

EUROPEAN TRENDS FOR RETHINKING TEACHER PROFESSIONAL LEARNING IN UKRAINE

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Annotation. *The chapter provides a comprehensive, qualitative comparative analysis that examines the urgent need to reshape the architecture of teacher professional learning in Ukraine by aligning it with contemporary European educational trajectories. The author evaluates the profound shift occurring across Europe away from traditional, episodic, and course-based in-service training toward a holistic model of career-long, evidence-informed, and collaborative professional learning ecosystems. This policy transition is driven by common European pressures including severe teacher shortages, an aging workforce, rapid digital acceleration, and new commitments to sustainability, but it intersects with a massive educational crisis in Ukraine caused by full-scale war, extensive infrastructure destruction, and widespread population displacement. The text frames Ukraine not as an outsider to the European educational discourse, but as an active participant testing these advanced frameworks under extreme, high-stress conditions.*

The analytical core of the text is structured around several interconnected dimensions of modern teacher development. First, it explores the evolution of learning ecosystems, referencing European initiatives like the Teacher Academy to demonstrate that online professional development is most effective when it moves away from passive lecture consumption toward collaborative, design-based peer exchange. Second, inclusion is repositioned from a specialized, peripheral training topic to a transversal organizing principle for all educational professionals. In the context of Ukraine, inclusion is expanded to encompass trauma-informed pedagogy, social-emotional learning, and flexible strategies to support highly heterogeneous

classrooms containing internally displaced children, returnees, and traumatized learners. Third, the chapter critically analyses Professional Learning Communities and distributed leadership. Synthesizing recent Scandinavian and Irish research, the author notes that regular teacher collaboration only alters classroom practice when it is driven by structured, evidence-aware inquiry rather than superficial method-sharing.

Methodologically, the study employs an analytical, qualitative comparative review, coding peer-reviewed European literature alongside empirical sectoral datasets from global agencies to extract practical recommendations. The author concludes that teacher wellbeing must be treated as a structural and infrastructural component of educational recovery rather than an optional afterthought, linking teacher emotional stability directly to student achievement. Ultimately, the chapter offers a bidirectional perspective: while Ukraine requires European competence frameworks and quality standards to build a robust post-war education system, its unprecedented adaptability, successful state-NGO partnerships, and rapid crisis-response mechanisms provide invaluable models of educational resilience back to the European Union.

Keywords: teacher professional learning, educational ecosystems, wartime educational recovery, digital pedagogy, inclusive education, teacher wellbeing, artificial intelligence literacy, professional learning communities, quality assurance, European educational integration, Ukraine

우크라이나 교원 전문성 학습의 재구조화를 위한 유럽의 동향 분석

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국문초록. 본 연구는 우크라이나 교원 전문성 개발 체제를 현대 유럽 교육의 변화 방향에 부합하도록 재구조화할 필요성을 질적

비교분석을 통해 고찰하였다. 유럽에서는 기존의 단기·과정 중심 현직교사 연수에서 벗어나 경력 전 주기에 걸친 증거기반의 협력적 전문학습 생태계로 전환되고 있으며, 이러한 변화는 교원 부족, 고령화, 디지털 전환, 지속가능성 요구 등 구조적 요인에 의해 촉진되고 있다. 동시에 우크라이나는 전면전으로 인한 교육 인프라 붕괴와 대규모 인구 이동이라는 위기 상황 속에서 이러한 변화를 경험하고 있다.

본 연구는 우크라이나를 유럽 교육 담론의 수동적 수용자가 아닌 위기 상황 속에서 새로운 교육 모델을 실험하는 행위자로 설정하였다. 분석은 교원학습 생태계, 포용교육, 전문적학습공동체와 분산적 리더십의 세 가지 차원에서 이루어졌다. 유럽연합 Teacher Academy 사례 분석 결과, 온라인 연수는 협력적·참여적 학습 구조로 설계될 때 효과성이 높게 나타났다. 또한 포용교육은 트라우마 기반 교육과 사회정서학습을 포함하는 확장된 개념으로 재정립되었으며, 전문적학습공동체는 단순한 경험 공유가 아닌 구조화된 탐구와 성찰 중심으로 운영될 때 실질적 변화로 이어짐이 확인되었다.

연구 방법으로는 유럽의 학술문헌과 국제기구 자료를 활용한 질적 비교분석을 적용하였다. 연구 결과, 교원 웰빙은 교육 회복의 핵심 기반 요소이며 학생 성취와 직접적으로 연계되는 것으로 나타났다. 결론적으로 우크라이나는 유럽의 교육 품질 기준을 수용하는 동시에, 위기 대응과 교육 회복탄력성 측면에서 중요한 정책적 시사점을 제공한다.

주제어: 교원 전문성 개발, 교육생태계, 포용교육, 전문적학습공동체, 교원 웰빙, 유럽 교육정책, 우크라이나

Introduction. Teacher professional learning in Europe has entered a period of profound redefinition. Since 2022, the debate has moved beyond the older logic of episodic, course-based in-service training toward a broader conception of career-long, evidence-informed, collaborative, and context-sensitive professional learning. This shift has been driven by several converging pressures:

- teacher shortages and an ageing workforce across the European Union;
- the digital acceleration triggered by the pandemic and then transformed by the rise of generative AI;
- growing policy commitments to inclusive education, multicultural classrooms, and sustainability education;

– and, in Ukraine’s case, the additional stressors of full-scale war, large-scale displacement, infrastructure destruction, and chronic uncertainty.

In that sense, Ukraine is not outside the European conversation about teacher learning; rather, it is participating in that conversation under extreme conditions that make reform both harder and more urgent. European research published since 2022 consistently suggests that resilient education systems are those that treat teachers not as passive recipients of training hours but as active agents in knowledge-rich professional communities, supported by mentoring, inquiry, digital platforms, psychosocial care, and coherent governance. (Hertz et al., 2022; Brennan & Gorman, 2023; Grimm, 2024; De Vroey et al., 2023).

The urgency of rethinking teacher professional learning is reinforced by the changing condition of the profession across Europe. A 2026 European Commission analysis based largely on OECD TALIS 2024 data underlined a pronounced generational imbalance: around 40% of teachers in the EU are aged 50 or over, while only about 8% are under 30 (OECD, 2025). The same report noted that teachers feel less prepared for emerging demands such as teaching in multicultural classrooms, supporting students’ social-emotional development, and integrating digital tools effectively; it also found that only about one in three teachers use AI, with even fewer having received related training. These trends suggest that European teacher learning policy must respond simultaneously to retention, renewal, new competencies, and the redesign of professional support structures. The issue is not simply whether teachers attend courses, but whether systems can support sustainable professional growth under conditions of complexity (European Commission, 2026).

For Ukraine, these European trends intersect with a much more severe educational crisis. UNESCO’s 2025 overview of support for learning continuity in Ukraine reported that more than 3,400 educational institutions had been damaged and over 400 completely destroyed, while the country still had around 6.4 million school-age learners (UNESCO, 2025). UNESCO also reported that over 50,000 devices had been distributed to teachers, more than 8,500 devices to children unable to attend in-person education, and nearly 77,400 teachers had enrolled in its digital teacher course, with a certification rate of 42%; the same initiative

reached over 29,500 teachers through a professional community of practice (UNESCO, 2024). UNICEF added that, by September 2025, 4.6 million children in Ukraine continued to face educational barriers, more than one third of students were not fully learning in classrooms at the end of the 2024/25 school year, 11% relied exclusively on online education, and more than 10% of educational infrastructure had been damaged or destroyed between February 2022 and December 2024 (UNICEF, 2025). These data indicate that teacher professional learning in Ukraine can no longer be discussed as a peripheral reform issue: it is a core mechanism of educational continuity, resilience, recovery, and long-term European integration.

At the same time, Ukraine's education system has demonstrated remarkable adaptive capacity, especially through digitalisation, civil society partnerships, and rapid learning under wartime conditions. UNESCO and the Global Partnership for Education reported in 2026 that nearly 69% of Ukrainian teachers remained satisfied with their career choice, despite severe systemic strains (Global Partnership for Education, 2026). Yet the same study revealed deep structural problems: 22% of teachers were working without having been awarded a teacher qualification upon completion of their education; 51% of school principals considered lack of pedagogical training a risk factor for poor job performance; teachers' average salaries were more than 30% lower than the national average; 73% of educators named low salaries as a major source of disillusionment; and 25% of teachers reported additional work as private tutors (Global Partnership for Education, 2026). These data show why revisiting professional learning in Ukraine cannot be limited to course content. It must address the entire professional pathway, from pre-service education and induction to continuing professional learning, leadership, status, workload, wellbeing, and career sustainability.

The analytical premise of the article is therefore straightforward: European trends offer not a ready-made model for Ukraine, but a set of powerful conceptual and practical resources for rethinking teacher professional learning under conditions of crisis, recovery, and Europeanisation. The most important of these resources include collaborative inquiry, online and blended professional learning, competence-based frameworks for inclusion and digital pedagogy,

school-embedded professional learning communities, stronger induction and mentoring, wellbeing-centered support, and more coherent quality assurance across diverse providers (Hertz et al., 2022).

Ukraine has already begun to experiment with many of these components, often under wartime pressure. The challenge now is to transform adaptive responses into a coherent, evidence-informed national architecture of teacher professional learning aligned with European trends but responsive to Ukrainian realities (Elkin et al., 2023; UNESCO & Teacher Task Force, 2025). The future of teacher professional learning in Ukraine lies in a strategic synthesis of European trends and Ukrainian needs. Such a synthesis requires at least five shifts from:

- 1) training events to learning ecosystems;
- 2) individual compliance to collaborative inquiry;
- 3) fragmented provision to quality-assured pathways;
- 4) narrow subject upgrading to integrated competence development;
- 5) survival-oriented emergency support to long-term professional renewal.

To substantiate this claim, the article first reviews recent academic literature by European researchers along with current policy and statistical evidence, then explains the methodology of the analytical synthesis, and finally discusses what these European trends imply for rethinking teacher professional learning in Ukraine.

Literature Review.

From continuing professional development to professional learning ecosystems

One of the clearest tendencies in recent European pedagogical education is the move away from viewing teacher development as a sequence of isolated continuing professional development (CPD) events and toward understanding it as professional learning embedded in networks, communities, schools, and professional identities. Hertz et al. analysing the European Commission's Teacher Academy initiative, argued that online teacher professional development becomes effective not when it simply digitises lectures, but when it supports collaborative participation, peer exchange, structured reflection, and usable pedagogical design (Hertz et al, 2022). Similarly, Stavermann's research synthesis of 115 studies on online teacher professional development found predominantly positive effects on teachers' competencies and teaching

practice, particularly when online learning included synchronous phases, collaborative activities, and active support structures (Stavermann, 2025). Together, these studies suggest that the central policy issue is not “online versus face-to-face” but whether professional learning environments enable interaction, transfer, reflection, and contextual relevance.

This shift is important because traditional CPD often treats teachers as individuals who accumulate training hours rather than as professionals who develop through inquiry in relation to practice, colleagues, and institutional conditions. European researchers increasingly frame teacher learning as ecological and relational. In the Teacher Academy model examined by Hertz, online learning worked best when teachers were not passive recipients of content but active participants in a collaborative, design-based process (Hertz et al., 2022). Stavermann’s synthesis reinforces this conclusion by showing that participation and perceived value depend heavily on opportunities for exchange and instructor support, not only on the accessibility of digital delivery (Stavermann, 2025). What emerges from this literature is a broader European principle: professional learning is most powerful when it is social, sustained, and connected to authentic problems of teaching.

For Ukraine, this approach is especially relevant because wartime disruption has made both online access and peer support indispensable. Professional learning cannot rely on centralised workshops alone when teachers are displaced, overloaded, or teaching in hybrid and unstable conditions. UNESCO’s Ukrainian digital teacher initiative, which reached nearly 77,400 participants and a 42% certification rate, illustrates that large-scale online provision is feasible (UNESCO, 2025). But the same initiative’s growth of a 29,500-member community of practice shows something deeper: teachers need spaces for exchange, not just content delivery (UNESCO, 2024).

Inclusion as a core axis of professional learning

A second major trend in European teacher training is the repositioning of inclusion as a central, not peripheral, dimension of teacher professional learning. De Vroey, Lecheval, and Symeonidou, working through the European Agency for Special Needs and Inclusive Education and the University of Cyprus, argued that teacher professional learning for inclusion should no longer target teachers alone as isolated actors. Their work on the Profile for Inclusive Teacher Professional Learning proposed

a competence framework for all education professionals involved in inclusive education, highlighting shared values, collaborative roles, and system-level coherence (De Vroey et al., 2023). This marks an important shift from teacher training as personal skill acquisition toward professional learning as coordinated work across roles and institutions.

Brennan and Gorman's (2023) qualitative cross-case study in Ireland adds an implementation perspective to this agenda. Exploring both a school-based professional learning community and an online learning community for pre-service teachers, they found that transformative learning for inclusion depended on critical dialogue, the public sharing of work, and externally facilitated safe spaces. Their findings show that inclusion-oriented learning is not achieved through information transfer alone. It requires teachers to rethink beliefs, efficacy, and classroom practice through sustained collaborative inquiry (Brennan & Gorman, 2023). In other words, inclusion is not simply another module within an existing CPD schedule; it changes the very form that professional learning must take.

This trend is highly relevant to Ukraine, where wartime schooling has intensified heterogeneity in every possible sense: displacement, trauma exposure, interrupted learning, language diversity in host-country contexts, disability, digital inequality, and differentiated access to in-person schooling. A UNESCO policy paper on Ukrainian teacher training institutions highlighted a number of structural gaps in teacher professional development provision, including shortages of qualified staff, limited quality assurance, and the need to strengthen digital solutions and communities of practice (UNESCO/Teacher Task Force, 2025). These conditions make inclusive professional learning especially urgent. The European research implies that Ukraine should design professional learning not only around subject knowledge or digital tools but around the capacity to teach diverse learners collaboratively and adaptively in crisis and post-crisis contexts.

Moreover, inclusion has social-emotional and ethical dimensions, not just cognitive or pedagogical ones. The Ukrainian case analysed by Elkin et al. shows that civil society organisations such as EdCamp Ukraine have been essential in promoting social, emotional, and ethical learning for teachers during wartime. Their study demonstrated that teacher professional development in Ukraine increasingly depends on

partnerships between government and civil society capable of addressing teachers' emotional competence and soft skills (Elkin et al., 2023). This argument aligns with the broader European studies on inclusion, which increasingly treats collaboration, wellbeing, and emotional competence as integral components of professional learning (Brennan & Gorman, 2023).

Professional learning communities, teacher leadership, and the school as a learning organisation

A third strong trend in recent European research concerns school-embedded professional learning communities (PLCs) and the need to understand leadership inside them more precisely. Grimm's study of Swedish PLCs found that teacher-led learning conversations do not automatically produce deep change in teaching. When teacher leaders focus mainly on sharing concrete methods and affirming experience, professional learning remains relatively shallow. Deeper change required teacher leaders who could analyse teaching systematically, challenge assumptions, and build a habit of inquiry among colleagues (Grimm, 2024). This is an important corrective to celebratory discourse around PLCs. European scholarship no longer assumes that collaboration is always transformative; instead, it asks what kind of collaboration changes practice.

Brennan and Gorman's work reinforces this point. Their study suggested that the power of learning communities lies not in meeting regularly per se, but in the quality of dialogue, the public examination of practice, and external facilitation that can create trust while still challenging routine thinking (Brennan & Gorman, 2023). Across both studies, a pattern becomes clear: effective professional learning communities are structured, evidence-aware, and inquiry-driven. They are not simply collegial spaces of mutual encouragement; they are spaces in which professional knowledge is tested, interpreted, and transformed.

For Ukraine, such findings are particularly valuable because teachers have often relied on informal peer exchange to cope with emergency transitions to remote and hybrid learning. Those informal practices are important, but European evidence suggests that informal exchange needs stronger pedagogical structuring if it is to support long-term improvement. The danger in high-pressure systems is that professional learning communities become spaces merely for survival advice: how to organise online lessons, how to manage alerts, how to

improvise resources, without generating deeper pedagogical reflection. A rethought Ukrainian model would need to preserve the solidarity and responsiveness of emergency peer support while progressively building more inquiry-oriented school and interschool learning communities.

PLCs are also closely linked to the broader European agenda of distributed leadership. Grimm showed that teacher leaders need more than institutional recognition; they need explicit preparation to facilitate adult learning and pedagogical inquiry (Grimm, 2024). This approach has major policy implications: if school-based professional learning is to be central, then systems must invest not only in teachers' learning but in the learning of those who lead teacher learning. Such point is echoed indirectly in the UNESCO/GPE 2026 findings for Ukraine, where professional development of school principals and strengthening educational leadership were identified as important areas for further reform (Global Partnership for Education, 2026). Therefore, teacher professional learning in Ukraine cannot be renewed without simultaneously developing leadership for professional learning.

Digital competence, online professional development, and AI-era teacher learning

Digitalisation remains one of the most visible and rapidly evolving dimensions of European teacher professional learning. Recent research has moved beyond the question of whether teachers use technology to the more specific question of what forms of professional learning build meaningful digital pedagogy. Göttl et al. studying pre-service teachers at the University of Vienna, found that future teachers recognised the importance of digital competencies but still perceived significant gaps in teacher education programmes. Crucially, the authors showed that self-organised learning alone was insufficient: student teachers wanted collaboration and guidance to reach a professional level of competence for teaching digital skills (Göttl et al., 2024). This finding matters because it challenges simplistic assumptions that digitally savvy generations do not need explicit professional support.

Godsk and Nielsen's systematic review of online teacher professional development for digital competencies in higher education similarly identified a wide range of factors affecting programme quality, including institutional context, programme design, delivery, and educator support. Their study found sixteen factors shaping effectiveness, demonstrating

that digital professional learning is systemic rather than purely technical (Godsk & Nielsen, 2024). Stavermann's synthesis adds further evidence at school level: online and blended teacher development can improve competencies and teaching practice, but only when participation is supported by synchronous interaction, collaborative tasks, and effective facilitation (Stavermann, 2025). Together, these studies support a European consensus that digital competence cannot be reduced to operating tools; it requires pedagogically oriented, socially structured professional learning.

This consensus intersects with current policy concerns in the EU. The European Commission's report on the teaching profession found that teachers still felt insufficiently prepared to integrate digital tools and that AI use remained limited, with only around one third of teachers using AI and even fewer trained in it (European Commission, 2026). This policy signal is amplified by academic research such as Göttl et al., which documents persistent curriculum gaps even in advanced European universities (Göttl et al., 2024). In effect, Europe is entering an AI-mediated educational era with professional learning systems that are still catching up.

In Ukraine, digital competence has shifted from innovation agenda to educational necessity. Study on teachers' readiness to use digital tools during the war found that wartime conditions intensified teachers' reliance on ICT and highlighted significant needs concerning digital resources, support, and self-assessed competence (Ovcharuk, 2023). UNESCO's initiatives provide complementary statistics: in early 2024, more than 48,000 teachers had enrolled in the digital teacher course and 98% of surveyed participants considered it beneficial (UNESCO, 2024); by 2025, enrolment had grown to nearly 77,400 (UNESCO, 2025). These findings show that digital professional learning can be scaled rapidly in Ukraine, but the European studies suggest that the next step is qualitative: moving from emergency platform use toward professionally integrated digital pedagogy, assessment, inclusion, and AI literacy.

Wellbeing, social-emotional competence, and retention

Another significant trend in European discussions is the increasing recognition that teacher professional learning must address wellbeing, not merely instructional technique. While teacher wellbeing research has expanded globally, the European policy conversation has sharpened

because of worsening shortages and retention risks. The 2026 European Commission report highlighted growing pressure from administrative workload, classroom discipline, and student behaviour (European Commission, 2026), while the 2025 TALIS-based reporting cited in Education International indicated that one in five teachers under 30 planned to leave the profession within five years (Education International, 2025). It also suggested that collaborative professional learning, teacher autonomy, and supportive leadership are associated with higher wellbeing and job satisfaction. These findings imply that professional learning matters not only for improving teaching quality but also for sustaining the profession itself.

Elkin et al. showed that wartime professional development in Ukraine has had to include social, emotional, and ethical learning as support for self-help and for student support (Elkin et al., 2023). UNESCO and GPE further reported that more than 60,000 education professionals in Ukraine had been trained in psychosocial support and school safety (Global Partnership for Education, 2026). UNICEF's reporting on education in wartime added that frontline conditions were linked to intense emotional strain among young children, with 83% showing signs of emotional distress and delayed development in some areas. Teachers operating in such environments clearly require professional learning that includes trauma-informed practice, psychosocial support, and emotionally sustainable forms of professional collaboration (UNICEF, 2025).

The literature also suggests that wellbeing should be seen as infrastructural rather than optional. If professional learning is conceived narrowly as adding new competences to already overburdened staff, it may accelerate fatigue rather than support improvement. By contrast, if professional learning includes peer support, reflective space, emotionally intelligent leadership, and workload-sensitive design, it can become part of retention strategy. This is particularly important in Ukraine because low salaries, multiple jobs, and wartime stress all undermine the profession's attractiveness. The UNESCO/GPE study's finding that teachers' average salaries were more than 30% below the national average, and that 73% of educators viewed low salaries as a major source of disillusionment, underscores that professional learning reform must connect to broader workforce policy (Global Partnership for Education, 2026).

Sustainability, multicultural responsiveness, and new curricular missions

A further European trend concerns the enlargement of teacher professional learning around sustainability, cultural diversity, and social justice. In the Eurydice report on learning for sustainability documented that many European systems now integrate sustainability competences into curricula and increasingly support teachers through competence frameworks, professional development opportunities, and whole-school approaches (Eurydice, 2024). Although this report reflects a major policy trajectory that academic research is also beginning to map. Rachel Bowden's study of a European teacher education project not only found meaningful links between linguistically and culturally responsive pedagogy and education for sustainable futures, but also highlighted the need for sustained support for teachers and school communities if such connections are to become practically significant (Bowden, 2025).

The significance of this trend for Ukraine lies in the fact that reconstruction will not be only infrastructural; it will also be civic, ecological, and democratic. Teachers need preparation not simply to restore pre-war schooling, but to educate for resilience, sustainability, multilingual realities, European citizenship, and critical media awareness. European experts suggest that these goals cannot be effectively pursued through fragmented thematic "add-ons." They require integrated professional learning that connects curriculum, pedagogy, community engagement, and school development (Eurydice, 2024).

This is also linked to multicultural and cross-border realities. Many Ukrainian children have experienced schooling abroad, multilingual environments, and hybrid educational pathways. The European Commission's report noted that teachers across the EU feel underprepared for multicultural classrooms (European Commission, 2026). For Ukrainian teachers, this challenge is immediate: classrooms now include internally displaced children, returnees, children who have experienced host-country schooling, and learners whose educational continuity has been fractured. European trends in inclusive and culturally responsive professional learning therefore have direct relevance to Ukrainian recovery.

Methodology. The author uses an analytical, qualitative comparative review methodology. Its purpose is not to conduct a full systematic

review in the strict bibliometric sense, but to synthesise current European academic research and current statistical-policy evidence in order to derive implications for the redesign of teacher professional learning in Ukraine. The methodological choice reflects the nature of the research question. Because the topic lies at the intersection of teacher education, educational policy, wartime adaptation, and European integration, it requires a review strategy capable of combining scholarly argument with live sectoral data (European Union, 2024).

The corpus for the literature review was selected according to three main criteria. First, academic sources had to be peer-reviewed and published no earlier than 2022. Second, they had to be authored by European researchers or based in European academic or policy-research institutions. Third, they had to address one or more of the following themes: teacher professional learning; online and blended professional development; inclusion; professional learning communities; digital competence; teacher induction or leadership; teacher wellbeing; sustainability; or Ukrainian teacher education under crisis conditions. On this basis, the academic core of the analysis included work by European experts in the field of teacher training and pedagogical education. A second layer of sources consisted of current European and international policy reports and datasets used to provide statistical grounding and system-level context. These included the European Commission's reports on the teaching profession in the EU, Eurydice's reports on learning for sustainability, European Parliament briefing materials on teacher shortages and professional development, UNESCO reporting on education continuity and digital teacher support in Ukraine, UNICEF updates on educational barriers and learning conditions, and GPE/UNESCO reports on the teaching profession in Ukraine. These sources were treated as complementary evidence for current structural conditions.

The analysis proceeded in two steps. In the first step, the selected academic literature was coded thematically around recurrent concepts and design principles. These included: collaborative versus transmissive learning; online/blended design; inclusion and competence frameworks; teacher leadership and PLCs; digital competence and AI; social-emotional learning and wellbeing; sustainability and multicultural responsiveness; and the relationship between policy architecture and professional learning practice. In the second step, these themes were compared with current

Ukrainian evidence, especially in relation to institutional fragmentation, digital adaptation, teacher shortages, psychosocial needs, and the role of civil society and international support. The comparison aimed to surface both convergences, areas where Ukraine already reflects European trends and gaps, areas where Ukrainian professional learning remains under-institutionalised or unevenly supported.

This methodology has several strengths: it allows the article to remain tightly aligned with recent scholarship while also incorporating rapidly changing educational realities that peer-reviewed literature alone cannot yet fully capture. This is particularly important in wartime contexts, where official and international datasets may move faster than journal publication cycles. At the same time, the methodology has clear limitations as the article does not claim exhaustive coverage of all European publications on teacher professional learning, nor does it provide a statistical meta-analysis of effect sizes across interventions. Nevertheless, because the selected sources represent high-relevance peer-reviewed work and authoritative current reporting, the analysis provides a robust basis for drawing policy-relevant conclusions.

A further methodological point concerns the meaning of “European trends.” In this article, the term does not imply full uniformity across European countries. On the contrary, the literature reviewed here often highlights the diversity of national traditions and institutional arrangements. The purpose of the analysis is therefore not to identify a single European model, but to extract recurrent directions of change that appear across recent research and policy documents. These directions of change can then be tested against Ukrainian conditions. In other words, the article treats Europe as a field of evolving ideas and practices rather than a homogeneous benchmark. This is methodologically appropriate because professional learning is strongly shaped by local governance, workload patterns, teacher cultures, and crisis contexts.

Results and Discussion. The first major implication of the literature is that Ukraine should move more decisively from a provider-centred model of teacher upskilling to a teacher-centred professional learning ecosystem. European researches repeatedly show that isolated training sessions, even when numerous, are insufficient for meaningful change. Effective professional learning is embedded, iterative, collaborative, and connected to real teaching problems. Hertz et al. (2022) demonstrated this through

online professional development design; Brennan and Gorman (2023) showed it in inclusion-oriented learning communities; Grimm (2024) showed it in school-based PLCs; and Stavermann (2025) demonstrated it across a broad synthesis of online and blended programmes. The combined implication is that professional learning must be organised as a living system that links teachers, schools, leaders, digital spaces, and external expertise.

Ukraine already exhibits some early features of such an ecosystem, but they remain unevenly institutionalised. On the one hand, the wartime education response has produced large-scale online learning opportunities, communities of practice, and NGO-state partnerships. On the other hand, UNESCO's policy paper on Ukrainian teacher training institutions identified overlapping responsibilities, shortages of qualified staff, limited external quality assurance, and gaps in course content (UNESCO/Teacher Task Force, 2025). These are typical symptoms of a fragmented ecosystem. Professional learning exists, sometimes at scale, but the system lacks enough coherence to guarantee consistent quality, progression, and strategic alignment. The main European lesson for Ukraine is therefore not only pedagogical but organisational one and it lies in the following statement: professional learning reform requires governance reform.

Such governance reform should focus on pathways rather than events. Teachers need clear developmental routes that connect pre-service preparation, induction, early-career support, role diversification, leadership preparation, and later-career renewal. The UNESCO/GPE study on the Ukrainian teaching profession suggests that current pathways remain too fragile and too weakly connected to workforce conditions. When 22% of teachers work without teacher qualification completion, when principals see pedagogical underpreparation as a significant risk, and when private tutoring becomes a secondary income strategy for one quarter of teachers, the problem is not only insufficient training. It is the absence of a coherent professional architecture that values and supports continuing development across the whole career (UNESCO/GPE, 2026). European trends hier suggest that building such architecture should become a national priority.

A second major result of the analysis concerns digitalisation. Ukraine has already achieved something exceptional under wartime conditions

as it has maintained continuity of instruction for millions of learners and scaled professional learning in digital pedagogy at a pace many stable systems would struggle to match. UNESCO's data on enrolment in digital teacher training, device distribution, and communities of practice confirm this (UNESCO, 2024). However, European research indicates that emergency digital competence and mature digital pedagogy are not the same thing. European studies point to the need for the next phase of development. Göttl et al. found that future teachers want structured support, not just self-learning, in order to teach digital competencies professionally (Göttl et al., 2024). Godsk and Nielsen identified multiple institutional and design factors behind effective online professional development (Godsk & Nielsen, 2024). Stavermann showed that online professional learning is most effective when collaboration, synchrony, and facilitator support are built in (Stavermann, 2025). These studies suggest that the next step for Ukraine should be the professionalisation of digital teacher learning around four linked domains: pedagogical design for blended/hybrid instruction; digital assessment and feedback; inclusive digital learning for diverse and vulnerable groups; and critical/ethical digital competence, including AI literacy.

Such shift matters because digitalisation in Ukraine is now a permanent structural condition, not a temporary emergency response. UNICEF's data showed that at the end of the 2024/25 school year more than one third of students were not fully learning in classrooms and 11% relied exclusively on online education. Even when more schools regain stable in-person operation, interrupted schooling, damaged infrastructure, displacement, and cross-border mobility will continue to make blended arrangements necessary (UNICEF, 2025).

A European-oriented strategy for Ukraine should therefore define digital professional learning as part of core teacher professionalism rather than as a niche specialisation. AI is part of this agenda. The European Commission report found that only around one third of teachers in the EU use AI and that related training remains limited (European Commission, 2026). If comparatively well-resourced systems are underprepared, Ukraine risks widening future gaps if AI and data-informed teaching are not integrated into teacher learning soon. Yet integration must be pedagogically careful. Teachers need support not only in using AI tools, but in understanding assessment integrity, bias, privacy, critical media

literacy, and meaningful pedagogical orchestration. Ukraine's advantage is that it does not have to build these modules from scratch: it can adapt emerging European frameworks and combine them with the country's already strong culture of rapid digital adaptation.

A third result of the analysis is that inclusion should be treated as a transversal organising principle of Ukrainian teacher professional learning. European scholarship shows that inclusion is no longer conceptualised narrowly as special education expertise. Rather, it is understood as the capacity of educational systems and professionals to teach heterogeneous learners collaboratively and equitably. De Vroey et al. (2023) translated this into a broad competence framework for all education professionals, while Brennan and Gorman (2023) showed how collaborative inquiry is needed to convert inclusive aspirations into teacher belief and practice change.

In Ukraine, inclusive professional learning is urgent for reasons that are at once pedagogical, ethical, and geopolitical. War has produced large numbers of displaced learners, learners with trauma exposure, students with interrupted or fragmented schooling, children learning partly abroad, children in shelters or hybrid formats, and groups with very uneven access to educational resources. UNICEF's 2024 and 2025 reports show subject-level learning disparities, regional inequalities, and the benefits of returning to in-person learning where possible (UNICEF, 2024; UNICEF, 2025). These realities require teachers to differentiate instruction, rebuild motivation, recognise emotional burden, and collaborate across institutional boundaries. Inclusion, in the Ukrainian case, therefore includes trauma-sensitive pedagogy, flexible pathways, differentiated assessment, and stronger social-emotional support, and not only disability-related adaptation. The current architecture of professional learning in Ukraine is not yet fully configured for this level of inclusive complexity. UNESCO's paper on teacher training institutions indicates resource and quality challenges (UNESCO, 2025), while Elkin et al. show that civil society has stepped into this gap through social, emotional, and ethical learning programmes (Elkin et al., 2023). The European trend suggests that such initiatives should be mainstreamed rather than left as parallel innovations. A Ukrainian reform agenda could do this by embedding inclusion criteria into accreditation of professional development providers, by using competence frameworks that cover all

education professionals, and by supporting school-based inquiry into the needs of diverse learners.

Most importantly, inclusion-oriented professional learning must be collaborative. European studies repeatedly show that teachers change inclusive practice most effectively when they are able to discuss cases, share work publicly, test assumptions, and receive feedback inside facilitated communities. In Ukraine, where teachers often face emotionally difficult situations and contradictory expectations, collaborative inclusion learning could function both as professional support and as a form of collective resilience. This is especially significant because inclusion and wellbeing are mutually reinforcing: teachers who are emotionally supported are better able to support diverse pupils; teachers isolated in overloaded, under-resourced settings are less likely to sustain inclusive practice.

A fourth result concerns the organisational location of professional learning. European trends indicate that much of the most consequential teacher learning happens in and around the school rather than solely through external courses. Yet the literature also warns that merely creating collaborative structures is insufficient; those structures must be pedagogically purposeful (LOOP Consortium, 2023). Grimm's (2024) research on PLCs is especially useful here because it distinguishes between superficial method-sharing and deeper inquiry-oriented learning. Ukraine's challenge is to create school-based and interschool professional learning structures that do not collapse into administrative meetings, improvised troubleshooting, or routine exchange. This need is especially acute in relation to early-career teachers.

Europe-wide, teacher retention concerns have increased, and recent TALIS-related reporting shows that a substantial share of young teachers are considering leaving (OECD, 2025). If Ukraine wants to renew the profession under conditions of demographic stress, salary pressures, migration, and wartime uncertainty, induction and mentoring must become central pillars of professional learning policy. Novices need not only formal entry procedures but sustained guided participation in professional communities. European work on mentoring and induction increasingly sees beginning teachers as active learners within an ecology of practice rather than as mere recipients of advice. For Ukraine, stronger induction would have several benefits. First, it could reduce attrition

among underpaid and under-supported entrants. Second, it could help bridge the current gap identified by UNESCO/GPE, where principals perceive insufficient pedagogical preparation as a risk factor. Third, it could connect pre-service education more effectively with real school conditions, including hybrid teaching, social-emotional demands, and community-facing responsibilities. Fourth, it could create structured opportunities for experienced teachers to take on meaningful leadership in professional learning, thereby enhancing status and distributed expertise inside schools (LOOP Consortium, 2023).

To work well, however, induction must be resourced. If mentors are overburdened, untrained, or unsupported, mentoring becomes symbolic rather than developmental. European trends imply that mentoring expertise itself should be recognised as a field of professional learning (Grimm, 2024). This points toward a two-level strategy for Ukraine: prepare mentors and teacher leaders explicitly for learning facilitation, and integrate induction within wider school-based professional learning communities. Such a design would combine the strengths of PLCs, leadership development, and early-career support into a more coherent whole.

A fifth result of the analysis is that teacher wellbeing should be treated as a structural component of professional learning reform. In both European and Ukrainian evidence, poor wellbeing is linked to attrition, lower satisfaction, and reduced capacity to respond to emerging challenges. The European Commission report emphasised workload, discipline challenges, and insufficient preparedness for new demands (European Commission, 2026). Education International's TALIS-related reporting added that collaborative professional learning, autonomy, and supportive leadership are positively associated with wellbeing and job satisfaction (Education International, 2025). These findings suggest that professional learning systems can either intensify stress or mitigate it, depending on design.

In Ukraine, the stakes are even higher. Teachers are operating under war, repeated alarms, disrupted schooling, low pay, and often additional employment. At the same time, they are expected to provide students with emotional stability and continuity. Elkin et al. (2023) demonstrated the importance of social, emotional, and ethical learning within teacher development. GPE also reported that over 60,000 education professionals

had been trained in psychosocial support and school safety (Global Partnership for Education, 2026). These efforts are vital, but the European experts suggest that wellbeing should not be confined to crisis-response modules, instead it should influence the whole design of professional learning: its pacing, workload assumptions, collaborative structures, leadership culture, and emotional safety. For example, school-based professional learning can be planned as a protected reflective space rather than as an extra burden added to teachers' schedules. Online learning can be flexibly paced but still socially connected, reducing isolation without demanding constant attendance. Leadership development can include relational competence and adult learning facilitation, not just administrative management. National policy can also signal that professional learning is part of working time and professional status rather than unpaid voluntary labour. These measures would align with both European trends and Ukrainian needs.

Importantly, wellbeing-centered professional learning also supports student outcomes. UNICEF's educational quality assessment in Ukraine reported that teaching quality remained directly linked to student achievement, even under wartime conditions (UNICEF, 2024). This means that supporting teachers is not a separate welfare issue but an instructional policy issue. If teachers are exhausted, emotionally overloaded, and professionally isolated, no curriculum reform will compensate. From this perspective, building a humane system of professional learning is part of Ukraine's academic recovery strategy.

A sixth result concerns curriculum missions that will shape Ukraine's recovery and European integration. European policy and research indicate that teacher professional learning is increasingly expected to support sustainability, multilingual and multicultural responsiveness, and democratic citizenship. Eurydice's report shows that many European systems are embedding sustainability-related competences in curricula and increasingly supporting teachers and schools in this domain (Eurydice, 2024). Bowden's study suggests that culturally and linguistically responsive pedagogy and education for sustainable futures can be productively connected, but such integration requires sustained support, not isolated projects (Bowden, 2025). For Ukraine, these themes are not peripheral as reconstruction will demand environmental resilience, local rebuilding, European civic orientation, critical media competence,

and social cohesion across communities marked by war experience, displacement, and unequal access to resources. Teachers therefore need professional learning that can help them connect subject teaching with sustainability, community rebuilding, diversity, and citizenship. This is particularly important for students whose schooling has crossed borders or been interrupted by displacement. Their educational experience already embodies the entanglement of identity, mobility, language, and future-oriented resilience.

Yet integrating these themes successfully requires more than developing new modules. The European evidence suggests that whole-school approaches are more productive than fragmented topic add-ons. In professional learning terms, this means linking teacher learning to school development planning, local projects, interdisciplinary collaboration, and reflective practice (Bowden, 2025). Ukraine could adapt this by encouraging teacher professional learning projects around community resilience, environmental reconstruction, or intercultural school inclusion, supported by regional providers and validated through quality assurance mechanisms. Such an approach would connect European priorities with concrete local needs.

A seventh and perhaps most systemically important result is that rethinking teacher professional learning in Ukraine requires stronger quality assurance and a clearer division of roles across providers. The UNESCO policy paper on Ukrainian teacher training institutions identified the absence of external quality assurance mechanisms for teacher professional development delivery, overlapping responsibilities among institutions, shortages of qualified staff, and gaps in course provision (UNESCO, 2025). These are not merely administrative issues. They affect the credibility, consistency, and developmental potential of the entire professional learning system. If providers vary greatly in quality, if teachers cannot easily judge the relevance of offerings, or if participation is driven mainly by formal credit requirements, then even innovative programmes will have limited system-wide effect.

European research suggests a possible way forward, based on the assumption, that competence frameworks for inclusion, digital pedagogy, teacher leadership, and sustainability can serve as organising devices that help align provider offerings with national priorities. But competence frameworks must be connected to quality assurance, evaluation, and

professional pathways. In other words, Ukraine needs not only multiple providers as universities, institutes, NGOs, and international partners all have roles to play, but also a shared architecture that defines standards of relevance, evidence use, collaboration, and learner support. This is especially important under current conditions, where rapid donor- and project-based innovation can produce valuable experimentation but also fragmentation.

A balanced solution would avoid over-centralisation while improving transparency and coherence. External quality assurance could evaluate not only content but also design principles that recent European research identifies as effective: collaboration, sustained engagement, contextualisation, facilitator support, and transfer to practice. Teachers could be offered clearer developmental pathways and recognition mechanisms linked to role progression, mentoring, leadership, or specialist competence areas. Over time, such a system would help shift professional learning from compliance culture to trust-based, evidence-informed professional growth.

The comparative analysis should not be understood in one direction only. Ukraine is not simply a recipient of European ideas; it is also generating practices that are highly relevant for Europe. Avsheniuk and Seminikhyna's study of teacher perspectives reveals the value of listening to teachers' lived experience in shaping future policy (Avsheniuk and Seminikhyna, 2025). The country's rapid scaling of digital teacher support, its integration of civil society into teacher professional development, and its insistence on continuity of learning under extreme conditions demonstrate forms of systemic adaptability that many European countries can learn from. Europe's own workforce pressures, digital transitions, and inclusion challenges make these lessons highly transferable.

In this sense, rethinking teacher professional learning in Ukraine should be framed not as "catching up" with Europe, but as co-constructing a more resilient European educational future. Ukraine's wartime reality exposes weaknesses that exist more quietly elsewhere: dependence on stable infrastructure, the fragility of teacher wellbeing, the limits of fragmented provider landscapes, and the need for robust digital learning systems. By addressing these issues through reform, Ukraine has the potential not only to align with European trends but also to reshape them.

Conclusions. The evidence reviewed in this article shows that current European trends in teacher professional learning are converging around a powerful redefinition of the field. Teacher learning is increasingly conceptualised as collaborative rather than transmissive, school- and network-embedded rather than episodic, competence-based rather than purely hour-based, digitally mediated but pedagogically structured, and attentive to inclusion, wellbeing, leadership, and sustainability (Binder, 2024). Recent academic work by European researchers demonstrates that effective professional learning depends on design features such as critical dialogue, contextual relevance, facilitated inquiry, collective reflection, and institutional coherence. Current European statistics reinforce the urgency of these reforms by highlighting ageing workforces, preparedness gaps, limited AI training, and growing retention risks.

For Ukraine, these trends offer a strategic framework for rethinking teacher professional learning at a moment when education is simultaneously under attack and under transformation. The country's realities, among others: damaged infrastructure, hybrid learning, displacement, emotional trauma, labour market pressures, and reliance on digital continuity, make professional learning central to educational survival and recovery. At the same time, Ukraine has already demonstrated remarkable strengths, concerning large-scale digital professional development, active communities of practice, innovative civil society partnerships, and sustained teacher commitment despite severe adversity. These strengths mean that rethinking teacher learning in Ukraine can build on real capacities rather than starting from zero.

The key conclusion of the analysis is that Ukraine should move from a fragmented, provider-heavy, credit-oriented approach toward a coherent professional learning ecosystem. Such an ecosystem would include:

- 1) quality-assured online and blended learning with strong collaborative design;
- 2) school-based professional learning communities led by trained facilitators and teacher leaders;
- 3) a stronger induction and mentoring infrastructure for early-career teachers;
- 4) inclusion and social-emotional competence as cross-cutting priorities rather than separate modules;

5) systematic integration of digital pedagogy, AI literacy, and ethical technology use;

6) explicit attention to sustainability, citizenship, and cultural responsiveness;

7) governance reforms that align universities, teacher training institutions, NGOs, and international partners within common quality standards and career pathways.

Equally important, teacher professional learning in Ukraine cannot be separated from status, pay, workload, and wellbeing. No professional learning system will be sustainable if teachers remain economically undervalued, emotionally overburdened, and structurally unsupported. Therefore, professional learning policy must be integrated with wider teacher workforce policy. In European terms, professional learning is becoming a retention, a quality, and a resilience strategy at the same time. In Ukrainian terms, it is also a recovery and a nation-building strategy. Ultimately, the rethinking of teacher professional learning in Ukraine should be guided by a simple but demanding principle: teachers need not only more learning opportunities, but better organised, more humane, more collaborative, and more future-oriented professional learning conditions. Europe's recent research offers compelling evidence for how such conditions can be built. Ukraine's present experience shows why they are indispensable. If these two realities are brought together intelligently, teacher professional learning can become one of the strongest bridges between educational continuity in wartime and educational renewal in a European future.

References

1. Avsheniuk, N., & Seminikhyna, N. (2025). Evolving challenges in Ukrainian education: A comparative study of teacher perspectives. *Journal of e-Learning and Knowledge Society*, 21 (1), 42–50. <https://doi.org/10.20368/1971-8829/1136173>

2. Binder, K. (2024). *Teachers: Key to achieving the European Education Area* (EPRS Briefing PE 762.284). European Parliamentary Research Service. https://www.europarl.europa.eu/RegData/etudes/BRIE/2024/762284/EPRS_BRI%282024%29762284_EN.pdf

3. Bowden, R. (2025). Linguistically and culturally responsive pedagogy for sustainable futures: Learning from a European

teacher education project. *Education Sciences*, 15 (6), Article 647. <https://doi.org/10.3390/educsci15060647>

4. Brennan, A., & Gorman, A. (2023). Leading transformative professional learning for inclusion across the teacher education continuum: Lessons from online and on-site learning communities. *Professional Development in Education*, 49 (6), 1117–1130. <https://doi.org/10.1080/19415257.2023.2238717>

5. De Vroey, A., Lecheval, A., & Symeonidou, S. (2023). Supporting all educators to take part in teacher professional learning for inclusion. *Trends in Higher Education*, 2 (2), 320–331. <https://doi.org/10.3390/higheredu2020018>

6. Education International. (2025, October 7). *New TALIS data: Report confirms need to act on global teacher shortage and working conditions*. <https://www.ei-ie.org/en/item/31459:new-talis-data-report-confirms-need-to-act-on-global-teacher-shortage-and-working-conditions>

7. Elkin, O., Marushchenko, O., Masalitina, O., Rasskazova, O., Drozhzhyna, T., & Zhurba, K. (2023). Civil society organisations transforming teacher professional development: Social, emotional, and ethical learning in wartime Ukraine. *European Journal of Education*, 58 (4), 595–610. <https://doi.org/10.1111/ejed.12596>

8. European Commission. (2026, June 11). *The teaching profession in the EU*. European School Education Platform. <https://school-education.ec.europa.eu/en/discover/publications/state-teaching-profession-eu>

9. European Union. (2024). *Education and training monitor 2024: Comparative report*. Publications Office of the European Union. <https://doi.org/10.2766/815875>

10. Eurydice. (2024). *Learning for sustainability in Europe: Building competences and supporting teachers and schools*. Publications Office of the European Union. <https://doi.org/10.2797/81397>

11. Global Partnership for Education. (2026). *Education in Ukraine*. <https://www.globalpartnership.org/where-we-work/ukraine>

12. Global Partnership for Education. (2026, May 13). *Nearly 69% of teachers are satisfied with their career choice: UNESCO presents new study on the teaching profession in Ukraine*. <https://www.globalpartnership.org/news/teachers-satisfied-career-choice-unesco-new-study-teaching-profession-ukraine>

13. Godsk, M., & Nielsen, B. L. (2024). Online teacher professional development (oTPD) for digital competencies in higher education: A systematic review of the literature. *Nordic Journal of Systematic Reviews in Education*, 2, 16–57. <https://doi.org/10.23865/njsre.v2.5498>

14. Göltl, K., Ambros, R., Dolezal, D., & Motschnig, R. (2024). Pre-service teachers' perceptions of their digital competencies and ways to acquire those through their studies and self-organized learning. *Education Sciences*, 14 (9), Article 951. <https://doi.org/10.3390/educsci14090951>

15. Grimm, F. (2024). Teacher leadership for teaching improvement in professional learning communities. *Professional Development in Education*, 50 (6), 1135–1147. <https://doi.org/10.1080/19415257.2023.2264286>

16. Hertz, B., Grainger Clemson, H., Tasic Hansen, D., Laurillard, D., Murray, M., Fernandes, L., Gilleran, A., Rojas Ruiz, D., & Rutkauskiene, D. (2022). A pedagogical model for effective online teacher professional development. Findings from the Teacher Academy initiative of the European Commission. *European Journal of Education*, 57 (1), 142–159. <https://doi.org/10.1111/ejed.12486>

17. LOOP Consortium. (2023). *LOOP Policy Brief on the field trials: the impact of a Teachers' Induction Programme and a Mentors' Capacity Programme on the teaching profession*. https://empowering-teachers.eu/wp-content/uploads/2024/01/PB3_EN_final.pdf

18. OECD. (2025). *Results from TALIS 2024: The State of Teaching*. TALIS, OECD Publishing, Paris, <https://doi.org/10.1787/90df6235-en>

19. Ovcharuk, O. V. (2023). Monitoring the readiness of teachers to use digital tools during the war in Ukraine. *Information Technologies and Learning Tools*, 98 (6), 52–65.

20. Stavermann, K. (2025). Online teacher professional development: A research synthesis on effectiveness and evaluation. *Technology, Knowledge and Learning*, 30 (1), 203–240. <https://doi.org/10.1007/s10758-024-09792-9>

21. UNESCO. (2024, February 16). *More than 48,000 Ukrainian teachers enrolled in UNESCO's "Digital teacher" training*. <https://www.unesco.org/en/articles/more-48000-ukrainian-teachers-enrolled-unescos-digital-teacher-training>

22. UNESCO. (2025). *Supporting continuity of learning in Ukraine*. <https://www.unesco.org/en/global-education-coalition/ukraine-support>

23. UNESCO/Teacher Task Force. (2025, March). *Understanding the needs of Ukrainian teacher training institutions* [Policy paper]. <https://teachertaskforce.org/sites/default/files/2025-05/393188eng.pdf>

24. UNICEF. (2024, October 9). *Upward trend in educational results masked by subject, age and location disparities, according to the second phase of the educational quality assessment*. <https://www.unicef.org/ukraine/en/press-releases/upward-trend-educational-results-masked-subject-age-and-location-disparities>

25. UNICEF. (2025, September 1). *4.6 million children in Ukraine face ongoing educational barriers as fourth academic year during war begins*. <https://www.unicef.org/ukraine/en/press-releases/back-to-school>