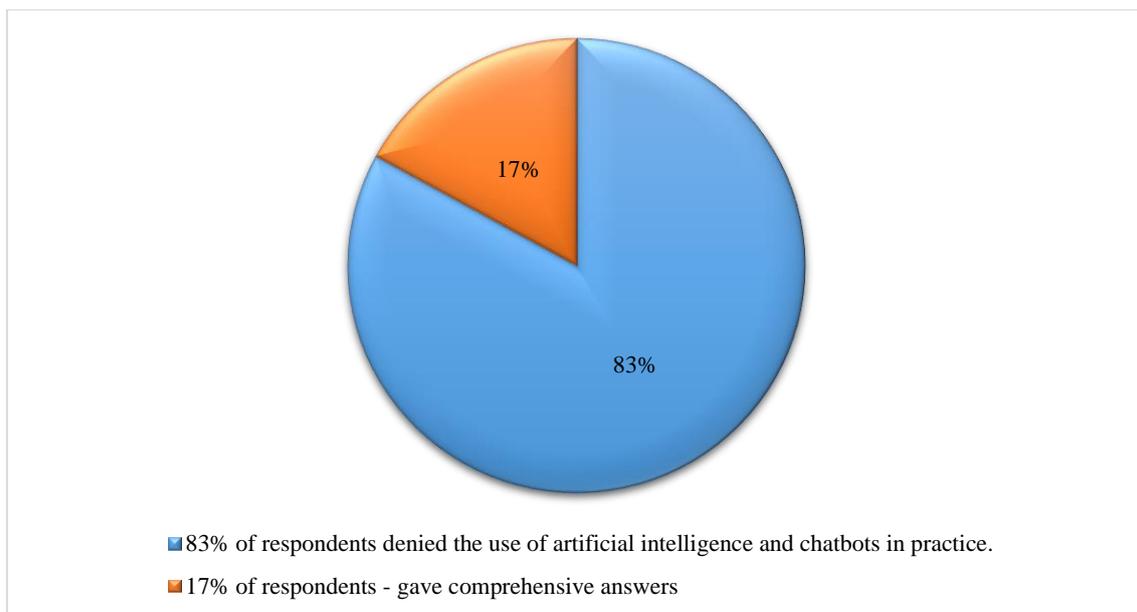
Fig. 4. Do you use artificial intelligence and chatbots in practice?

Among the students of higher education in the control and experimental groups, the results of the survey regarding the understanding and use of immersive technologies during the educational process impressed us with the low level of knowledge and application of all the positions proposed in the questionnaire.

Therefore, every week, we held classes and meetings in the mentoring studio for the students of the experimental group.

The main purpose of the classes was to acquaint the students of the experimental group with:

– the role of digital technologies (virtual reality, augmented reality, mixed reality with the use of artificial intelligence) in the educational space of the university and the human workplace;
– disclosure of types (computer modeling and simulation; network virtual reality; cyberspace hardware) and advantages of virtual reality;

- the role of augmented reality in the educational space of the university.
- practical application in the educational process of the university of well-known means of digital technologies: virtual reality, augmented reality, and mixed reality with the use of artificial intelligence;
- highlighting the advantages of using immersive technologies in professional education;
- as a tool to involve all students in the educational process of applying digital technologies to personalize learning, create a new educational environment, increase motivation and understand reality, provide information, and facilitate its perception, the search for new opportunities for future specialists was carried out;
- clarifying the main areas of using a chatbot;
- proving the importance of artificial intelligence for higher education and the further professional career of the student.

Students were offered immersive technologies in the educational space of the university, as well as new or updated programs and digital applications. Students learned to use virtual tours and virtual laboratories in the educational space of the university. In the class, they received comprehensive and detailed information about the possibilities of using immersive technologies and virtual laboratories in the educational process. To facilitate the assimilation of new educational material, they got acquainted with various mobile applications and online services. The work continued in practical, seminar classes and during group work. After a set of such events, students had the opportunity to apply the acquired competencies in practice. Respondents actively used digital technologies (virtual reality, augmented reality, mixed reality with the use of

artificial intelligence) in the educational space of the university and at the workplace, and used modern mobile applications and virtual laboratories to diversify practical tasks.

A repeat survey among students (formative stage of the experiment) was conducted after the implementation of the measures described above. It was conducted to find out specific digital educational tools that improve students' perception of educational material.

We again surveyed the final stage of the study (the formative stage of the experiment).

Its result testifies to the effectiveness of the experimental work of mastering the content and proving the necessity of digital technologies in the educational space of the university, such as virtual reality, augmented reality, and mixed reality with the use of artificial intelligence, to ensure in practice the high effectiveness of the educational process, which is necessary for the future professional student activities.

We are talking about the formation of students' competent use of digital immersive technologies in the educational space of the university: virtual reality, augmented reality, and mixed reality with the use of artificial intelligence and a chatbot.

We provide data on the general levels of formation of competence in students' use of digital immersive technologies in the educational space of the university at the final stage of research and experimental work.

In EG, 20.3% of students with a worldview and functional level of formation of competent application of digital immersive technologies in the educational space of the university were recorded (in CG – 11.7%).

Table 1.
Worldview and functional level of formation of the competent application of digital immersive technologies in the educational space of the university

Groups	Students
EG	20.3%
CG	11.7%

It was recorded that 73.2% of EG students showed an optional and productive level of formation of competence in the use of digital

immersive technologies in the educational space of the university (23.5% in CG).

Table 2.

Optional-productive level of formation of competence in the use of digital immersive technologies in the educational space of the university

Groups	Students
EG	73,2%
CG	23.5%

The reproductive-normative level of formation of competence in the use of digital immersive technologies in the educational space of the university was found in 11.5% of EG students (in CG – 62.7%).

Table 3.

Reproductive-normative level of formation of competence application of digital immersive technologies in the educational space of the university

Groups	Students
EG	11,5%
CG	62.7%

Quantitative data on the levels of formation of competence in the use of digital immersive technologies in the educational space of the university at the ascertainment and final stages of research and experimental work increased significantly in EG, while in CG they did not change enough.

Yes, the number of EG respondents increased:

– by 7.8% with the worldview and functional level of formation of competence in the use of digital immersive technologies in the educational space of the university (in the CG there was an increase of 1.9%);

– by 51% – with the optional productive level of formation of competence in the use of digital immersive technologies in the educational space of the university (in CG the increase occurred by 5.9%);

– by 56.7% – with the reproductive-normative level of formation of competence in the use of digital immersive technologies in the educational space of the university in EG (in CG the increase occurred by 7.8%).

Table. 4.

Quantitative data on the levels of formation of competence in the application of digital immersive technologies in the educational space of the university at the ascertaining and final (formative) stages of research and experimental work

	Groups	
	CG	EG
Worldview and functional level of formation of competence in the use of digital immersive technologies in the educational space of the university	1,9%	7,8%
Optional-productive level of formation of competence in the use of digital immersive technologies in the educational space of the university	5,9%	51%
The reproductive-normative level of the formation of competence in the use of digital immersive technologies in the educational space of the university	7,8%	56,7%

So, it can be asserted with a probability of 95% that as a result of the formative experiment, there were positive changes in the levels of formation of competence in the use of digital immersive technologies in the educational space of the university in the experimental group.

Conclusions

The role of digital technologies (virtual reality, augmented reality, mixed reality with the use of artificial intelligence) in the educational space of the university is shown, and types are distinguished (computer modeling and simulation; network virtual reality; cyberspace hardware) and the advantages of virtual reality

are considered, the important the role of augmented reality in the educational space of the university. the most well-known means of digital technologies in the educational space of the university are analyzed: virtual reality, augmented reality, and mixed reality with the use of artificial intelligence.

The use of immersive technologies is presented as a tool for involving all students in the educational process, where digital technologies are used to personalize learning, a new innovative educational environment is created, motivation is increased and for understanding reality, providing information, ease of its perception, new opportunities are being searched for a future specialist; The advantages of using immersive technologies in professional education are highlighted, the importance of artificial intelligence for higher education is shown, directions for using a chatbot are suggested.

In the conditions of a real educational process, we conducted a study, the purpose of which is to consider the content and prove the need for digital technologies in the educational space of the university, such as virtual reality, augmented reality, and mixed reality with the use of artificial intelligence, to ensure in practice the high effectiveness of the educational process, which is necessary for the future professional activity of students and to form among students a high level of competence in the use of digital immersive technologies in the educational space of the university.

It can be asserted with a probability of 95% that as a result of the formative experiment, there were positive changes in the levels of formation of competence in the use of digital immersive technologies in the educational space of the university in the experimental group.

Further research is needed to substantiate the ways of using artificial intelligence in the educational space of universities.

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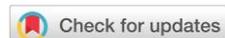
Challenges and opportunities in the creative productivity of scientists and the demographic composition of science

Виклики та можливості для творчої продуктивності науковців та демографічного складу науки

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Abstract

The article confidently explores the broadening of the demographic contingent of science. Since the end of the twentieth century, the problems of attracting the younger generation to science, studying international cooperation of scientists and migration patterns in science have become relevant issues. Also important are the issues of the influence of interdisciplinary education on obtaining breakthrough scientific results, determining the impact of the favorable scientific environment on the productive work of a scientist, the problems of inclusiveness of the scientific environment and the expansion of racial and ethnic representation in science. It is shown that although academic mobility of scientists is globally viewed as a process of internationalization of science, which contributes to the dissemination and exchange of knowledge and ideas, and the growth of scientists' productivity. However, given that in certain contexts mobility is associated with the loss of human resources in science, it should be viewed as a complex political problem of attracting and retaining scientists. This problem is exacerbated in times of military conflicts and socio-political crises. It is emphasized that despite the usefulness of scientists using the benefits of Open Science and participating in international research projects, attention should be paid to national and regional problems that require scientific support.

Keywords: Gender identity in science, mentors in science, people with disabilities in science, science of science, science-sociological aspects.

Анотація

В статті розглядається розширення демографічної контингентності науки. З кінця ХХст. актуальними питаннями стають проблеми залучення молодого покоління до науки, вивчення міжнародної співпраці вчених та міграційних потоків в науці. Також важливими стають питання впливу міждисциплінарної освіти на отримання проривних наукових результатів, визначення впливу сприятливості наукового середовища для продуктивної праці вченого, проблем інклюзивності наукового середовища та розширення в науці расового та етнічного представництва. Показано, що хоча академічна мобільність вчених в глобальному плані розглядається як процес інтернаціоналізації науки, що сприяє поширенню та обміну знаннями та ідеями, росту продуктивності вчених. Проте зважаючи на те, що в певних контекстах мобільність пов'язана з втратою кадрового потенціалу науки, її слід розглядати як складну політичну проблему залучення та утримання науковців. Загострюється ця проблема в періоди воєнних конфліктів та соціально-політичних криз. Підкреслюється, що незважаючи на корисність використання вченими переваг Відкритої науки, участі у міжнародних наукових проєктах, слід приділяти увагу національним, регіональним проблем, які потребують наукового забезпечення.

Ключові слова: Гендерна ідентичність в науці, наставництво в науці, люди з обмеженими можливостями в науці, наукознавство, соціологічні аспекти науки.

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Introduction

In the modern world, scientific knowledge and innovative technologies are the basis for competitive advantages in social and economic development. Intensifying activities in the field of science is a top priority for societies seeking to ensure a comfortable life for current and future generations. In the complex and multifaceted system of science, the human element is clearly the most important factor. Attracting talented young people, increasing labor efficiency, and creating a favorable environment for creativity are urgent issues that demand immediate attention.

Reflection on the productivity of scientific activity is typically carried out using methods from science studies, philosophy, sociology, and the history of science. Demography methodology is also utilized to study the productivity of scientists based on age and gender. Bibliometric indicators determine the productivity of a scientist, the effectiveness of research teams, and the impact of scientific journals. Although all these results were useful for understanding the functioning of science, their practical use for management purposes, especially without taking into account the context, turned out to conceal risks and harm the development of science. The intensification of globalization processes in science, the formation of networked forms of cooperation and communication among scientists, and the transformation of scientists' work due to the use of information and communication technologies have led to changes in the understanding of professional problems of scientists. Scientific cooperation and migration flows are recognized as factors that intensify scientific work and facilitate the exchange of ideas. Open Science concepts and practices are actively being developed and disseminated. Young people are being engaged in science through innovative forms, and citizen science projects are being utilized to promote inclusiveness and interaction with society. This expansion is attracting new subjects to scientific activity.

The purpose of this article is to analyze the transformation of the demographic contingent of science and its relation to promoting openness and inclusivity in scientific development. It specifically addresses the challenges of engaging young people in science, with a focus on Ukraine.

Literature Review

The most important works on the topic of this article are those by F. Znaniecki (1940), R. Merton (1968; 1984), and H. Zuckerman (1977). These works remain highly relevant today and clearly explain the essential features of scientists' professional activity, including the performance of relevant functions within the scientific team and strict adherence to the norms of scientific ethos.

Back in the 40s of the XX century C.W. Adams (1946) stated that scientists achieve remarkable results in their younger years. His study of 4204 scientists found that the median age for their most outstanding achievements was 43 years old. Furthermore, 9% of these achievements were obtained before the age of 30. Young people are the most productive in science. This is because many scientists move on to administrative work after gaining recognition, leaving them with less time for scientific research. The history of science is also marked by tragic fates, such as E. Galois who created the theory of groups at the age of 20. If he had not died a year later, he could have potentially achieved even more significant results at a more mature age. G. Lemen arrived at similar conclusions. Lehman (2017) stated that researchers tend to reach their peak scientific productivity and make their most significant discoveries around the age of 35-40. Therefore, it can be concluded that age has a significant impact on scientific productivity, and researchers should aim to make their most significant contributions during their peak years.

Additionally, renowned Ukrainian scientists demonstrated that the productivity versus age graphs is nearly identical for the USA, Germany, Italy, and the USSR. According to research, the most productive researchers are typically between the ages of 35 and 40, after which there is a gradual decline (Dobrov & Smirnov, 1972). S. Kanazawa tried to prove this. He analyzed the biographies of 280 scientists and concluded that the age distribution curve of scientists at the time of their greatest scientific contribution in their careers is similar to similar graphs of the genius of musicians, artists and the age distribution of criminals at the time of committing a crime. In addition, marriage has a strong influence on both crime and genius. Kanazawa argues that this is because both crime and genius stem from a developed psychological mechanism in men that makes them active and competitive in early adulthood, but this ability is 'switched off' when they marry and have children (Kanazawa, 2003).

However, Kanazawa's explanation only considers general psychological aspects and fails to acknowledge the multifaceted roles of a scientist, such as performing curatorial functions and training scientific staff. Such activities take up a lot of time, which may reduce individual productivity, but the overall benefit to science will increase.

Methodology

The article takes an analytical approach to examine the literature on scientists' productivity and their demographic indicators. In order to ensure the quality and impartiality of the findings, the author compared the analytical conclusions with information from reputable institutional sources. Specifically, the article analyzed information from international organizations dealing with universal science development issues such as OECD and UNESCO, as well as statistical and analytical data from Ukrainian institutions like the Ministry of Education and Science of Ukraine and the Ukrainian Institute of Scientific and Technical Expertise and Information. Additionally, the article utilized sources focusing on specific issues, such as STEM women and eLife magazine's "Sparks of Change" project, which highlights neurodivergent researchers.

The utilization of analysis, synthesis, and comparison techniques has illuminated the characteristics and heuristic potential of various approaches for identifying demographic issues within the scientific community and assessing a scientist's creative output while considering their correlation with the principles of epistemology, praxeology, and politics. For instance, research has demonstrated that in contemporary interdisciplinary science focused on problem-solving, a scientist's productivity is more closely linked to multidisciplinary education and affiliation with top universities than with age-related factors. The underrepresentation of women in STEM fields and the engagement of youth in scientific pursuits continue to be pertinent issues. During societal change and upheaval periods, safeguarding the scientific community's human resources becomes imperative. While participating in international academic mobility typically enhances research productivity, in the current globalized landscape, it is evolving into a political endeavor aimed at attracting and retaining researchers.

The analytical problem-solving approach has enabled the identification of new dimensions for broadening the demographic representation in the field of science, including their potential opportunities and challenges. Specifically, the principles of openness and inclusivity in scientific advancement necessitate the incorporation of considerations regarding the underrepresentation of racial and ethnic groups, as well as scientists with disabilities, into traditional approaches for shaping personnel policies within the scientific community.

Results and Discussion

A scientific discovery is a unique event that signifies the emergence of new scientific knowledge and the formation of a new scientific direction or paradigm. The discovery demonstrates the ingenuity of its creator, who was able to uncover something previously unknown to others. Productivity, measured by the number of publications in influential journals, may correlate with the author's experience, skills, competencies, activity, and diligence. Each scientific work involves formulating novel provisions, but more often it involves clarifying, analyzing, classifying, or typologizing obtained facts, interpreting previously known but perhaps not explicitly expressed knowledge, and reviewing existing literature. In other words, scientific discovery and the number of publications, even if widely cited, are distinct phenomena. The first is an event, while the latter provides information about the research and its results. Therefore, analyzing the demographic contingent of science and its impact on a scientist's creative productivity cannot be limited to age-related dimensions. The article should cover topics such as the participation of young people in science, migration patterns, the influence of the scientific environment on productivity, and increasing racial and ethnic diversity in the field.

Issues with determining a scientist's productive age

It is important to note that all of the studies on the productivity of scientists mentioned above are based on data from the first half of the XX century. However, studies that used data from the late XX century have produced different results. For instance, O.S. Vashulenko, O.P. Kostritsa, and O.S. Popovych analyzed the list of scientific publications of 118 full members of the National Academy of Sciences of Ukraine, as well as several dozen doctors of sciences who are not members of the Academy. They discovered that scientists are most active in terms

of publication at an average age of 55-65, which is 20-25 years later than in the first half of the XX century. The study analyzed chronological indicators of printed works and found that the most cited works were published between the ages of 55 and 59. The authors suggest that changes in the nature of scientific work and in science itself over the past half-century require adjustments to the management of research teams and personnel policy in science. It is important to utilize the experience and knowledge of older generations to train young scientists (Vashulenko et al., 2019).

The study by G. Yair and K. Goldstein confirms the uneven productivity of scientists and the presence of peaks of creative activity, known as 'year of miracles' (from Latin Annus Mirabilis). However, the researchers suggest that some scientists may experience multiple peaks. Productivity levels can be influenced by administrative factors, such as position and availability of a favorable creative environment (Yair & Goldstein, 2020).

The conclusions presented are based on a longitudinal study conducted by M. Kwiek and W. Roszka. The study aimed to determine whether scientists can maintain a consistent level of productivity throughout their careers. Productivity was defined as the number of publications in high-impact journals. The study found that the majority of researchers maintain a relatively constant level of productivity throughout their careers. Highly productive associate professors tend to maintain their productivity or become equally productive professors. Similarly, highly productive professors typically do not experience a decline in productivity with age. Therefore, a researcher's productivity should be considered a stable characteristic when making hiring decisions, as suggested by Kwiek and Roszka (2023).

Methodological approaches can explain certain contradictions in the interpretation of the productive age. The productivity of a scientist is commonly measured by quantitative indicators such as the number of publications, citations, and h-index. Therefore, the conclusions of C.W. Adams, S. Kanazawa, G. Yair, K. Goldstein, M. Kwiek, and W. Roszka may appear contradictory at first glance. The first three works suggest that scientists have a most productive period, while M. Kwiek and W. Roszka found that individual scientists tend to have stable productivity. To reconcile these seemingly contradictory findings, it should be noted that C.W. Adams analyzed the age of scientists who made outstanding discoveries, while M. Kwiek and W. Roszka considered quantitative indicators of labor results, such as publications.

A. Krauss' study is noteworthy for its analysis of the demographic and professional characteristics of scientists who have made significant contributions to science and received recognition for their achievements. Krauss analyzed the biographies of scientists who received 750 of the most important scientific achievements, including Nobel Prize winners and those recognized as outstanding. Krauss concluded that there are 'shifts' in science towards interdisciplinary education, obtaining outstanding achievements at an older age, and being located in leading universities (Krauss et al., 2023).

Although the history of science has seen many great discoverers who only graduated from high school, such as Faraday, Tesla, and Dalton, today's outstanding achievements are increasingly being made by scientists with interdisciplinary scientific education. While modern science is becoming more specialized, most scientists still have knowledge in a narrow field. However, A. Krauss found that the majority of Nobel Prize-winning discoveries (54%) were made by scientists who had received two or more degrees in different academic fields. Additionally, since 2000, over 70% of all discoveries have been made by scientists with dual degrees. It is important to note that disciplinary differences exist. Interdisciplinary collaborations yield outstanding results more frequently in medicine and biology, accounting for 69%, compared to only 39% in physics (Krauss et al., 2023).

Science is becoming concentrated in a few centers, leading to concerns of elitism. For instance, the top 25 ranked universities produced 30% of all discoveries, including those recognized as outstanding and Nobel Prize-winning. Additionally, five elite universities - Cambridge, Harvard, Berkeley, Chicago and Columbia - account for 16% of all Nobel Prize-winning discoveries (84 discoveries in total). The period of greatest productivity has shifted to the age range of 35-45 years, while the period during which a scientist receives recognition for their work has also become longer (Krauss et al., 2023). However, one aspect of science has remained unchanged: the low representation of female discoverers. Women account for only 5% of all scientists who have made a major discovery

and only 3% of all Nobel laureates. Nevertheless, there is a positive trend, with more than half of all female Nobel laureates having received the prize since 2000 (Krauss et al., 2023).

These transformations emphasize the significance of having adequate resources for modern science, including finance, instrumentation, equipment, opportunities for skill improvement and expansion, and the development and maintenance of communication. Additionally, there is a persistent need to eliminate barriers to research opportunities, particularly in STEM fields, for women (Stem Women, 2023).

The challenge of attracting early career researchers

A crucial issue of our time is the recruitment of young talent in science. This is not due to the older generation losing their position as active researchers, as demonstrated above, but rather because modern societies require more researchers with diverse specialties who can solve the problems of the contemporary world for innovative economic development.

Jean-Luc Simard, Rabeya F. Omar, Maurice Boissinot, and Michel G. Bergeron, Canadian researchers, highlight the worldwide decline in high school students' interest in science, regardless of gender. To address this issue, it is crucial to create scientific programs and activities that will motivate young people to pursue careers in science. The leading role in attracting the next generations of scientists should belong to research centers. To achieve this, the authors presented the Researcher for a Day programme, which offers high school student's immersive days in microbiology laboratories. This programme has already helped more than 4,000 young people who are considering a career in science to choose a career in science. Similar approaches could be applied in various settings to expand efforts to promote science among young people (Simard et al., 2019). The 'Researcher for a Day' project aims to encourage youth participation in science by highlighting its significance for social development and addressing challenges. The project offers young people the chance to gain valuable experience in a research laboratory, where they can learn from skilled professionals and work with advanced technologies. Scientists have the opportunity to share their passion for science with young people and demonstrate how to conduct research in a highly competitive sector

that demands extensive knowledge and interdisciplinary skills. It is important to spread such programmes widely and introduce young people to the problems prevalent in their region. These programmes should convey to them that they have the potential to become scientists and solve these problems, thereby improving their lives.

The decline in student interest in science, technology, engineering and mathematics (STEM) and related professions is a global concern (OECD, 2018). Science-based solutions and knowledge-intensive technologies are required to address complex challenges such as climate change, epidemic threats, and achieving the Sustainable Development Goals. Therefore, there is a need to increase the number of STEM specialists. The proportion of STEM graduates in European higher education institutions has remained at 26% for a considerable period of time. This figure is deemed inadequate to meet the human resource requirements for knowledge-intensive economic and social development (Drymiotou et al., 2021). The reasons for the reluctance to pursue a career in science are varied and include informational, cognitive, social, and motivational factors. Due to the complexity of the problem, it is suggested to utilize career-oriented programmes in education to familiarize oneself with the specifics and opportunities of STEM activities. These programmes should use a problem-based approach that includes scientific practices, exposure to the real creative environment of scientists, and informal communication with researchers. This will enable students to expand their knowledge of careers in science and form an attractive image of them.

For Ukraine, the problem of scientific human resources is extremely acute. Between 1990 and 2020, the number of researchers working in research and development decreased by a factor of 6.1 (Kuznetsova, 2020). However, the global trend is the opposite and is characterized by an increase in all indicators that determine the state of scientific and technological potential. Ukraine declares its European integration intentions, but today it lags far behind the EU countries in the main characteristics of its scientific and technological potential: investment in research and development as a percentage of GDP in the EU countries is on average 2.26% of GDP, in Ukraine - 0.29% in 2021, 0.33% in 2022 (Pysarenko & Kuranda, 2023). At the same time, the EU's strategic goals are to reach 3% of GDP in R&D investment. Instead, Ukraine is one of

the few countries in the world that is reducing research expenditure as a percentage of GDP (UNESCO, 2021). The average number of researchers per million inhabitants in the EU is 4,069, while in Ukraine it is 988. This means that Ukraine lags four times behind the EU in terms of human resources, and the national research intensity of GDP is almost seven times lower than the average value of this indicator in the EU. The human resource potential of Ukrainian science is facing a crisis, and its decline due to natural factors will persist even if the number of young people entering scientific institutions stabilizes. This issue is exemplified by the state of the human resource potential of the National Academy of Sciences of Ukraine, which is the main scientific organization in Ukraine. Researchers note that the human resource's structure is characterized by a low proportion of young people, which will contribute to the continued decline in numbers. It is important to note that this evaluation is objective and based on research findings. Even with active measures to increase the annual inflow of young people by 10%, the decline will only be slowed down, but full stabilization will not be achieved. Therefore, the decline in numbers will continue at least until 2030. An increase in youth recruitment to 15% could enhance the human resources potential of academic science by 2025. A 20% increase may bring the revival a couple of years closer (Popovych, & Kostrytsia, 2020, p. 30).

It is important to note that the article referenced was published in 2020, prior to the war period. As a result, it does not consider the complexities of the wartime situation for objective reasons. The field of science and innovation experienced significant losses during the war, which had a major impact on personnel, infrastructure, and the functioning of its entities. Approximately 15% of the research infrastructure was damaged, including unique scientific equipment, facilities, research laboratories, and centers for collective scientific equipment use. The impact of the war on the scientific sphere and the conditions for researchers and academic staff to carry out their professional activities has resulted in a decline in scientific human resource potential. The situation is particularly challenging for young scientists. According to information collected by the Ministry of Education and Science, over 5% of young scientists working in higher education institutions have relocated from Ukraine to other countries. The situation is even more concerning in academies of sciences, where 43% of young scientists have left Ukraine for other countries (MES of Ukraine, 2023, p. 44).

In Ukraine, there are various forms of state and institutional support and encouragement for young scientists. These include the Presidential Award for Young Scientists, the Verkhovna Rada Award for Young Scientists, and the Cabinet of Ministers Award for Special Achievements of Young People in the Development of Ukraine. Grants are available from various sources to support research by young scientists in Ukraine. These include grants from the Cabinet of Ministers of Ukraine, Nominal Scholarships from the Verkhovna Rada of Ukraine for young scientists who hold a Doctor of Sciences degree, and Research Projects from the National Academy of Sciences of Ukraine for young scientists. Additionally, research laboratories/groups of young scientists can apply for grants from the National Academy of Sciences of Ukraine. However, this extensive list of measures aimed at supporting young scientists does not fully solve the staffing problem. These actions are only temporary and local, and their effects are also temporary and local.

It is essential to establish a society where knowledge and human capital are recognized as the foundation of economic and social prosperity. Science, as a knowledge system and professional field, is highly valued because it serves as the basis for the development of knowledge-intensive innovative technologies. Therefore, what is required is not just individual support measures, but the creation of a culture of scientific and innovative thinking in society.

It is important to note that for young people entering the field of science to develop as professional researchers, they require a team of scientists from different generations to learn from. This team should possess experience, traditions, scientific ethos and ethical principles that are shared and form the necessary academic atmosphere for creative activity. Collaboration between young and experienced scientists contributes to scientific progress and career development.

Mobility's impact on scientist productivity

The internationalization of science is often associated with the mobility of scientists, which facilitates the dissemination and exchange of knowledge and ideas, and enhances their productivity (Verginer & Riccaboni, 2021).

According to the OECD (2017), mobility is a crucial factor in the circulation of knowledge worldwide, which contributes to the competitive

advantage of developed knowledge economies. However, if mobility involves the exchange of knowledge, ideas, and professionals and is a positive factor, we should not dismiss the problem of brain drain. This occurs when some countries gain scientific human capital while others lose it, and there may also be difficulties in adapting scientists to new conditions, etc. (Robinson-Garcia et al., 2019).

The mobility of scientists should be considered a complex political issue of attracting and retaining scientists. China has a successful track record in this area, with an open-door policy for foreign scientists and repatriation programmes for its compatriots. Furthermore, research indicates that repatriates are actively engaged in working, publishing highly cited papers, and playing a crucial role in maintaining China's connections with the global scientific community (Cao et al., 2019).

Based on the results of the network analysis, Chinese researchers draw conclusions about the emergence of a trend of multicentric mobility in science. In the past century (1921-2020), an increasing number of countries have participated in the global mobility of scientists. While the United States, the United Kingdom, and Germany were previously the primary destinations for scientists worldwide, China, India, and other countries have emerged as significant hubs for sending and receiving elite scientists (Cao et al., 2019). Thus, the contingent of science is expanding by involving more and more countries from different regions in global migration processes.

To highlight the intricacy of developing scientific capacity in China, it is worth noting the particular emphasis on youth science education (Wang, 2021). Over the past few decades, numerous national and regional programmes have been implemented to enhance the scientific literacy of young individuals. Additionally, the China Association for Science and Technology (CAST) has made significant strides in this field. Mobility in science facilitates the exchange of ideas and increases productivity. However, migration can have both positive and negative consequences. Migration processes can significantly alter the scientific landscape, especially during times of war and social transformation. For instance, during the Second World War, many prominent scientists were forced to leave Germany, resulting in a significant change in its scientific landscape for many years.

Currently, such processes are taking place in Ukraine. Researchers have identified several periods based on the motivational factors that influence scientists' migration decisions. The development of scientific migration from Ukraine can be divided into three stages. The first stage (1991-2012) was motivated by economic factors and the pursuit of stability. The second stage (2013-2021) saw more frequent moves for academic cooperation and financial support for research. The third stage (2022-present), which occurred during the full-scale war, was driven by a sense of insecurity and the inability to continue professional activities in Ukraine. It is noteworthy that many scientists who have left do not plan to return home. The availability of numerous international grants and support programmes and job offers facilitates the migration of Ukrainian researchers (Karmadonova, 2023). This highlights the need for systemic government measures to encourage the return of Ukrainian scientists and create favorable living and working conditions in their home country.

The role of the environment in enhancing a scientist's productivity

Science is a collaborative endeavor, and the traditions of the scientific community, including mentoring, scientific schools, and invisible colleges, are of great importance. In this context, the work of Weihua Li, Tomaso Aste, Fabio Caccioli, and Giacomo Leban is significant as it examines the long-term impact of co-authorship with well-known, highly cited scientists on the careers of young researchers. Research has shown that junior researchers who co-author with leading scientists have a competitive advantage throughout their careers compared to colleagues with similar early career achievements but no well-known co-authors (Li et al., 2019). This highlights the significance of teamwork, particularly for young researchers. It is important to note that this is just one aspect of the interaction between scientists of different generations. To address the demographic issue in science, an environmental or ecological approach should be prioritized over individual acts of support. R. Florida suggests creating a cultural climate that is favorable to the life and work of the creative class, which includes scientists. This climate should be characterized by tolerance, diversity, and openness to creativity (Florida, 2002).

Undoubtedly, Open Science should be utilized, and participation in international and European

research projects is necessary, as science is a global phenomenon with universal achievements. However, national and regional issues require scientific support. Society expects science to solve its most pressing problems, and scientists, as members of the national community, want to see the benefits of their research in the development of their own country.

Once again, attention is drawn to China as a scientifically advanced country. In 2006, China launched the Medium- and Long-Term Plan for the Development of Science and Technology (2006-2020), demonstrating its commitment to developing science and technology to lead the country to a leadership position. The plan aimed to achieve five goals: turning China's population dividend into a talent dividend, transitioning from a 'made in China' to an 'invented in China' model, prioritizing the development of 'software' over 'hardware', attracting human capital over foreign capital, and transitioning from an investment to an innovation model of development. The plan prioritizes talent development as its primary objective. To achieve this, national talent development programmes have been established across various sectors, and a policy has been developed to further employ talented young professionals (Cao et al., 2019).

Building an inclusive research culture

The broadening of the demographic contingent of science is a turn towards diversity and inclusion, in particular in addressing the professional problems of neurodivergent students, researchers or staff with disabilities. The latter can be seen as a remarkable phenomenon in the academic sphere, as science has always tried to find ways to deal with neurodiversity and to conduct research on neurodiverse people. Instead, the process of their inclusion in the professional community is currently underway. One example is the Sparks of Change project launched by the journal (eLife, 2023). Sparks of Change is a space for highlighting stories of how an inclusive research culture is developing, or should develop. In particular, the project features a series of articles by neurodivergent scientists talking about their own research experiences, the challenges they face, the opportunities they have to overcome them, and the benefits of inclusion for science. This is important because it is estimated that around 15-20% of people are neurodivergent. They may have talents and competitive advantages due to unusual skills, such as exceptional abilities in pattern recognition,

mathematics and good memory (Austin & Pisano, 2017). Uyen Vo notes that the establishment of safe spaces is urgently needed to provide validation and solidarity for neurodivergent scientists, allowing them to thrive and contribute their unique perspectives to the field of science (Vo, 2023).

In recent years, there has been active discussion about the underrepresentation of racial and ethnic groups in science. The issue is often due to language barriers faced by racial and ethnic minority PhD students, limited interaction with teachers before starting their postgraduate studies, and discrimination. To overcome these challenges, it is necessary to take special measures. For instance, Johns Hopkins University (USA) organizes a symposium on the 'hidden curriculum' to assist new students from underrepresented groups in preparing for postgraduate studies. This includes providing information on admission requirements and practical advice on how to meet them. In addition to providing information about graduate school admission requirements, students are given detailed information about various university resources. These include tutoring services offered by peer study groups, supplemental notes and materials, and practice exams. The university also offers accommodations for people with disabilities, and students are advised on how to report violence (Edwards et al., 2022).

Conclusions

The principles of scientific institutions, the interaction of scientists, and the relationship between science and society are changing due to globalization processes, the spread of information and communication technologies, and the formation of network ties.

The demographic contingent of the scientific community is expanding due to various factors. These include the extension of productive periods, allowing scientists to remain productive for longer periods of time, the use of academic multicentric mobility and interdisciplinarity, which can increase scientific productivity and lead to breakthrough discoveries, and the development of a favorable environment for creative work. Additionally, the principles of inclusive research culture are being introduced in science, leading to an expansion of racial and ethnic diversity.

At the same time, attracting young people to science is becoming a challenge. Therefore, it is

increasingly important to search for innovative projects that can develop scientific talents among young people, create a culture of scientific and innovative thinking in society, and enhance human capital. Supporting interdisciplinary education and research is crucial for solving the social development challenges faced by humanity.

The prospects for further research lie in the analysis of international cooperation among scientists and the activities of international organizations dealing with science as factors in the transformation of the demographic contingent of the scientific community.

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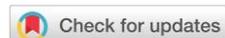
Interethnic tolerance of modern students

МІЖЕТНІЧНА ТОЛЕРАНТНІСТЬ СТУДЕНТСЬКОЇ МОЛОДІ

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Abstract

The paper considers the problem of interethnic tolerance in individuals. The theoretical analysis of the scientific literature shows that interethnic tolerance is an important indicator of the culture of international relations, has a deep axiological meaning, and is closely related to the value perceptions of the individual. The aggravation of interethnic issues in the youth student environment causes local conflicts, xenophobia, manifestations of nationalism, chauvinism, incitement to ethnic hatred, enmity, and intolerance between representatives of different nationalities. In this regard, the difficulty of developing interethnic tolerance when working with the younger generation is of particular importance, which makes it necessary to form a personal social position for young people and raise their level of interethnic culture. The purpose of our work is to study the individual

Анотація

В роботі розглядається проблема міжетнічної толерантності особистості. Теоретичний аналіз наукової літератури показує, що міжетнічна толерантність є важливим показником культури міжнародних відносин, має глибоке аксіологічне значення та тісно пов'язана з ціннісними уявленнями особистості. Поглиблення міжетнічних питань у молодіжному студентському середовищі призводить до локальних конфліктів, ксенофобії, проявів націоналізму, шовінізму, підбурювання до етнічної ненависті, ворожнечі та нетерпимості між представниками різних національностей. У зв'язку з цим, складність розвитку міжетнічної толерантності при роботі з молодшим поколінням має особливе значення, що зумовлює необхідність формування особистісної соціальної позиції молоді та підвищення її рівня міжнаціональної

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psychological features of the manifestation of interethnic tolerance in a person. The psychodiagnostic complex consisted of the "Tolerance Index" and the "16 Personality Factor Questionnaire" by R. Cattell. The correlation analysis allowed us to confirm the existence of significant relationships between the indicators of interethnic tolerance and personality factors. The qualitative analysis and construction of profiles allowed us to provide psychological characteristics of individuals with different levels of the general indicator of interethnic tolerance.

Keywords: tolerance, interethnic tolerance, personality, individual differences, personality factors, student youth.

культури. Метою нашої роботи є вивчення індивідуально-психологічних особливостей прояву міжетнічної толерантності у людини. Психодіагностичний комплекс складався з "Індексу толерантності" та "Опитувальника 16 особистісних факторів" Р. Кеттела. Кореляційний аналіз дозволив підтвердити існування значущих зв'язків між показниками міжетнічної толерантності та факторами особистості. Якісний аналіз та побудова профілів дозволили надати психологічну характеристику особам з різним рівнем загального показника міжетнічної толерантності.

Ключові слова: толерантність, міжетнічна толерантність, особистість, індивідуальні відмінності, фактори особистості, студентська молодь

Introduction

Relevance of the research.

The issue of tolerance, interethnic tolerance of the individual, has at various times taken a certain position in philosophical, psychological, pedagogical, political and other humanitarian studies. Today, Ukrainian society is becoming more multi-ethnic, new challenges arise due to the intensification of migration flows and the features of modern geopolitical processes. Awareness of the interdependence of people in a multiethnic society requires a change in the existing relations, namely, respect for the legitimate rights of another person, the right to be different, to preach one's views, to belong to a different culture, etc. Student youth are especially sensitive to the problem of interethnic tolerance and the most sensitive part of our society.

Coexistence with people of other nationalities, different beliefs, and a different worldview is interethnic tolerance. Interethnic tolerance (from the Latin tolerare - to tolerate) is a patient attitude of representatives of one ethnic community toward representatives of another community, to different cultural traditions, and a willingness to interact positively with people of different ethnicities. The emergence and functioning of the concept of "interethnic tolerance" are associated with a multiethnic, multicultural environment, the structuring of which is determined by the presence of various ethnic and cultural communities and the policy of the authorities regarding this phenomenon (Yevtukh, 2012). Interethnic tolerance is an active position of helping another person and, at the same time,

feeling more confident and stable together in a multiethnic, multi-religious country. Interethnic tolerance in society contributes to the internal sustainability of society, its stability, and the stability of every citizen who has different views and attitudes towards life and creates conditions for self-discovery and self-development. Any country, region, or oblast needs interethnic tolerance as a form of diversity.

The methodological basis of the study of the issue of the development of interethnic tolerance as a personality quality is the work of researchers who present tolerance as a social norm of human life and a state capable of reconciling people of different faiths and nations, and interpret interethnic tolerance as a necessary quality of a modern, developed human personality in connection with the problem of establishing equal relations with representatives of other ethnic groups (Kolesnichenko, 2022; Sergienko & Shevchenko, 2018).

The paper **aims to** empirically study the psychological characteristics of individuals with different levels of interethnic tolerance

The Object of the Study: interethnic tolerance of the individual.

Research Methods.

The empirical study was conducted in three stages: preparatory, diagnostic, analytical and interpretive. To diagnose interethnic tolerance, the methodology "Tolerance Index" by Soldatova et al., (2008) was used; to study the

personality traits that accompany, in our opinion, the manifestation of interethnic tolerance, the methodology "The 16 Personality Factor Questionnaire" by Cattell & Mead (2008) was used. The study involved 242 students from the Faculty of Preschool Pedagogy and Psychology and the Faculty of Social Sciences and Humanities of the State Institution "South Ukrainian National Pedagogical University named after K. D. Ushynsky". To establish significant relationships between the indicators of interethnic tolerance and personality factors, according to R. Cattell, a correlation analysis was carried out using Spearman's coefficient, which was calculated using the program SPSS 13.0 for Microsoft Windows.

The research was conducted in accordance with the principles of deontology and bioethics.

A set of valid and reliable diagnostic methods was developed for this empirical study.

Computer data processing was carried out using the statistical package SPSS 13.0 for Windows.

Literature Review

An analysis of the historical aspects of interethnic tolerance in English-speaking countries shows that the problems of xenophobia, intolerance, and national hatred are also quite acute here. Numerous publications have been devoted to interethnic tolerance, covering various aspects of this issue: the history of interaction with forms and manifestations of intolerance in the United States, Canada, the United Kingdom, and other European countries; the modern academic and cultural assimilation of immigrants and the strengthening, the history of multiculturalism and transnationalism (Carens (1999); Hogarth, & Fletcher (2018); Kivisto, & Ng. (2005); Mason (2000); Wallis, & Fleras (2009); J. Kafka (2011)); modern racial prejudice and bias Carbado et al., (2014); ethnic, national, and religious discrimination Benner et al., (2018); Abrams et al., (2020).

The problems of interethnic tolerance are comprehended in the works of such Ukrainian scholars as: T. Atroshchenko (2018), Verbytskyi (2013), Dichkivska. (2019); Zalanovska (2011); Kolesnichenko (2022); Skok (2016), Tyshyk (2013), and others. The issues of multicultural education, interethnic relations, and tolerance education were studied by Babchuk (2012); Hryva (2008); Kapidinova (2015), Yaksa (2010), and others.

The umbrella term and concept from which "interethnic tolerance" is derived is, of course, the multifaceted term "tolerance." The etymology of the term "tolerance" comes from the Latin verb tolero - "to bear," "to hold," "to endure" (Babchuk, 2012). A more complete definition (although tolerance is here identified with forbearance), revealing the moral essence of tolerance (acceptance), is given in the ethics dictionary: "Tolerance is a moral quality that describes a patient attitude toward the interests, beliefs, convictions, and behavioral habits of other people. It is expressed in the desire to achieve mutual understanding and agreement among diverse interests and points of view without the use of extreme pressure, mainly through methods of explanation and persuasion. It is a form of respect for another person, recognition of his/her right to his/her own beliefs, to be different from me" (Kon, 1981).

Furthermore, the first manifestations of tolerance were associated with the regulation of individuals' belonging to different religious societies and were a form of religious tolerance. Modern ideas about tolerance and its recognition as a factor that strengthens the civilized world and protects against injustice, were largely prepared by the activities of philosophers of the XVI-XVII centuries, who rebelled against the "patience of intolerance" and violent religious conflicts. The most consistent critic of fanaticism and defender of tolerance was Voltaire. In his "Treatise on Tolerance" (Voltaire, 2017), he does not criticize any particular religion, but shows how they, merciful in nature, are corroded by prejudice and intolerance. In his opinion, all beliefs should have the opportunity for expression, but "the height of madness is the belief that all people are obliged to think alike about abstract things." The most important result of the work of philosophers, and especially Voltaire, was the recognition of tolerance as a universal value and a key component of peace and harmony between religions, nations, and other social groups.

The concept of "tolerance" is undergoing a certain transformation and rethinking in the modern scientific literature. For example, the book by Professor D. Carson, "The intolerance of tolerance" questions the current understanding of tolerance (Carson, 2012). The book describes a huge shift in the way we have come to understand tolerance in recent years - from protecting the rights of those who hold different beliefs to affirming all beliefs as equally valid and correct. Looking back at the evolution of this shift, the

author discusses its importance for culture today, its impact on democracy, and the debate about good and evil. In doing so, D. Carson proves not only that the "new tolerance" is socially dangerous, but also that it actually leads to real intolerance towards all those who try their best to defend their beliefs.

Many contemporary scholars try to understand the essence of true tolerance and interpret it as the ability to live among ethnocultural differences that we cannot approve of, or as a "virtue" that allows us to accept: beliefs that we consider false; actions that we consider unjust; institutional mechanisms that we consider cruel or corrupt; and people who embody what we oppose (Bowlin, 2017). Other researchers, on the other hand, provide convincing arguments in favor of "conditional tolerance," which requires us to constantly discuss and reflect on the limits of what we are willing to tolerate (Nuraan & Waghid, 2017).

Today, there is a wide range of interpretations of this term. Tolerance understood as an important element of the peaceful coexistence of mankind, is recognized as a humanistic value and a necessary condition for the social unity of people of different cultural traditions, beliefs, scientific and political convictions. Tolerance means respect, acceptance, and proper understanding of the entire diversity of cultures, forms of expression, and manifestations of human individuality. It is unity in diversity, a quality that is a humanistic component of a personality and is determined by his or her value attitude toward others. It represents an attitude toward a highly moral type of relationship, which is manifested in the personal actions of a person (Babchuk et al., 2023).

The analysis of scientific literature allows us to consider many factors that influence the development of interethnic tolerance in a person. Their components are: education, learning, cultural, social, and mental features of the region and ethnicity in which a person, stereotypes, and religion live and develops.

Thus, E. Bimbaeva presents the main aspects of the manifestation of internal and external factors in the formation of interethnic tolerance among students. The author includes the following internal factors: "individual features of a personality (age, gender, level of education, social status, ethnicity); individual-typological features of a personality (ethnic self-identification, type of interethnic behavior, presence of stable models of perception of representatives of different ethnic groups as "close", "strangers", "special")". The external factors of interethnic tolerance include the specifics of the socio-cultural environment, state policy in the interethnic sphere, the political situation in the country and the region, the education system and educational institutions, and the media (Bimbaeva, 2011).

The study by Abdul Razaq Ahmad, et al (Ahmad et al., 2018), which aims to study the factors that contribute to ethnic tolerance among multinational youth, identified the following four factors: social environment, social participation, knowledge, and experience of patriotism. The researchers define ethnic tolerance as ethnic relations and unity between a plurality of ethnic groups that follow different cultures, religions, and lifestyles that differ from each other, and that can live together without experiencing prejudice towards each other.

The development of interethnic tolerance in an individual is carried out in the process of multicultural education. It is understood as education based on two or more cultural traditions in their dynamic combination and ensuring the development of students' culture and themselves as a result of creative intercultural enrichment (Yaksa, 2010).

A similar view is shared by Per Adman and Lutz Gschwind (Adman & Gschwind, 2023), who hypothesize that education can contribute to ethnic tolerance. They propose a new approach to help mitigate the risk of social-desirability bias (SDB) using a multivariate survey experiment with vignette-sized names. In an experiment with a well-established survey, the Swedish version of the European Values Survey, the authors show that people with high levels of education are more tolerant of ethnic minorities, even at a lower risk of SDB.

In our opinion, the most important aspect of the development of interethnic tolerance is the personality traits that enhance and facilitate the manifestation of the phenomenon.

For example, L. Zalanovska, based on a systematic approach to the study of interethnic tolerance, concludes that the sources of this phenomenon can be occurrences at both individual and group levels. Also, norms, values, ideas, and patterns of behavior are enshrined in public opinion. Meanwhile, group and individual determinants of interethnic intolerance are in close interaction with the phenomenon of public opinion. At the individual level, the emergence

of interethnic intolerance occurs primarily as a result of frustration, which leads to aggression, or improper upbringing, which forms a set of psychological properties of a person. At the group level, the determinants of interethnic intolerance are negative ethnic identity, migration, nationalism, and negative ethnostereotypes (Zalanovska, 2011).

In her study, A. Skok notes that the main components of interethnic tolerance are cognitive (a set of knowledge and views about the mental composition of ethnic groups, ethnic stereotypes, ethnic conflicts, and national character), emotional and communicative (external manifestation of interethnic tolerance; levels of manifestation - emotionality, ability to empathize, communicative tolerance) and personal-communicative (integral property of a person's integral personality; level of manifestation - motivational and value - value orientations, ethnic identity, needs) (Skok, 2016).

Results and Discussion

In light of the above, the correlations between the indicators of interethnic tolerance and personality factors, according to R. Cattell were analyzed. The results of the correlation analysis are presented in Table 1.

Table 1.

Significant correlation coefficients between indicators of interethnic tolerance and personality factors

Factors of personality (according to R. Cattell)	Indicators of interethnic tolerance			
	ET	ST	TPT	GIIT
C	175**		138*	172**
H	138*	169**	130*	169**
O		-132*	-125*	-128
Q_1	127*			
Q_4	-180**	-128*	-136*	-130*
Q_I	132*	134*	126*	135*
Q_{II}	-122*	-129*	-181**	-129*

(according to R. Cattell)

Notes: 1) in the table zeros and commas are omitted; 2) $p< 0.01$**, $p<0.05$*;3) indicators of interethnic tolerance: ET - Ethnic tolerance; ST - Social tolerance; TPT - Tolerance as a personality trait; GIIT - general indicator of interethnic tolerance; 4) indicators of personality factors: C (self-strength - self-weakness); H (courage - timidity); O (guilt - self-confidence); Q1 (radicalism - conservatism); Q2 (self-sufficiency - dependence on the group); Q4 (frustration - non-frustration); Q I (extraversion - introversion); Q II (anxiety - emotional stability).

For our study, it is important to know how certain indicators of interethnic tolerance correlate with personality factors. These connections reflect tendencies but also have certain specifics.

The ET (Ethnic Tolerance) indicator reveals positive and negative relationships with the indicators: C+ (self-strength) and Q4- (non-frustration) - at the level of $p≤0.01$. This indicator of ET (emotional tolerance) shows positive relationships with the indicators: H+ (courage), Q1 (radicalism), Q I+ (extraversion), negative - with indicators and Q II - (emotional stability) - at the level of $p≤0.05$. The resulting connections are characterized by emotional maturity, constant interests (C+), idealism, high creative potential, a tendency to be enthusiastic, and balanced (Q4-), responsiveness and impulsivity (H+), free-thinking, tolerance for inconvenience (Q1+), maintaining social ties (Q I+), and the ability to achieve the desired (Q II -).

The indicator ST (Social Tolerance) shows positive relationships with the indicators, H+ (Courage) - at the level of $p≤0.01$. Positive relationships are found with the indicators: Q I+ (extraversion) and negative ones with the indicators: O- (self-confidence); Q4- (non-frustration); Q II - (emotional stability) - at the level of $p≤0.05$.

Such connections are characterized by the presence of the following mental characteristics in a person: impulsiveness and courage, readiness for cooperation, sensitivity, serenity, determination (H+), dissatisfaction with what has been achieved (Q I+), self-confidence, coolness, insensitivity to the approval or disapproval of others (O-), relaxation, weakness, indifference, (Q4-), and restraint and maintenance of social contacts (Q II -).

The indicator TPT (Tolerance as a personality trait) revealed a negative connection with the

indicator Q II - (emotional stability) at the level of p≤0.01. Positive connections at the level of p≤0.05 were found with the indicators: C+ (self-strength), H+ (courage), Q I + (extraversion), and negative with the indicators: O- (self-confidence); Q4- (non-frustration).

Thus, according to our study, such connections are accompanied by the presence of such qualities as emotional stability, emotional resilience, confidence, perseverance, persistence, serenity, determination, and courage. They are characterized by the ability to manage the situation, avoid difficulties, realism about life, and readiness for the community (H+), experiencing internal conflict (O-), excessive satisfaction, and equanimity (Q4-).

The indicator of GIIT (general indicator of interethnic tolerance) revealed positive relationships with the indicators: C+ (self-strength), and H+ (courage) - at the level of p≤0.01. Positive and negative relationships with the indicators: Q I+ (extraversion), Q4- (non-frustration), Q II - (emotional stability) - at the level of p≤0.05. Such connections demonstrate emotional maturity, the presence of permanent interests, the ability to really assess and manage the situation (C+), being unfavorable to danger, social courage, friendliness, impulsivity (H+), maintaining social ties (Q I +), the ability to achieve the desired (Q II -), balance and apathy (Q4-).

Overall, the results of our study revealed that the indicators of interethnic tolerance correlate at a high level of significance ($p \leq 0.01$, $p \leq 0.05$) with the following personality factors: C+ (self-strength), H+ (courage), Q I + (extraversion), Q4- (non-frustration), Q II - (emotional stability). That is, we can assume that all these factors are inherent in interethnic tolerance.

The next step in the qualitative analysis was to build and interpret the profiles of personality traits studied in relation to interethnic tolerance. The level of tolerance was determined as follows.

First, the "raw" scores obtained on the scales of the methodology were converted into percentiles. The range from 0 to 25 was considered the range of unexpressed values of the indicator corresponding to manifestations of interethnic intolerance; from 25 to 50 - the range of weakly expressed values (low); from 50 to 75 - the range of sufficiently expressed values; and from 75 to 100 - the range of distinctly manifested values of interethnic tolerance indicators. Thus, people with a general indicator of interethnic tolerance in the range of 0-25 percentiles formed a group with a low level of interethnic tolerance - GIIT- (n=15). However, people with a general indicator whose values are in the range of 75-100 percentiles created a group with a high level of interethnic tolerance - GIIT+ (n=7).

Curves are built using numerical data represented in percentiles, bars, etc. Raw scores can also be used, taking into account the average line of the range. In each group, arithmetic averages are calculated for each psychological indicator. This makes it possible to identify the specifics of the psychological properties being studied, the representatives of the selected groups, and to compare the profiles of these properties among representatives of different groups. The psychological interpretation of the profile is based on the indicators that deviate most from the average line of the row (Babchuk, 2012).

At this stage of the research, we solve the problem of studying the factor structure of personality in individuals with different manifestations of interethnic tolerance. This makes it possible to draw up a psychological characterization of a person depending on his or her level of interethnic tolerance.

Pic. 1 shows the profiles of personality factors in individuals with high and low levels of interethnic tolerance. The abscissa axis indicates the factors, and the ordinate axis shows the degree of their expression in the bars. The middle line of the row passes through the point at 5.5 bars.

	A	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4	QI	QII	QIII	QIV
GIIT+	7,1	4,1	4,7	6	6,7	6,4	4,2	5	3,6	4,4	4,8	6,1	4,1	7	5,1	5,8	4,8	5,3	3,3
GIIT-	4,3	5,2	3,2	4,6	5,1	4,9	5,9	5,3	4,5	6,2	4,8	3,9	4,6	6,1	5,2	4,6	4,9	5,1	3,5
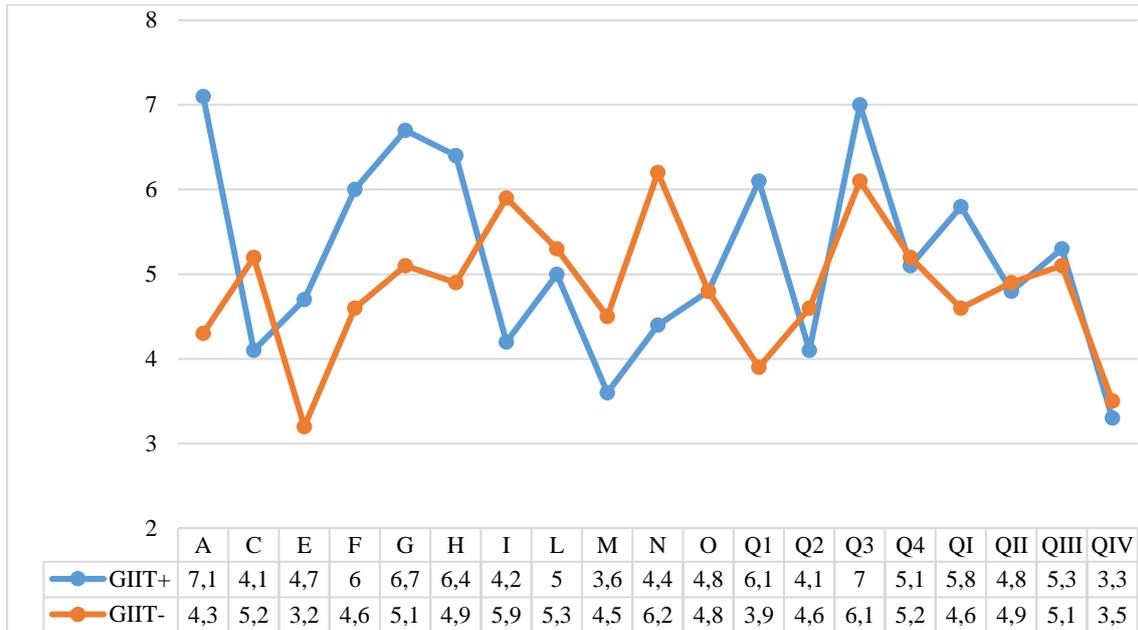
Pic. 1. Factor structure of personality in people with different levels of general interethnic tolerance.

To compile a psychological characterization of people with different manifestations of interethnic tolerance, we will determine by ranking the factors that most clearly differ from the average values (see Table 2).

Table 2.
Ranking of personality factors according to Cattell in groups with high and low levels of interethnic tolerance (GIIT+ and GIIT-)

Rank	Levels of interethnic tolerance	
	High level (GIIT+)	Low level (GIIT-)
1	A⁺ Affectothymia	I⁺ Sensitivity
2	F⁺ Safety	N⁺ Perceptiveness
3	G⁺ The power of the "Upward Self"	Q₁⁻ Conservatism
4	H⁺ Social bravery	E⁻ Humility
5	M- Practicality	
6	Q₃⁺ High self-control	

Consequently, people with a high general level of interethnic tolerance (GIIT+) are inherent in the diversity and brightness of emotional manifestations, naturalness, and ease of behavior, willingness to cooperate, sensitive, attentive attitude toward people, kindness, and cordiality. Individuals with values in the A+ category get along well in a team, are active in establishing contacts, and enjoy working with people and participating in social events.

High scores on the F+ factor is typical for people who are cheerful, active, carefree, and easy-going. They live their lives without thinking seriously about what is happening, have an easygoing attitude to life, believe in luck and their talent, do not worry about the future, and build their lives on the rule of "maybe it will work out." Studies show that these people have a simpler, more optimistic character, or their carefree attitude toward life arises from a lower level of aspirations.

At the pole of high values of the G+ factor are such traits as responsibility, discipline, conscientiousness, and the stability of moral principles. These people are deeply decent, not because it is beneficial to behave in this way in certain circumstances, but because they cannot behave differently according to their beliefs. They are precise and thorough in their dealings, like order in everything, do not break the rules, and follow them even when the rules seem to be an empty formality. High integrity and conscientiousness are usually combined with good self-control and the desire to promote universal values, sometimes in spite of their own selfish goals.

High scores indicate immunity to danger, courage, risk-taking, and keen senses. Examinations of people with H+ show that they freely establish contacts, do not experience difficulties in communication, speak willingly and a lot, do not get confused when faced with unforeseen circumstances, and forget about failures quickly. They also do not draw proper conclusions from the punishments they have experienced. In group activities, people with H+ are often chosen as leaders, especially if the activity involves rivalry, competition, or risk. Apparently, this factor is important for success in those activities where it is necessary to be able to counteract fatigue when working with people and withstand emotional stress. There is experimental evidence that people with H+ have more frequent blood pressure elevations and are more likely to suffer from cardiovascular disease, which is explained by their greater emotional activity.

Low scores on the M- factor are inherent in people who are mature, balanced, sensible, well versed in vital things, and soberly assess circumstances and people. However, in unexpected situations, they often lack imagination and ingenuity.

High scores indicate organization and the ability to control emotions and behavior. A person with Q3+ acts in a systematic and measured manner, overcomes obstacles with perseverance, does not take on several tasks at once, and completes the work he or she has started. He or she is well aware of social requirements, tries to fulfill them carefully, and cares about the impression they make with their behavior and their public reputation. Reliable leaders score highly on this factor.

People with a low general level of interethnic tolerance (GIIT-) are characterized by pretense, prudence, perceptiveness, the ability to behave coldly and rationally, not to respond to emotional impulses, and to see logic behind feelings. They always behave in a correct, polite and detached manner, approach everything in a rational and unsentimental way, assess possible chances with cold analytical skills before doing anything, cunningly and skillfully build their behavior, are skeptical to slogans and appeals, and are prone to intrigue and sophisticated cunning.

A high score on the I+ factor is an indicator of softness, sophistication, imaginative, and artistic perception of the world. Appearance, style of behavior - everything indicates a refined taste, sophistication, and subtlety of vision. Such individuals do not like "rude people" and "rough work"; they are romantically inclined to travel and new experiences, have developed imagination and aesthetic taste, and artistic works have a greater impact on their lives than real events.

Low scores on factor Q1 are typical of conservative, rigid people who do not like change. These are people with stable views. They meet everything new with caution, even hostility. It seems absurd to them, they do not allow for a different point of view, they are prone to preaching, moralizing, and giving advice. They believe that all shortcomings will be overcome if they strictly follow all the requirements of older and more experienced people. Their own initiative and ingenuity can only destroy everything that is already well organized. All harm, in their opinion, comes from people who violate principles and traditions and do not want to accept the experiences of older generations.

People with a low score on the E-factor behave as obedient, conformist, unable to defend their point of view, obey the stronger, voluntarily give up their own interests and do not believe in themselves and their abilities. They often find themselves dependent on others, take the blame, and humbly submit to all responsibilities. Such passivity is part of many neurotic conditions. Low dominance is positively related to academic performance in all age groups.

Thus, it can be noted that the psychological characteristics obtained by us of persons with a high level of interethnic tolerance indicate that they have the qualities of warmth and courage described above. These qualities are also confirmed by literature data (Zalanovska, 2011; Bimbaeva, 2011). And representatives of the group with a low level of interethnic tolerance are characterized by restlessness and a certain limitation. Excessive attention to details also does not contradict the overall picture of personality traits, but on the contrary, it is combined with their inability to deviate from a certain order of things, which is a sign of categoricalness. In the literature, it is indicated that the simultaneous expression of all the obtained factors testifies to the independence of the individual, his criticality, originality (Babchuk, 2012; Skok, 2016).

Conclusions

1. An empirical study of the psychological characteristics of people with different levels of interethnic tolerance allowed us to

consider interethnic tolerance as an integral property of a person's integral individuality in the unity of his personal, subject and individual properties.

2. Correlation analysis suggests that the expression of interethnic tolerance is accompanied by such qualities as emotional stability and maturity, realism, confidence, perseverance, persistence, readiness for cooperation, courage, sensitivity, serenity, determination, unconstrained, balanced, indifference, ability to establish and maintain social contacts, stability, cheerfulness, determination, and entrepreneurship.

3. Qualitative analysis made it possible to single out persons with different levels of interethnic tolerance and provide them with a psychological characteristic. So, an empirical study of the psychological characteristics of people with different general levels of interethnic tolerance showed that the expressiveness of this multicomponent property determines the overall picture of personality traits, since its various components are closely related to the peculiarities of temperament and character. The development of a training program on the formation of interethnic tolerance of future specialists can be a perspective of the research.

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