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<https://orcid.org/0000-0003-4297-6872>

<https://orcid.org/0000-0002-1160-8850>

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M. H. Shlenova
E. A. Darmofal

COOPERATIVE LEARNING AS A PEDAGOGICAL APPROACH TO IMPROVING THE QUALIFICATIONS OF SCIENTIFIC AND PEDAGOGICAL STAFF IN HIGHER EDUCATION INSTITUTIONS

The article explores the modernization of professional development for academic staff in higher education through the lens of cooperative learning. The study's relevance is driven by global educational transformations, digitalization, and a shift toward student-centered paradigms, which necessitate a radical departure from traditional, passive qualification models. Instead, the authors substantiate cooperative learning as a holistic pedagogical approach that transforms professional growth into a continuous, socially situated process.

Drawing on social constructivism, the study reveals the potential of cooperation to overcome professional isolation. It identifies five key structural elements essential for effective practice: positive interdependence, individual and group accountability, promotive face-to-face interaction, interpersonal skills, and group processing. The systematic application of these elements in postgraduate education fosters a professional "community of practice" in which knowledge is co-constructed rather than simply transferred.

Particular attention is paid to practical implementation mechanisms within the university environment, such as reciprocal peer observation, "critical friend" groups, joint interdisciplinary projects, and the adaptation of "Lesson Study" technology. These formats enhance methodological competence while developing "soft skills," emotional intelligence, and critical reflection. Furthermore, the article explores integrating research methodologies, digitalization, and gamification to stimulate professional interaction and creative inquiry.

The authors present a multidimensional model of professional interaction that synthesizes individual actualization, group work, joint construction, and reflective generalization. The article concludes that integrating cooperative learning democratizes academic relationships, encourages collective responsibility for educational quality, and ensures the sustainable improvement of higher education.

Keywords: cooperative learning; professional development; scientific and pedagogical staff; higher education; qualification improvement; digitalization; soft skills; quality of education.



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Шленьова М. Г., Дармофал Е. А. Кооперативне навчання як педагогічний підхід до підвищення кваліфікації науково-педагогічних працівників закладів вищої освіти. У статті розглядаються питання модернізації системи професійного розвитку науково-педагогічних працівників закладів вищої освіти через призму кооперативного навчання. Актуальність дослідження зумовлена глобальними трансформаціями в освіті, цифровізацією та переходом до студентоцентризованих парадигм, що вимагає радикального відходу від традиційних пасивних моделей підвищення кваліфікації. Натомість автори обґрунтовують кооперативне навчання як цілісний педагогічний підхід, який перетворює професійне зростання на безперервний, соціально зумовлений процес.

Спираючись на теорію соціального конструктивізму, дослідження розкриває потенціал кооперації у подоланні професійної ізоляції. Визначено п'ять ключових структурних елементів, необхідних для ефективної практики: позитивна взаємозалежність, індивідуальна та групова відповідальність, стимулююча взаємодія віч-на-віч, міжособистісні навички та групове обговорення. Систематичне застосування цих елементів у післядипломній освіті сприяє формуванню професійної «спільноти практики», де знання конструюються спільно, а не просто передаються.

Особливу увагу приділено практичним механізмам імплементації в університетське середовище, таким як: взаємне відвідування занять, формування груп «критичних друзів», спільні міждисциплінарні проекти та адаптація технології «Lesson Study». Ці формати підвищують методичну компетентність, одночасно розвиваючи «м'які навички», емоційний інтелект та здатність до критичної рефлексії. Крім того, у статті розглядається інтеграція дослідницьких методологій, цифровізації та гейміфікації для стимулювання професійної взаємодії та творчого пошуку.

Автори представляють багатовимірну модель професійної взаємодії, що синтезує індивідуальну актуалізацію, групову роботу, спільне конструювання та рефлексивне узагальнення. Стаття підсумовує, що інтеграція кооперативного навчання демократизує академічні стосунки, стимулює колективну відповідальність за якість освіти та забезпечує сталий розвиток вищої школи.

Ключові слова: кооперативне навчання; професійна освіта; науково-педагогічні працівники; вища освіта; підвищення кваліфікації, цифровізація, м'які навички, якість освіти

Introduction. In the contemporary landscape of higher education, cooperative learning is increasingly emerging not merely as an instructional strategy for organizing educational activities but as a holistic pedagogical approach capable of significantly influencing the professional development of academic staff. The relevance of this



approach is driven by profound transformations in university education, including the evolving role of educators, the growing complexity of faculty responsibilities, heightened quality standards, and the imperative to continuously update pedagogical, methodological, and digital competencies. Under these circumstances, professional development is shifting from episodic, formal events to a continuous, reflective, and socially situated process of professional growth.

Traditional models of professional development, which rely primarily on the transmission of static knowledge through lectures, seminars, or short courses, are proving increasingly inadequate in addressing contemporary challenges. These models often fail to account for the diversity of faculty members' professional experiences, their individual educational needs, curricular nuances, and the specific context of the higher education institution. In this regard, cooperative learning offers fundamentally distinct opportunities, grounded in the principles of collaborative knowledge construction, mutual learning, and collective reflection on professional practice.

The theoretical foundations of cooperative learning, as developed in the works of D. Johnson et al. (Johnson & et al., 1994), C. Kessler (Kessler, 1992), J. Dewey (Dewey, 2007), L. Vygotsky (Vygotsky, 1978) allow cooperation to be viewed not merely as a secondary element of the educational process, but as its core principle. According to these approaches, effective cooperative learning is predicated on positive interdependence, individual accountability, face-to-face promotive interaction, the development of interpersonal and small-group skills, and group processing. Applying these principles to the professional development of academic staff creates an educational environment in which teachers are not merely passive recipients of information but equal participants in a professional dialogue.

According to V. Haluzak et al. (Haluzak & et al., 2024), a distinctive feature of cooperative learning within the context of teacher professional development is its intrinsic alignment with the andragogical principles of adult education. We concur with the scholarly view that academic staff, who possess established professional experience, personal pedagogical beliefs, and entrenched teaching models, require professional development formats that validate rather than negate their expertise. Instead, these formats should mobilize this expertise and integrate it into a shared educational process. Consequently, cooperative learning creates an environment in which each participant's professional experience serves as a resource for the group, transforming the learning process into one of mutual enrichment. Within the cooperative framework, the professional development of academic staff evolves into a form of collaborative inquiry aimed at comprehending pedagogical practice, analyzing



educational innovations, and identifying effective solutions to contemporary didactic challenges. This is particularly crucial in the context of implementing competency-based, student-centered, research-oriented, and blended learning models, which demand that educators not only master new methods but also critically reimagine their role in the educational process.

According to M. Baida (Baida, 2015), cooperative learning facilitates the formation of professional communities among academic staff, fostering the informal exchange of expertise, the collective discussion of pedagogical challenges, and the co-development of novel approaches to student learning. Such communities play a vital role in sustaining educators' professional identity, particularly during periods of intense systemic reform in higher education. Interaction within cooperative groups mitigates the professional isolation often inherent in teaching and cultivates a culture of collegiality.

A crucial dimension of cooperative learning in professional development is the cultivation of reflective skills among academic staff. Through the collaborative analysis of pedagogical scenarios, the discussion of experimental outcomes, and the peer evaluation of professional actions, educators acquire the capacity to critically reflect on their own practice. This process enables them to identify strengths and areas for improvement, thereby defining trajectories for further professional growth. V. Haluziak & O. Makodai (Haluziak & Makodai, 2024) argue that reflection conducted within a cooperative format is inherently more profound, as it synthesizes individual and collective levels of reflection.

The potential of cooperative learning for cultivating the communication and social skills of academic staff warrants particular attention. V. Krasnov (Krasnov, 2013) aptly observes that group interaction enhances professional communication, argumentation, active listening, and constructive conflict-resolution skills. In our opinion, these skills are extremely important in the modern university environment, where teachers increasingly act as facilitators of the learning process, moderators of discussions, and mentors to student teams.

In the context of the digital transformation of higher education, cooperative learning is taking on new forms, combining with the possibilities of online and blended learning. Yu. Holovna (Holovna, 2023) emphasizes that the use of digital platforms, shared online spaces, and communication tools allows us to expand the boundaries of cooperative interaction by involving teachers from different higher education institutions in professional development. This contributes to the formation of inter-institutional professional networks and increases the mobility of pedagogical ideas.



Within the cooperative learning framework, integrating research methodologies into professional development is particularly salient for academic staff. Collaborative inquiry into pedagogical practice enables educators not merely to acquire new methodologies but to critically examine their own teaching trajectories, adapting them to meet contemporary educational exigencies. In this context, it is pertinent to invoke J. Dewey's (Dewey, 2003) concept of inquiry-based learning, which frames learning as an organic process rooted in the problematization of experience and the active pursuit of solutions.

A crucial condition for the success of cooperative learning is the readiness of scientific and pedagogical staff to operate within a digital environment. As demonstrated by the analysis of e-modules (Shlenova & Darmofal, 2025), the use of structured electronic resources facilitates deeper knowledge acquisition and improved learning performance. This enables participants in cooperative groups to feel more confident during discussions and the implementation of educational innovations.

Applying this rationale to the professional development of academic staff fosters a research-oriented approach to their pedagogical practice. When integrated with inquiry-based methods, cooperative learning facilitates collaborative analysis of educational scenarios, identification of pedagogical challenges, formulation of hypotheses about potential solutions, and collective testing of innovations. This developmental format effectively bridges the theory-practice gap often prevalent in traditional training courses. Rather than merely acquiring theoretical knowledge, educators contextualize these models within their own experience, debate their adaptability to specific educational settings, and jointly evaluate implementation outcomes.

In the contemporary landscape, incorporating gamification elements into cooperative training for academic staff is particularly significant. As S. Deterding & et al. (Deterding & et al., 2011) note, gamification entails applying game design elements and mechanics in non-game contexts to enhance motivation and engagement. When combined with cooperative learning, gamification becomes a potent tool for stimulating professional interaction, fostering an environment conducive to safe experimentation, healthy competition, and creative inquiry.

The quality assurance of higher education is directly dependent on the information literacy of scientific and pedagogical staff. The integration of online courses into the educational process unifies approaches to developing digital skills (Shlenova, 2025), aligning with the principles of cooperative learning that emphasize



harmonizing pedagogical strategies and collective responsibility for learning outcomes.

To enhance academic qualifications, gamified cooperative formats, such as pedagogical simulations and team competitions, facilitate a collective search for effective strategies to resolve real-world educational challenges. These formats must focus on achieving shared goals rather than interpersonal competition to remain aligned with the fundamental principles of cooperation. Collaborative discussions regarding emerging technologies, such as digital assessment tools and active learning methods, mitigate professional anxiety and foster a genuine readiness to integrate innovations into teaching practice. Such collective support ensures the conscious implementation of new methodologies rather than their mere nominal adoption.

Consequently, cooperative learning serves as a critical factor in higher education quality assurance by harmonizing pedagogical approaches and increasing collective responsibility for learning outcomes. This shared vision is particularly vital during program accreditation, where faculty readiness for innovation is a key evaluation criterion. However, successful integration requires specific organizational conditions, including dedicated time, leadership support, and the formal recognition of cooperative outcomes for tenure and promotion. Without such institutional backing, these practices risk remaining fragmented and dependent solely on individual initiative.

Aim and tasks. The objective of this article is to provide a scientifically grounded framework for the transition from individualized, fragmented forms of training to a systematic, cooperative model of professional development for academic staff. This model focuses on the collective co-creation of pedagogical solutions, the reflective renewal of professional practice, and the sustainable enhancement of higher education quality.

Research methods. The methodological foundation of this research integrates several systemic and pedagogical approaches designed to transition from individualized training to a systematic, cooperative model of professional development. This framework combines systemic, andragogical, and activity-based approaches to align learning with institutional goals while addressing the unique needs and professional experiences of adult educators. Grounded in social constructivism, the research identifies five essential elements for effective practice: positive interdependence, individual and group accountability, face-to-face interaction that promotes learning, the development of interpersonal skills, and group processing. The methodology explores practical implementation mechanisms such as reciprocal peer observation, "critical friend" groups, joint interdisciplinary projects, and the adaptation



of "Lesson Study" technology. To facilitate this, a generalized four-stage interaction model was developed, encompassing individual actualization, cooperative interaction, joint construction, and reflective generalization. Furthermore, the methodology incorporates digital platforms to expand inter-institutional networks and uses gamification elements, such as simulations and role-playing, to stimulate creative inquiry and professional engagement.

Research results. In the contemporary university environment, cooperative learning for academic staff functions as a vital mechanism to bridge the gap between institutional quality assurance requirements and the practical realities of educators' professional activities. The continuous evolution of higher education standards and the focus on learning outcomes have exacerbated the professional workload, making cooperative learning a vital support mechanism that mitigates the risks of burnout and the fragmentation of pedagogical practice. The research identifies diverse organizational formats for implementation, ranging from short-term cooperative sessions aimed at addressing specific pedagogical challenges to long-term collaborative structures analogous to professional communities of practice. Within these communities, educators coalesce around shared professional interests or academic programs, ensuring the continuity and depth of professional growth.

The study successfully developed a generalized four-stage interaction model for a cooperative session that synthesizes professional interaction, starting with individual actualization, in which the subject engages in self-reflection to become aware of professional requests. This is followed by cooperative interaction, involving the exchange of experiences in small groups and joint construction, where participants act as co-authors of professional products, such as coordinated decisions or models. The process concludes with reflective generalization, allowing the subject to evaluate the results and professional changes achieved.

This transition to a systematic cooperative model is grounded in a synthesis of systemic, andragogical, and activity-based approaches, ensuring that knowledge acquires an applied and contextualized character while aligning with institutional goals. Furthermore, the study emphasizes that integrating gamified cooperative formats, such as pedagogical simulations, collaborative educational quests, and team-based projects, facilitates a collective search for effective strategies to resolve real-world educational challenges. These gamified activities are designed to focus on shared goals rather than interpersonal competition, remaining aligned with fundamental cooperative principles. The effectiveness of the cooperative process depends largely on adherence to the principles of positive interdependence and individual accountability,



in which each participant recognizes their specific contribution to the collective outcome. Ultimately, the practical implementation of these strategies fosters a supportive educational environment of trust and openness that extends into a holistic set of organizational and pedagogical conditions.

To illustrate the potential for methodologically organizing cooperative learning within university professional development, it is pertinent to present a generalized model of a cooperative session. This model integrates individual preparation, group interaction, and the reflective synthesis of outcomes.

Table 1.

Generalized model of a cooperative professional development session

<i>Stage of professional interaction</i>	<i>Content of activities</i>	<i>Role of participants</i>	<i>Expected outcome</i>
Individual actualization	Analysis of personal teaching experience, formulation of problems	Subject of self-reflection	Awareness of professional needs
Cooperative interaction	Work in small groups, exchange of experience, joint analysis	Participant in cooperative activity	A shared understanding of the issue
Joint construction	Development of coordinated decisions, models, and recommendations	Co-author of a professional product	Methodological or organizational practices
Reflective generalization	Evaluation of the process and results of cooperation	Reflective subject	Awareness of professional changes

The effectiveness of cooperative learning hinges on positive interdependence and individual accountability, requiring participants to recognize their personal contribution to a collective outcome. This process demands methodological support from a facilitator focused on orchestrating productive interaction rather than transmitting knowledge.

Furthermore, a paradigm shift in assessment is required, moving away from quantifying content toward reflective, portfolio-based approaches. These methods better capture professional growth trajectories and the transfer of skills into practice. Successful integration also requires cultivating pedagogical readiness through a graduated transition from individualized to collective practice, addressing the psychological barriers inherent in traditional academic silos.



The organization of professional micro-groups represents a critical methodological step, where composition should prioritize shared pedagogical objectives and a mutual readiness for innovation over formal departmental affiliations. Within these groups, role fluidity is essential to prevent the entrenchment of rigid structures and to foster reflective thinking and pedagogical flexibility.

The methodology utilizes problem-based scenarios as "entry points" for interaction, focusing on authentic challenges such as designing academic programs, defining learning outcomes, or responding to accreditation feedback. Such discourse ensures high motivation and facilitates the practical transfer of learning outcomes. It is advisable to integrate these cooperative modules into the annual faculty development cycle, with a focus on interdisciplinary challenges and institutional objectives. These modules ensure sustainable professional change by alternating through phases of individual preparation, collaborative interaction, and collective reflection.

Thus, integrating cooperative learning is a multidimensional process synthesizing organizational and axiological components. Its success depends on a coherent pedagogical logic that develops professional agency and fosters a culture of collective responsibility for educational quality.

Discussion. In contemporary universities, professional development cannot be viewed merely as a formalized process for updating knowledge or meeting regulatory requirements. Rather, the substantive challenges of teaching stem from the need to respond flexibly to shifts in education policy, the digital transformation of learning, and the expanding role of internal quality assurance systems. Cooperative learning serves as a conceptual approach to organizing this development by integrating individual and collective trajectories into a unified institutional space.

The transition to this model necessitates a paradigm shift in professional training: from individual acquisition to collaborative knowledge construction, and from vertical information transfer to horizontal interaction. This approach effectively bridges the gap between institutional quality requirements and the practical realities of educators' professional activity. By fostering a professional "community of practice," cooperative learning mitigates the risks of burnout and professional isolation inherent in individualized teaching.

The implementation of such strategies is particularly vital during program accreditation, where a shared vision of learning goals and collective responsibility for outcomes are key evaluation criteria. To facilitate this, the study recommends adopting operational formats such as:



- *Reciprocal Peer Observation and "Critical Friend" Groups*: Mechanisms that allow for collaborative discussion and mutual enrichment of pedagogical practice.
- *A Four-Stage Interaction Model*: A structured framework encompassing individual actualization, cooperative interaction, joint construction, and reflective generalization.
- *Gamification and Digital Integration*: The use of team competitions and digital platforms to reduce professional anxiety and stimulate creative inquiry.

Crucially, successful integration is predicated on specific organizational conditions, including leadership support and the formal recognition of cooperative outcomes for tenure and promotion. Furthermore, the transition necessitates a shift in evaluation toward reflective, portfolio-based approaches that document professional growth trajectories rather than simple content acquisition. Ultimately, the effectiveness of this logic is determined by its ability to develop academic staff's professional agency and cultivate a culture of collective responsibility for educational quality.

Conclusions. The study concludes that integrating cooperative learning into higher education leads to systematic improvements in both professional development and institutional quality. This approach democratizes academic relationships by transforming hierarchical models into those based on partnership and mutual trust. Collaborative interaction effectively overcomes the professional isolation often inherent in teaching and cultivates a sustainable culture of collegiality. Furthermore, cooperative development encourages a shared vision regarding learning goals and increases collective pedagogical responsibility, which is critical during the accreditation of educational programs. These formats enhance methodological competence while simultaneously developing emotional intelligence, critical reflection, and essential soft skills such as constructive conflict resolution. The effectiveness of the cooperative model is heavily predicated on institutional backing, including the formal recognition of cooperative outcomes by leadership and the allocation of dedicated time for collective activities. Finally, the study highlights the need for a paradigm shift in evaluation, toward reflective, portfolio-based approaches that document the trajectory of professional growth rather than simple content acquisition.

ЛІТЕРАТУРА

Байда М. В. Використання класичних технологій кооперативного навчання на змішаних та перевернутих заняттях у процесі фахової підготовки вчителів-філологів. *Вісник Житомирського державного університету імені Івана Франка. Педагогічні науки*. 2015. Вип. 4. С. 83–87.



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Інформація про авторів:

Шленьова Марина Геннадіївна:

ORCID: <https://orcid.org/0000-0003-4297-6872>;

кандидат філологічних наук, доцент, в. о. завідувача кафедри української мови та мовної комунікації, Національний аерокосмічний університет «Харківський авіаційний інститут», вул. Вадима Манька, 17, 61070, e-mail: m.shleneva@khai.edu

Дармофал Елеонора Анатоліївна:

ORCID: <https://orcid.org/0000-0002-1160-8850>;

кандидат технічних наук, доцент кафедри екології та техногенної безпеки, директор Центру якості освіти, ліцензування та акредитації, член-кореспондент Інженерної академії, Національний аерокосмічний університет «Харківський авіаційний інститут», вул. Вадима Манька, 17, 61070, e-mail: elyadarmofal@gmail.com

Information about the authors:

Shlenova Maryna Hennadiivna:

ORCID: <https://orcid.org/0000-0003-4297-6872>;

PhD in Philology, Associate Professor, Acting Head of the Department of Ukrainian Language and Language Communication, National Aerospace University "Kharkiv Aviation Institute", 17 Vadym Manko St., 61070, e-mail: m.shleneva@khai.edu

Darmofal Eleonora Anatoliivna:

ORCID: <https://orcid.org/0000-0002-1160-8850>;

Candidate of Technical Sciences, Associate Professor at the Department of Ecology and Technogenic Safety, Director of the Center for Educational Quality, Licensing and Accreditation, Corresponding Member of the Engineering Academy of Ukraine, National Aerospace University "Kharkiv Aviation Institute", 17 Vadym Manko St., 61070, e-mail: elyadarmofal@gmail.com

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