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**Олена СЕМЕНОГ**

Сумський державний педагогічний університет імені А.С.Макаренка, Україна

<https://orcid.org/0000-0002-8697-8602>

[olenasemenog@gmail.com](mailto:olenasemenog@gmail.com)

**Ян КАПРАНОВ**

Університет VIZJA, Польща

Таврійський державний агротехнологічний університет імені Дмитра Моторного, Україна

<https://orcid.org/0000-0003-2915-038X>

[y.kapranov@vizja.pl](mailto:y.kapranov@vizja.pl)

## ПОСТУП УКРАЇНСЬКОЇ PHD-ОСВІТИ ЧЕРЕЗ ІНТЕГРАЦІЮ ЄВРОПЕЙСЬКИХ НАУКОВИХ ЦІННОСТЕЙ: ОСНОВНІ ПРИНЦИПИ ТА ПРАКТИКИ

**Анотація.** У статті розглянуто процес інтеграції європейських наукових цінностей у підготовку докторів філософії (PhD) в Україні, що набуває особливої актуальності в умовах євроінтеграції та воєнних викликів. Обґрунтовано, що академічна доброчесність, інтердисциплінарність, відкритість науки, розвиток трансверсальних компетентностей і соціальна відповідальність формують ядро сучасної європейської моделі докторської освіти (EHEA, ERA). Дослідження здійснено на прикладі освітньо-наукової програми «Освітні, педагогічні науки» та дисципліни «Етика наукового пошуку: філософські, мовні аспекти» в СумДПУ імені А. С. Макаренка. Використано поєднання теоретичних методів (аналіз європейських політик, звітів EUA-CDE, наукових публікацій) та емпіричних методів (спостереження, круглі столи, інтерв'ю з аспірантами, викладачами, гарантами програм). Результати показали, що українські програми докторантури поступово наближаються до європейських стандартів завдяки впровадженню принципів академічної культури, розвитку цифрових інструментів і практик відкритої науки, зміцненню етичних норм та соціально значущих компетентностей. Особливу увагу приділено феномену стійкості (resilience) української PhD-освіти у воєнний час, що відображає нову культуру відповідальності та адаптивності. У висновках підкреслено, що інтеграція європейських цінностей є не лише умовою модернізації національної докторської освіти, але й внеском України у розвиток загальноєвропейського науково-освітнього простору.

**Ключові слова:** докторська освіта; навчальна дисципліна; європейські наукові цінності; академічна доброчесність; відкритість науки; трансверсальні компетентності; стійкість; Україна; університет.

**Olena SEMENOG**

Sumy State Pedagogical University named after A.S. Makarenko, Ukraine

<https://orcid.org/0000-0002-8697-8602>

[olenasemenog@gmail.com](mailto:olenasemenog@gmail.com)

**Yan KAPRANOV**

VIZJA University, Poland

Dmytro Motorny Tavria State Agrotechnological University, Ukraine

<https://orcid.org/0000-0003-2915-038X>

[y.kapranov@vizja.pl](mailto:y.kapranov@vizja.pl)

## ADVANCING UKRAINIAN PHD EDUCATION THROUGH THE INTEGRATION OF EUROPEAN SCIENTIFIC VALUES: KEY PRINCIPLES AND PRACTICES

**Abstract.** This article examines the integration of European scientific values into the training of Doctor of Philosophy (Ph.D.) students in Ukraine, a process that has become particularly relevant in the context of European integration and wartime challenges. It argues that academic integrity, interdisciplinarity, open science, the development of transversal competences, and social responsibility constitute the core of the modern European model of doctoral education, as reflected in the European Higher Education Area (EHEA) and the European Research Area (ERA). The study focuses on the educational-scientific program of Educational and Pedagogical Sciences and the course "Ethics of Scientific Inquiry: Philosophical and Linguistic Aspects" at Sumy State Pedagogical University. A mixed-methodology approach was employed, combining theoretical methods (analysis of European policy frameworks, EUA-CDE reports, and scholarly publications) with empirical methods (observation of the doctoral process, roundtables, and semi-structured interviews with PhD students, supervisors, and program guarantors). The findings indicate that Ukrainian doctoral programs are progressively converging with European standards by embedding academic culture, adopting digital tools and open science practices, reinforcing ethical norms, and developing socially relevant competences. Particular attention is given to the resilience of Ukrainian PhD education under wartime conditions, which reflects a new culture of shared responsibility and adaptability. The article concludes that the integration of European values is not only a precondition for modernizing Ukrainian doctoral education but also a significant contribution to the development of the broader European scientific and educational space.

**Keywords:** doctoral education; academic discipline; European scientific values; academic integrity; open science; transversal competences; resilience; Ukraine; University.

**Problem Statement.** The contemporary European educational and scientific community operates under conditions of rapid digitalization of research and information spaces, the expansion of transdisciplinary knowledge, and the growing impact of political, economic, environmental, and military crises [8]. Ukraine, despite the ongoing war and the extensive destruction of higher education institutions and research infrastructures, continues to demonstrate resilience and determination in preserving and advancing its academic potential (O. Fast [12]; Y. Tytska [22]).

The country's integration into the European Union requires not only the harmonization of legislation, the economy, and social institutions with EU standards, but also the adaptation of its higher education and research systems to European scientific values (Rome Ministerial Communiqué [16]; Tirana Ministerial Communiqué [21]). Within this process, doctoral education (PhD) assumes particular importance as a strategic instrument for fostering innovation, advancing research quality, and ensuring sustainable societal development, as noted by P.Alves, A.Lopes, R.Cruz-Correia, & I.Menezes [3], S.Cardoso [8].

The European model of PhD education, as emphasized by M.Kovačević, A.Bitušková, & T. Dagen [14]; L.Zinner, B.Lindorfer, & O'Reilly, A. [24], is oriented toward overcoming barriers, promoting diversity, and generating knowledge with strong socio-economic and cultural relevance. The Salzburg Principles and the European Code of Research Integrity (2017) [2], as well as the studies by S.Abdi, D.Pizzolato, B. Nemery, & K.Dierickx [1], and A. Kuzmenko [15], stress that doctoral candidates must be prepared not only as highly qualified researchers but also as socially responsible individuals capable of upholding ethical principles, engaging in interdisciplinary collaboration, and contributing to the public good.

For Ukraine, integrating European scientific values into doctoral training is both a necessity and an opportunity. It enables the country to strengthen academic culture, provide support for the next generation of researchers during wartime [12], and align doctoral programs with the standards of the European Higher Education Area (EHEA) and the European Research Area (ERA) (European Commission, 2024; EUA-CDE, 2025 [11]). Embedding values such as academic freedom and autonomy, interdisciplinarity and internationalization, ethical conduct and academic integrity, creative thinking, and social responsibility into Ukrainian PhD programs establishes the foundation for cultivating competitive specialists capable of effectively addressing contemporary and future global challenges (N. Derstuganova [6]; M.Korda, N.Fedchyshyn, A.Shulhai, I.Klishch, & O.Shevchuk [13]; M. Raczyńska [17]).

This determines the importance of updating or including in educational and scientific PhD training programs courses that encompass the best European practices in the methodology of scientific and educational research, ethics, as well as the formation of research and transversal competences based on European scientific values.

**Analysis of Recent Research and Publication.** Extensive policy frameworks and scholarly research support the integration of European scientific values into doctoral education. Foundational documents such as UNESCO's *Comprehensive Framework of Action on Education for Peace, Human Rights and Democracy* (1995), the *Charter of Fundamental Rights of the European Union* (2000), and the *Council of Europe Charter on Education for Democratic Citizenship and Human Rights* (2010) established freedom, tolerance, and non-discrimination as core values shaping education and research in Europe. More recent initiatives, including the *European Education Area 2025 Strategy* (European Commission, 2020 [7]), the *ERA Policy Agenda 2022–2024* (European Commission, 2021 [8]), and the *ERA Implementation Report* (European Commission, 2024 [9]), further reinforce the alignment of doctoral education with democratic citizenship, inclusivity, and innovation.

At the institutional level, the EUA Innovation Agenda 2026, EURODOC reports, and EUA-CDE frameworks emphasize interdisciplinarity, transferable competences, and mobility as strategic directions for doctoral schools [11]. The *Bologna Implementation Report* (2024) and *ministerial communiqués* (Rome, 2020 [16]; Tirana, 2024 [21]) emphasize the importance of harmonization, academic mobility, and structured doctoral training in the European Higher Education Area (EHEA). The EUA-CDE position paper *Building the Foundations of Research: A Vision for the Future of Doctoral Education in Europe* (2022) [10] stresses the role of doctoral education in addressing global crises—climate change, sustainability, and digitalization -while safeguarding fundamental academic values.

European scholarly debates reflect these policy priorities. L.Zinner, B.Lindorfer, & O'Reilly [24] analyze leadership reforms in doctoral education, while S. Cardoso [5] links the transformation of doctoral programs to societal expectations and the needs of candidates. M.Kovačević, A.Bitušková, & T.Dagen [14] demonstrate how EU policies have restructured doctoral education to enhance inclusivity and adaptability. Y.Bao, B.Kehm & Y.Ma [4] extend the discussion by comparing reforms in Europe and China, showing convergences in process-oriented and competence-based doctoral models.

In Ukraine, research mirrors these developments but under unique wartime pressures. O. Fast [12] highlights the urgent need for academic and professional support mechanisms for PhD candidates during the war, while Y. Tytska [22] examines how international cooperation and economic constraints influence the reform of Ukrainian research legislation. A. Kuzmenko [15] emphasizes the integration of European policy trends, particularly the focus on academic integrity, while N. Derstuganova [6] emphasizes the importance of

developing transversal competences as crucial to modernizing doctoral programs. M.Korda, N.Fedchyshyn, A.Shulhai, I.Klishch, & O.Shevchuk [13] contribute to this debate by documenting European traditions of PhD training and their adaptation in Ukraine. M.Raczyńska [12] links doctoral education to innovation management, highlighting its societal relevance.

The synthesis of scholarly research confirms the need for a comprehensive approach to the training of future Doctor of Philosophy candidates, combining the development of research and transferable competences, aligning with European scientific values, and facilitating the integration of Ukrainian higher education institutions into the European Higher Education Area. By aligning Ukraine's doctoral education system with European standards, the research demonstrates how fostering these values contributes to resilience, quality assurance, and societal impact, particularly under wartime conditions (O. Fast; Y. Tytska; EUA-CDE, 2022, 2025).

**Research Objective.** The primary objective of this study is to analyze the integration of European scientific values into Ukrainian doctoral programs in education, with particular emphasis on the discipline of *Ethics of Scientific Inquiry: Philosophical and Linguistic Aspects*. The study seeks to identify how key European principles - academic integrity, interdisciplinarity, open science, transversal competences, and social responsibility - are being incorporated into Ukrainian PhD education, and to explore opportunities for advancing doctoral training within the framework of the European Higher Education Area (EHEA) and the European Research Area (ERA).

**Research Tasks.** To achieve this objective, the study pursues the following tasks: to examine European policy frameworks and scholarly debates on PhD education, highlighting the principles and practices that underpin doctoral training in the EU (European Commission, 2020, 2021, 2024; Zinner et al., 2022; Cardoso, 2024); to analyze Ukrainian scholarly contributions and institutional initiatives that reflect or adapt these European scientific values (A. Kuzmenko; N.Derstuganova, Korda et al.); to assess the implementation of these values in Ukrainian doctoral curricula, using the discipline *Ethics of Scientific Inquiry* at Sumy State Pedagogical University as a case study; to identify challenges and opportunities for advancing doctoral training in Ukraine through closer integration with the EHEA and ERA, especially in contexts of crisis and transformation (O. Fast; Y. Tytska).

**Research Methods.** The methodology of this study is grounded in a combination of theoretical and empirical approaches, reflecting both European standards of doctoral research and Ukrainian institutional practices. Such a dual focus made it possible to analyze the integration of European scientific values not only at the policy and scholarly discourse levels, but also in the lived practice of doctoral education in Ukraine.

From a theoretical perspective, the research relied on a comprehensive analysis of European policy documents, including the *ERA Policy Agenda 2022–2024*, the *Bologna Implementation Report 2024*, and the Ministerial Communiqués of *Rome (2020)* and *Tirana (2024)*. These texts provided the normative and strategic background for understanding how doctoral education is envisioned within the European Higher Education Area (EHEA) and the European Research Area (ERA). Institutional reports such as *EUA-CDE Building the Foundations of Research (2022)* and *Doctoral Education in Europe Today (2022)* were examined to capture the priorities of European university associations and doctoral schools in shaping research integrity, supervision, and innovation. The analysis also drew on Ukrainian and international scholarly literature that explores doctoral education, academic integrity, competence formation, and innovation (Kuzmenko, Kovačević et al.; Zinner et al.; Derstuganova [6; 14–15; 24]). This theoretical layer ensured a broad comparative perspective, highlighting both convergences and divergences between European frameworks and Ukrainian realities.

The empirical dimension of the study was designed to capture the dynamics of doctoral training in practice. Observation of the educational process was conducted in PhD programs at Sumy State Pedagogical University (SSPU) [20], with particular focus on the educational-scientific program *Educational and Pedagogical Sciences* [18]. This allowed for a direct assessment of how values such as interdisciplinarity, ethics, and open science are integrated into teaching and supervision practices.

Additionally, a series of roundtables and focus group discussions was organized with doctoral students, supervisors, and program coordinators. These activities provided a platform for exchanging perspectives on the relevance and challenges of integrating European scientific values into curricula. To deepen the analysis, semi-structured interviews were carried out with a broader group of stakeholders, including doctoral candidates, academic staff, and program developers. The interviews focused on expectations, perceived benefits, and barriers to the effective integration of European values into doctoral training.

Documentary analysis complemented these methods through a review of self-assessment reports and accreditation materials related to doctoral programs in education at SSPU. These sources offered insights into institutional approaches to quality assurance and compliance with both national and European standards.

The study was carried out within the framework of the collective research theme "Theoretical and Methodological Foundations of Innovative Development of Education in National, European, and Global Contexts" (State Registration No. 0121U107883, 2021–2025) and in accordance with the work plan of the Center for Scientific-Educational Partnership and Networking (2024–2025). This research was also conducted

within the framework of the project “ESPERIDTA – European Studies for Supporting Polish Education and Research in Digital Transformation: Interdisciplinary Approach”, co-funded by the European Union under the Erasmus+ Jean Monnet Action (Grant Agreement No. 101172710 – ESPERIDTA – ERASMUS-JMO-2024-HEI-TCH-RSCH). Positioning the research within these institutional frameworks ensured methodological rigor, alignment with national and European priorities, and relevance to current debates on doctoral education reform.

Practical initiatives, particularly Erasmus+ Jean Monnet projects at Sumy State Pedagogical University, serve as testing grounds for integrating European values into Ukrainian doctoral programs. The Erasmus+ Jean Monnet Project “Europeanization of Doctoral Programs in Education Based on Interdisciplinary and Inclusive Approaches” (2019–2021), implemented at Sumy State Pedagogical University, as well as the ongoing Erasmus+ Jean Monnet Module “Advancement of Resilient and Responsible Doctoral Education in Ukraine” (2022–2025), illustrate concrete pathways for embedding interdisciplinarity, inclusivity, open science, and ethical principles into curricula.

**Presentation of the Main Research Findings.** To achieve the stated aim, Task 1 was implemented: to analyze European policy documents and scholarly debates on PhD education, identifying the principles and practices that constitute the foundation of doctoral training in the EU (European Commission, 2020, 2021, 2024; Zinner et al., 2022; Cardoso, 2024).

The findings of this study confirm that the integration of European scientific values into Ukrainian PhD education is not only a formal alignment with the European Higher Education Area (EHEA) and the European Research Area (ERA), but also a process of cultural and institutional transformation. The incorporation of ethics, open science, transversal competences, and social responsibility into doctoral curricula demonstrates that Ukrainian institutions are actively modernizing their programs in response to the unprecedented challenges posed by the war.

A central point of discussion is the role of open science and digitalization. European policies, particularly the ERA Policy Agenda 2022–2024 and the European Open Science Strategy, emphasize transparency, accessibility, and international collaboration as key priorities (European Commission, 2024 [9]).

The theme of resilience is equally significant. While European frameworks often emphasize sustainable development and institutional stability, the Ukrainian context highlights the need for doctoral education that can operate effectively in times of extreme disruption (O.Fast [12]; Y.Tytska[22]). Ukrainian institutions are therefore contributing a unique dimension to European debates: doctoral education as a mechanism of societal resilience and continuity. The capacity of Ukrainian universities to sustain doctoral training under wartime conditions illustrates the emergence of what may be termed a “culture of resilience in doctoral education”, characterized by adaptability, shared responsibility, and social engagement. This aligns with EUA-CDE’s vision of doctoral education as a socially embedded endeavor (EUA-CDE, 2022 [10]), while also extending this vision by illustrating how such principles are applied in crisis contexts.

The reports of the Council for Doctoral Education (EUA-CDE), particularly Report I, “Doctoral Education in Europe Today: Enhanced Structures and Practices for the European Knowledge Society,” present the current approaches used by European universities to ensure academic freedom and prepare doctoral candidates for professional careers [10; 11]. In particular, they highlight key principles aligned with the Salzburg Principles of doctoral education, including comprehensive systems of supervision and academic mentoring, support for postgraduate candidates’ mental health and well-being, and the development of competencies necessary for interdisciplinary and international research.

One of the key findings of this study is the growing incorporation of open science principles and digital practices into Ukrainian doctoral education. Digital tools—such as webinars, online doctoral networks, and virtual summer schools—are increasingly used to facilitate international collaboration and compensate for mobility restrictions caused by the war. These practices reflect broader ERA priorities on digital transformation and knowledge dissemination, while also equipping Ukrainian doctoral candidates with the competencies necessary for participation in global research communities.

The findings also confirm an increasing shift toward competence-based doctoral education in Ukraine, consistent with European trends. The integration of transversal skills, such as communication, ethical leadership, and critical reasoning, into doctoral programs reflects the recommendations of European frameworks, including the Salzburg Principles and EUA-CDE guidelines (L.Zinner, B.Lindorfer & O’Reilly [24]; N.Derstuganova [6]).

More broadly, the findings of this study highlight several vital tendencies in the evolution of Ukrainian PhD education. First, European scientific values are becoming more visible in doctoral curricula, with ethics, interdisciplinarity, and social responsibility systematically incorporated into program design. Second, open science practices, including digital platforms and grant-based research activities, are being gradually adopted, creating new opportunities for collaboration and dissemination (European Commission, 2024 [9]). Third, resilience and adaptability have emerged as defining features of Ukrainian doctoral education, as universities

and doctoral schools continue to function under wartime conditions while simultaneously striving to align with ERA and EHEA priorities (O.Fast [12]; Y.Tytska [22]).

Taken together, these findings suggest that Ukrainian PhD education is undergoing a process of modernization that brings it closer to European models while also generating original practices shaped by national challenges. By embedding academic integrity, interdisciplinarity, open science, and social responsibility into doctoral programs, Ukrainian universities not only advance their own research and educational capacity but also contribute to the broader European knowledge society.

Taken together, these findings suggest that Ukraine's integration into the EHEA and ERA should not be viewed merely as a process of convergence or imitation. Instead, it represents a dynamic interaction in which European values are embedded within a unique national context, producing new practices that can inform broader European debates. Ukrainian doctoral education, shaped by both European standards and wartime resilience, may thus serve as a model of adaptive and socially responsible doctoral training for other countries facing systemic crises.

Implementation of Task 2 – to investigate Ukrainian scholarly contributions and institutional initiatives that reflect or adapt those mentioned above European scientific values [6;13; 15]. The focus on competence-based doctoral training further situates Ukraine within broader European reforms. The development of transversal competences—critical thinking, ethical reasoning, intercultural communication, and leadership—aligns with European recommendations, such as the Salzburg Principles and the Bologna Implementation Report [6; 24]. Ukrainian doctoral curricula, particularly in disciplines such as Ethics of Scientific Inquiry, show that competence-based education can be adapted to national conditions while maintaining compliance with European quality assurance standards. This approach not only enhances the employability of doctoral graduates in both academic and non-academic careers [3; 5] but also strengthens their capacity to contribute to societal development through innovation and civic engagement.

Another central theme is the resilience of Ukrainian doctoral education under wartime conditions. Despite large-scale disruptions to infrastructure and heightened social and economic instability, institutions such as Sumy State Pedagogical University (SSPU) continue to deliver doctoral training, adapt curricula, and provide support mechanisms for PhD candidates. Findings from roundtable discussions and interviews revealed that doctoral students perceive ethical supervision, institutional responsibility, and peer networks as critical for maintaining their academic trajectories in times of crisis (O.Fast [12]). This demonstrates the emergence of a new culture of doctoral education in Ukraine—one that emphasizes shared responsibility, adaptability, and societal relevance (Y.Tytska [22]). Such resilience aligns with European calls for socially engaged doctoral education (EUA-CDE, 2022 [10]) and highlights Ukraine's distinctive contribution to the evolving landscape of the EHEA and ERA.

These experiences confirm that Ukraine is actively contributing to the European Research Area (ERA) and the European Higher Education Area (EHEA) while simultaneously adapting to the challenges of wartime (see Table 1).

Table 1

Comparative Overview: European vs. Ukrainian Contributions to PhD Education

Dimension / Value	European Frameworks & Initiatives	Ukrainian Scholarship & Practice
<b>Academic Integrity &amp; Ethics</b>	<i>European Code of Research Integrity</i> (ALLEA, 2017); Salzburg Principles; ERA policy agenda (EC, 2021, 2024).	Kuzmenko (2024) – academic integrity in PhD training; Fast (2024) – ethical supervision under wartime conditions.
<b>Interdisciplinarity &amp; Internationalization</b>	EUA Innovation Agenda (2026). Lisbon Recognition Convention; Bologna Implementation Report (2024).	Tytska (2024) – international cooperation and legal harmonization; Erasmus+ Jean Monnet projects (2019–2025).
<b>Generic (Transversal) Competences</b>	EUA-CDE (2022, 2025) – transferable skills; the Bologna Process focuses on non-academic careers.	Derstuganova (2024) – generic competences in Ukraine; Korda et al. (2023) – transversal skills in doctoral programs.
<b>Innovation &amp; Societal Impact</b>	Cardoso (2024) – doctoral education as societal driver; Alves et al. (2023) – socio-economic relevance of PhD training.	Raczyńska (2024) – innovation performance link; national <i>Education 4.0: Ukrainian Sunrise</i> (Erasmus+, 2022).
<b>Quality Assurance &amp; Institutional Reform</b>	Bologna Implementation Report (2024); EUA-CDE (2022) – structured doctoral schools; ministerial communiqués (Rome 2020, Tirana 2024).	Fast (2024) – QA under wartime stress; Erasmus+ initiatives – doctoral program reform and resilience-building.
<b>Open Science &amp; Digitalization</b>	ERA Implementation Report (EC, 2024); European Open Science Agenda; digital transformation strategies in doctoral schools.	Erasmus+ Jean Monnet projects – embedding open science in curricula; Education 4.0 concept (2022) – digital doctoral training.
<b>Resilience &amp; Social Responsibility</b>	EUA-CDE (2022) – mental health, well-being, and supervision reforms in Europe; EURODOC advocacy for doctoral candidates.	Fast (2024) – supporting doctoral candidates in wartime; Tytska (2024) – adapting doctoral legislation under crises.

Implementation of Task 3 – to assess the implementation of these values in Ukrainian doctoral curricula, using the course Ethics of Scientific Inquiry at Sumy State Pedagogical University as an example.

The analysis of doctoral training at Sumy State Pedagogical University (SSPU) demonstrated that Ukrainian higher education institutions are increasingly aligning their programs with European scientific values, particularly in terms of ethics, interdisciplinarity, and social responsibility. [20] The educational-scientific program Educational and Pedagogical Sciences (2023) has been designed to prepare doctoral candidates for creative, autonomous, and responsible professional engagement, while fostering transversal competences such as critical thinking, academic integrity, and intercultural communication (EUA-CDE, 2022 [10]; Korda et al. [13]).

The program focuses on the development of general competences that shape methodological culture: the ability to design comprehensive research projects grounded in a systematic scientific worldview; the capacity to generate and interpret new knowledge in accordance with national and international standards; proficiency in research culture and modern information and communication technologies; and the ability to analyze methodological and epistemological issues within the field and related disciplines.

A particularly illustrative example is the discipline “Ethics of Scientific Inquiry: Philosophical and Linguistic Aspects”, which integrates philosophical, linguistic, and methodological perspectives to embed European values into doctoral education. The course aims to cultivate the values of academic culture, specifically the norms of academic integrity, knowledge of national and European practices in academic ethics, and the researcher’s linguistic and communicative competence, as well as the culture of academic communication. The course is oriented toward developing academic literacy (cognitive-discursive skills for processing and producing academic texts across genres), ethical research practices, and readiness for effective dialogic interaction during the presentation of research results in interdisciplinary and/or international settings, based on subject–subject relations [18; 19].

In 2022–2023, the discipline was structured around two main areas: (1) research ethics and (2) the linguistic aspects of academic discourse and the researcher’s language culture. The first area covers philosophical principles of integrity, moral dilemmas, international and national frameworks of academic integrity, and mechanisms of preventing violations (Topics 1.1–1.5, Section 1). The second area focuses on linguistic aspects of academic discourse and language culture, particularly the development of terminological, textual, and communicative competences through the study of scientific style genres, mastery of citation culture, etiquette of academic writing, ethical use of sources, and preparation of scientific presentations (Topics 2.1–2.5, Section 2). Through case analyses, discussions, and practical assignments, doctoral candidates acquire principles of transparency, respect for intellectual property, and responsible data use [18].

The case study of the Ethics of Scientific Inquiry course demonstrates how Ukrainian programs are incorporating ethics, open science, transversal competences, and social responsibility by introducing doctoral students to responsible data use, digital research tools, and online collaboration formats. This adaptation is both pragmatic, helping to overcome wartime restrictions on mobility, and strategic, as it prepares Ukrainian doctoral candidates for full participation in global research networks.

The course also introduces doctoral candidates to the European Open Science agenda, emphasizing transparency, responsible data management, and accessibility of research outcomes (ALLEA, 2017 [2]; European Commission, 2024 [9]). In particular, the focus on linguistic competencies within the course strengthens doctoral candidates’ ability to participate in interdisciplinary and multilingual research environments. These developments reflect the European understanding of PhD education not merely as specialized training, but as holistic preparation for diverse academic and non-academic careers (Cardoso[5]; Alves et al. [3]).

Implementation of Task 4 – to identify the challenges and opportunities for the development of doctoral training in Ukraine through closer integration into the EHEA and ERA, particularly under conditions of crisis and transformation (O.Fast [12]; Y.Tytska [22]). The analysis of Ukrainian doctoral education within the European context reveals that the reform process is unfolding under highly complex circumstances, where systemic challenges are closely intertwined with new opportunities. The first group of challenges is determined by wartime disruptions, which have caused significant damage to infrastructure, reduced mobility, and led to severe financial instability. Many doctoral candidates experience interrupted research trajectories and limited access to laboratories, archives, or international cooperation, which significantly narrows their academic prospects (O.Fast [12]). Another pressing issue is institutional fragmentation: while some universities have successfully integrated the principles of the European Higher Education Area (EHEA) and the European Research Area (ERA), others remain constrained by insufficient resources and uneven quality standards. This asymmetry hinders the overall coherence of the Ukrainian doctoral training system and limits its competitiveness in the European context (Y.Tytska [22]). Legislative and policy gaps further complicate the situation, as national regulations only partially correspond to European recommendations. Problems remain in the areas of quality assurance, transparency of doctoral assessment, and the integration of transversal competences into curricula (A.Kuzmenko [15]). In addition, the war has intensified the process of academic

migration, leading to a brain drain that deprives Ukrainian universities of experienced supervisors and promising young researchers, thereby weakening institutional capacity and the long-term sustainability of the country's research potential.

At the same time, the crisis context has created a unique set of opportunities. European integration has become not only a political priority but also a strategic anchor for modernizing doctoral training. The implementation of the Salzburg Principles, the European Charter for Researchers, and the European Code of Research Integrity is enabling Ukrainian institutions to enhance transparency, strengthen ethical standards, and increase the social responsibility of doctoral education. Another promising dimension is the accelerated digitalization of doctoral training. Wartime restrictions have compelled Ukrainian universities to adopt online platforms, webinars, digital doctoral networks, and virtual summer schools, enabling them to maintain international cooperation despite limited mobility. These practices align with the ERA Policy Agenda 2022–2024 and the principles of the European Open Science strategy, while also equipping doctoral candidates with skills relevant to global academic communities. Ultimately, resilience itself has emerged as an opportunity: the capacity of Ukrainian higher education institutions to sustain doctoral training under extreme conditions demonstrates a new cultural model of doctoral education, one based on adaptability, solidarity, and societal engagement. This model not only corresponds to European debates on socially embedded doctoral education (EUA-CDE, 2022 [10]), but also enriches them by providing a unique perspective on how such principles can be implemented in times of crisis and transformation.

The implementation of all four research tasks demonstrates that integrating European scientific values into Ukrainian doctoral education is a multidimensional process that combines policy alignment, institutional initiatives, curricular reform, and resilience in crisis conditions. The analysis of European documents and scholarly debates revealed the normative and conceptual foundations of PhD training in the EU. At the same time, the study of Ukrainian academic contributions and institutional practices confirmed the gradual adaptation of these principles within national contexts. The case study of the Ethics of Scientific Inquiry course at Sumy State Pedagogical University provided concrete evidence of how ethics, open science, transversal competences, and academic integrity are being embedded into doctoral curricula. Finally, the examination of challenges and opportunities highlighted that, despite wartime disruptions, Ukraine is actively strengthening its contribution to the European Higher Education Area (EHEA) and the European Research Area (ERA). Taken together, these findings confirm that doctoral education in Ukraine is evolving not only as a mechanism for professional and academic preparation, but also as a strategic instrument of resilience, innovation, and societal development, aligning with European standards and values.

**Conclusions.** The integration of European scientific values into Ukrainian doctoral programs represents a critical step for strengthening the country's academic potential and accelerating its successful integration into the European Higher Education Area (EHEA) and the European Research Area (ERA). The findings of this study illustrate that Ukrainian institutions are not only adapting European frameworks but also generating original practices that reflect national conditions, particularly the realities of wartime.

First, a **new culture of doctoral education** is emerging in Ukraine—a culture characterized by shared responsibility, adaptability, and continuous responsiveness to societal needs. Doctoral education is no longer viewed merely as advanced academic training but as a strategic instrument for shaping the future of European science and education. Investing in doctoral programs thus means investing in Europe's collective ability to meet contemporary and future challenges.

Second, the study demonstrates that **open science and digitalization** are increasingly incorporated into Ukrainian doctoral education, enabling transparency, collaboration, and accessibility of research outcomes. These practices not only align with ERA priorities but also help Ukrainian doctoral candidates remain integrated into global networks despite restrictions on mobility and infrastructure damage (European Commission, 2024).

Third, **resilience in wartime contexts** has become a defining feature of Ukrainian doctoral education. The ability of institutions to continue doctoral training under crisis conditions confirms the importance of academic integrity, ethical supervision, and institutional support as mechanisms for maintaining the continuity of research and education. This experience enriches European debates on doctoral education by demonstrating how resilience and social responsibility can be effectively integrated into practice.

Finally, the integration of **competence-based approaches** ensures that Ukrainian doctoral graduates are prepared for diverse career paths within and beyond academia. By fostering transversal competences—critical reasoning, intercultural communication, and ethical leadership – doctoral programs not only respond to European recommendations but also enhance the employability and societal relevance of PhD holders.

In conclusion, the Ukrainian case illustrates that integrating European scientific values into doctoral education is both a process of modernization and a pathway toward resilience. While European frameworks provide the guiding principles, Ukrainian doctoral schools are actively contextualizing them, thereby contributing new insights into how doctoral education can function under conditions of geopolitical uncertainty, economic instability, and social fragmentation. This mutual exchange enriches both Ukraine and

Europe, ensuring that doctoral education continues to drive research excellence, foster ethical responsibility, and promote societal transformation.

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