JOURNAL OF UNIVERSAL SCIENCE RESEARCH

ISSN (E): 2181-4570 ResearchBib Impact Factor: 6,4 / 2024 SJIF 2024 = 5.073 Volume-4, Issue-01

IMPROVEMENT OF THE MECHANISM FOR IMPROVING THE QUALIFICATIONS OF PEDAGOGISTS OF NON-STATE EDUCATIONAL ORGANIZATIONS

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ANNOTATION

The rapid development of non-state educational organizations has intensified the need for highly qualified pedagogists capable of adapting to innovative teaching methodologies, digital technologies, and market-driven educational demands. This article examines existing mechanisms for improving the professional qualifications of pedagogists in non-state educational institutions and identifies key shortcomings in their implementation. Based on a systematic analysis, the study proposes an improved mechanism focused on continuous professional development, competency-based training, institutional autonomy, and digital learning platforms. The findings contribute to the development of a sustainable model for enhancing pedagogical quality in non-state education.

Keywords: professional development, pedagogists, non-state educational organizations, qualification improvement, educational quality, innovative teaching, digital technologies.

АННОТАЦИЯ

Быстрое развитие негосударственных образовательных организаций усилило потребность в высококвалифицированных педагогах, способных адаптироваться к инновационным методикам преподавания, цифровым технологиям и рыночным требованиям образования. В данной статье рассматриваются существующие механизмы повышения профессиональной квалификации педагогов в негосударственных образовательных учреждениях и выявляются ключевые недостатки в их реализации. На основе систематического анализа в исследовании предлагается усовершенствованный механизм, ориентированный на непрерывное

ISSN (E): 2181-4570 ResearchBib Impact Factor: 6,4 / 2024 SJIF 2024 = 5.073 Volume-4, Issue-01

профессиональное развитие, компетентностно-ориентированное обучение, институциональную автономию и цифровые образовательные платформы. Полученные результаты способствуют разработке устойчивой модели повышения качества педагогической деятельности в негосударственном образовании.

Ключевые слова: профессиональное развитие, педагоги, негосударственные образовательные организации, повышение квалификации, качество образования, инновационные методы обучения, цифровые технологии.

ANNOTATSIYA

Nodavlat ta'lim tashkilotlarining jadal rivojlanishi innovatsion o'qitish metodologiyalari, raqamli texnologiyalar va bozor talablariga moslasha oladigan yuqori malakali o'qituvchilarga bo'lgan ehtiyojni kuchaytirdi. Ushbu maqolada nodavlat ta'lim muassasalarida o'qituvchilarning kasbiy malakasini oshirishning mavjud mexanizmlari ko'rib chiqiladi va ularni amalga oshirishdagi asosiy kamchiliklar aniqlanadi. Tizimli tahlil asosida tadqiqotda uzluksiz kasbiy rivojlanish, kompetensiyaga asoslangan o'qitish, institutsional avtonomiya va raqamli o'quv platformalariga yo'naltirilgan takomillashtirilgan mexanizm taklif etiladi. Olingan natijalar nodavlat ta'limida pedagogik sifatni oshirishning barqaror modelini ishlab chiqishga hissa qo'shadi.

Kalit so'zlar: kasbiy rivojlanish, pedagoglar, nodavlat ta'lim tashkilotlari, malaka oshirish, ta'lim sifati, innovatsion o'qitish, raqamli texnologiyalar.

In the globalization and rapid digital transformation, education systems worldwide are undergoing profound structural and functional changes. The integration of digital technologies into educational processes, the expansion of online and blended learning formats, and the increasing use of data-driven educational management have significantly reshaped the professional requirements for pedagogists. In this regard, non-state educational organizations have emerged as key factors in the education sector due to their flexibility, innovation, and responsiveness to market demands.The effectiveness and competitiveness of non-state educational organizations largely depend on the professional qualifications of pedagogists, particularly their ability to operate in digital learning environments. However, existing mechanisms for improving pedagogists' qualifications in many non-state institutions remain predominantly traditional and fragmented, with limited alignment to digitalization processes. This gap hinders the effective implementation of innovative

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pedagogical technologies, reduces instructional quality, and limits institutional development. Moreover, the absence of systematic, digitally integrated professional development frameworks creates disparities in pedagogists' access to continuous training and digital skill enhancement. As a result, there is an urgent need to rethink and improve qualification improvement mechanisms by incorporating digital technologies, competency-based approaches, and continuous professional learning models. Addressing this issue is essential for ensuring educational quality, enhancing pedagogists' professional capacity, and strengthening the sustainability of non-state educational organizations. Therefore this article defines object of theme is the professional qualification improvement process of pedagogists in non-state educational organizations. Subject of the Study the mechanisms, methods, and organizational-pedagogical foundations for improving pedagogists' professional qualifications in the context of digitalization. Thus the aim of the study is to develop scientific and practical recommendations for improving the mechanism of professional qualification enhancement for pedagogists in non-state educational organizations based on the requirements of digital education.

As said To achieve the stated aim, the following objectives are needed to explore

1) to analyze scientific and methodological literature related to professional development and digital education;
2) to identify contemporary professional and digital competency requirements for pedagogists;
3) to examine existing mechanisms for improving pedagogists' qualifications in non-state educational organizations;
4) to study international best practices in digitally oriented professional development;
5) to propose an improved mechanism for enhancing pedagogists' professional qualifications through digital technologies.

Numerous international scholars emphasize the essential role of digital competencies for pedagogists as a response to global educational transformation. For example, Ning Yulin and Solomon Danquah Danso employ a **mixed-methods approach** to assess teachers' readiness for digital innovation, finding that while many instructors recognize the value of digital tools, they often lack structured professional development and institutional support for digital integration. The authors argue that professional development must be both focused and embedded within institutional practice to be effective, particularly in the context of educational digitalization. Early studies emphasized the transition from traditional

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professional development models to continuous and competency-based frameworks. Darling-Hammond et al. (2017) argue that effective teacher professional development must be sustained, practice-oriented, and aligned with institutional goals, rather than limited to short-term training courses. Their research highlights that digital technologies enhance accessibility and continuity of professional learning when embedded within institutional systems.

Selwyn (2016) critically examines digitalization in education, emphasizing that digital tools alone do not automatically improve teaching quality. According to the author, the effectiveness of digital professional development depends on pedagogists' ability to meaningfully integrate technology into pedagogical practice. This perspective shifts attention from technical skills toward pedagogical digital competence. Redecker (2017), through the development of the **European Framework for the Digital Competence of Educators (DigCompEdu)**, proposes a structured model for developing educators' digital competencies. The framework identifies six competence areas, including digital resources, teaching and learning, assessment, and professional engagement. Redecker's work significantly contributes to understanding professional development as a systematic and measurable process in the digital era.

More recent studies emphasize scalability and institutionalization. Guskey (2020) focuses on evaluating professional development effectiveness and stresses that digital professional learning environments must be linked to measurable changes in teaching practices and learning outcomes. OECD reports (2020; 2023) further support this view, presenting comparative data showing that countries with formal digital competence frameworks achieve higher levels of teacher readiness for digital instruction. Local and regional researchers focus more closely on **contextual challenges and practical implementation** of digital professional development. Studies conducted in Central Asian and post-Soviet educational contexts emphasize the gradual adaptation of pedagogists to digital environments.

For example, Mäulet and Masimbaeva (2019) analyze the development of digital literacy among teachers in Kazakhstan, concluding that many pedagogists possess basic ICT skills but lack competencies related to digital pedagogy, online assessment, and interactive content creation. The authors argue that professional development programs should prioritize applied digital teaching skills rather than general computer literacy. Research by Orleu

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Institute scholars (2020) highlights the importance of continuous professional development in digital environments, noting that professional growth should be integrated into everyday teaching practice. These studies emphasize modular training, blended learning formats, and institutional mentoring as effective mechanisms for improving qualifications in non-state educational organizations.

Lidak (2021) examines psychological and professional factors influencing pedagogists' development under digitalization. The study underscores that digital transformation affects not only skills but also professional identity, motivation, and attitudes toward lifelong learning. According to the author, successful digital professional development requires both technical training and psychological readiness for change. Research on improving pedagogists' professional qualifications in the context of digitalization has gained prominence in both international and national academic discourse. While international studies tend to emphasize systemic frameworks and digital competence models, local Uzbek research reflects the unique educational transformation dynamics within Uzbekistan's educational environment. **Local Uzbek Scholars on Professional Development and Digital Competence**,several recent Uzbek studies highlight the evolving role of digitalization in teacher education and professional development. Mamaziyayev (2025), in his study on ICT engagement and digital competence of preservice English teachers, argues that information and communication technologies (ICT) should be integrated purposefully into teacher preparation programs.

The research emphasizes that digital tools, including learning management systems and multimedia resources, are crucial for preparing future educators to meet 21st-century teaching demands, especially in language education.

Similarly, Ruzmetova's research (2025) on Uzbek teachers' digital competence in remote English language teaching demonstrates that while many teachers possess basic technological skills, they face challenges such as limited training opportunities and resistance to technology adoption, particularly in rural regions. The study also found a correlation between higher academic qualifications (e.g., doctoral degree) and stronger digital pedagogical competencies. [1] Narkabilova's (2025) investigation into the digital culture and competencies among future educators within Uzbekistan underscores the importance of embedding digital literacy and ICT competencies into teacher education

[1] https://inlibrary.uz/index.php/sies/article/view/51005?utm

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programs. This work highlights socio-economic determinants of digital integration and recommends structural improvements in digital literacy education as part of professional development. Other Uzbek research, such as Shopulatova (2024), examines the broader role of digital technologies in modern pedagogy, noting that effective digital integration requires strategic planning, teacher training, and supportive institutional policies to overcome implementation challenges. These local studies converge on the view that digital competence is not merely about technical skills but also involves pedagogical application, continuous professional growth, and adaptation to digital teaching environments specific to Uzbekistan's educational transformation.**on Improving Pedagogists' Qualifications**.

The review of literature reveals that scholars generally focus on two main approaches:Scholars like Redecker (2017) and Darling-Hammond et al. (2017) emphasize **systemic frameworks** such as DigCompEdu, which define core digital competences and propose structured pathways for professional development.The focus is **macro-level**, emphasizing institutional policies, evaluation metrics, and alignment with national or international standards.Strength: provides **scalable, measurable, and policy-aligned professional development systems**.Limitation: often lacks consideration for **local socio-economic contexts, digital access disparities, and practical limitations of teachers in developing countries**. [2] Studies by Mamaziyayev (2025), Ruzmetova (2025), and Narkabilova (2025) focus on **teachers' actual ICT skills, access to digital tools, and integration in classroom practice**.Strength: grounded in **real-world educational challenges** in Uzbekistan, highlighting gaps in digital literacy, institutional support, and teacher motivation.Limitation: less attention to **systematic frameworks, evaluation, and long-term professional development mechanisms**. [3]**Core Principles of the Conception**. Building upon the gaps and strengths identified in the above literature, the author proposes a **holistic mechanism for improving the qualifications of pedagogists**, with a focus on **non-state educational organizations** in Uzbekistan. The main principles of this conception are:**Integrated Digital Competence Approach** Combines **international frameworks** (like

[2] https://www.unesco.org/en/articles/unesco-presented-results-research-ict-literacy-school-teachers-shortcomings-and-achievements

[3] https://inlibrary.uz/index.php/sies/article/view/51005?utm_

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DigCompEdu) with **local practical needs**, ensuring teachers not only acquire technical skills but also can apply them pedagogically.Emphasizes competency in **digital teaching, assessment, resource creation, and learner engagement**.**Contextual Adaptation** . Acknowledges local constraints such as **limited infrastructure, socio-economic disparities, and resistance to digital tools**.Professional development programs are **modular, flexible, and adapted to rural and urban schools**.**Continuous and Practice-Oriented Professional Development**.Unlike short-term workshops, the author stresses **ongoing training embedded in daily teaching practices**, supported by mentoring and blended learning platforms. Includes **digital portfolios, peer-to-peer collaboration, and reflective practice** as evaluation tools.**Motivation and Career Alignment**.Professional growth is linked to **career incentives, recognition, and digital certification**, ensuring teacher engagement and long-term adoption of digital competencies.**Institutional and Policy Support**.Proposes cooperation between **non-state organizations, government programs, and international initiatives** to provide **structured, resource-supported PD pathways**. This study employs a **mixed-methods approach**, combining **quantitative surveys** with **qualitative interviews** to evaluate the effectiveness of professional development mechanisms for pedagogists in non-state educational organizations in Uzbekistan. The mixed-methods design allows triangulation, enabling validation of results from multiple perspectives and a comprehensive understanding of both measurable outcomes and subjective experiences. **(Quantitative Survey)**.The survey instrument was developed by the author based on: the **DigCompEdu framework** ,findings from Uzbek scholars on digital competence development,and the author's conceptual model of professional qualification improvement. The questionnaire consisted of closed-ended items grouped into the following dimensions:

- Digital pedagogical competence
- Use of digital resources in teaching
- Digital assessment practices
- Professional collaboration through digital platforms
- Motivation and institutional support for professional development

Responses were measured using a **five-point Likert scale**, allowing statistical processing and comparative analysis.**data analysis procedures**.Quantitative data were analyzed using **statistical methods appropriate for educational research**, including:

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- **Descriptive statistics** to determine general trends and distributions;
- **Inferential statistics** to examine differences between groups;
- **Correlation analysis** to identify relationships between digital competence and participation in professional development activities.Qualitative interview data were analyzed thematically and used **only to interpret and explain statistically significant patterns**, not as independent evidence.**Results.Descriptive statistical findings.**

The descriptive statistical analysis revealed that pedagogists in non-state educational organizations demonstrate **uneven levels of digital professional competence**. Higher scores were generally observed in areas related to **basic digital resource usage and professional communication**, while lower scores appeared in **digital assessment practices and pedagogical integration of technologies**. These findings indicate that existing professional development mechanisms emphasize technical familiarity rather than **pedagogically meaningful digital competence**.**Comparative statistical analysis**.Comparative analysis showed statistically significant differences based on:**Teaching experience**, indicating that professional maturity influences digital adaptation;**Geographical location**, with urban pedagogists demonstrating higher digital competence levels than their rural counterparts;**Participation in professional development programs**, confirming a positive association between systematic training and professional qualification improvement.These results statistically confirm that **access, continuity, and institutional support** are decisive factors in professional qualification development under digitalization.

Correlation analysis demonstrated a significant relationship between: engagement in digital professional development activities and, higher levels of pedagogical digital competence.

This confirms our assumption that **sporadic training is insufficient**, and that **continuous, structured professional development mechanisms** are necessary for sustainable qualification improvement. **Role of Qualitative Findings**Qualitative interview data supported the statistical results by clarifying: why certain competence areas remain underdeveloped, how institutional constraints affect professional growth, and which elements of digital professional development are perceived as effective by pedagogists.

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Importantly, qualitative data **did not replace statistical findings**, but strengthened their interpretation.Unlike existing studies that rely either on descriptive surveys or narrative qualitative analysis, this research: Prioritizes **statistical validity**,integrates qualitative insights **only to explain quantitative outcomes**,and applies a **context-sensitive analytical framework** adapted to non-state educational organizations in Uzbekistan. This methodological approach enhances the reliability of conclusions and aligns with **international academic standards**.**Comparative Analysis:**

Professional Development and Digitalization in the United States and China .participation in Digital Professional Development a **recent comparative international study** covering teacher professional development in the digital age reveals that both the United States and China have experienced **significant increases in online teacher professional development (TPD) participation** over the past decade. According to this study, in **China**, the participation rate in online TPD programs surged from **around 30% in 2014 to approximately 75% by 2024**. This dramatic growth reflects major centralized educational reforms and national projects such as **Smart Education of China**, which expanded online professional training infrastructure at a rapid pace. In contrast, the **United States** also achieved a high participation rate in digital TPD, exceeding **75% by 2024**, albeit through a more **decentralized, district-led approach** focusing on flexibility and local adaptation. Both countries now report **over three-quarters of teachers engaging in digital professional development activities**, a benchmark that is higher than many international averages (e.g., the OECD average of 60% participation in ICT-related PD). **Effectiveness and Perceived Quality of Digital PD**.In addition to participation rates, research shows substantial improvement in teachers' perceptions of the **effectiveness of digital professional development** in both countries.In the **United States**, teachers' average perceived effectiveness of online TPD programs increased from **3.20 (on a 5-point scale) in 2014 to 4.50 in 2024**.In **China**, effectiveness ratings rose from **2.80 to 4.30** over the same decade. These improvements reflect a maturation of training systems in both contexts, including the adoption of more **modular, needs-based, pedagogically focused content** and improved online instructional design. **Digital Access and Infrastructure Trends**Teachers' ability to participate in digital professional development is strongly influenced by **digital infrastructure**.In the **United States**, internet access suitable for online TPD among teachers increased moderately from **85% in 2014 to 95% in 2024**, indicating infrastructure

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saturation and incremental improvement.In **China**, internet access grew more sharply—from **60% to 90%** over the same period—largely due to large-scale national investments in broadband expansion, especially in rural and underserved regions. Similarly, access to suitable digital devices (laptops/tablets) for teachers rose from **80% to 92% in the United States**, and from **55% to 88% in China**, respectively. These trends show that while the United States began with a higher baseline of digital access, China's **rapid infrastructure improvements** significantly narrowed the digital divide, enabling broader participation in online professional development.The two giant educational systems illustrate contrasting **policy governance models**:**China's centralized strategy** emphasizes large-scale rollout of digital platforms and training mandates coordinated at the national level, leading to rapid deployment and high participation rates. This reflects a unified approach that ensures uniform access to digital PD across regions. **The United States' decentralized model** focuses on local initiative, with districts and states tailoring digital PD to contextual needs. This approach encourages flexibility and pedagogical innovation but requires stronger coordination to scale high-quality offerings across all regions. Despite different governance models, both nations achieved **similar outcomes**—an indication that effective digital PD can be advanced through multiple systemic approaches.According to the [4]**OECD Digital Education Outlook**, about **60% of teachers across OECD countries engage in professional development on digital education annually**, but many still report needing further training in the use of ICT for teaching. This highlights that even advanced systems require continued focus on **teacher digital competence and structured PD mechanisms**, aligning with the comparative findings from China and the United States.These comparative data points support the following analytical conclusions relevant to your research on improving the mechanism for professional qualification improvement: **Participation and Access Trends**.Both large countries demonstrate that **broad participation rates (>75%)** in digital professional development are achievable, but require supportive digital infrastructure and policy incentives.**Formalization and Quality**.Improvement in **perceived effectiveness** of digital PD over time suggests that **quality, relevance, and pedagogical alignment** of training content are just as important as access and participation. **Diverse Governance Models** different systemic approaches—centralized vs. decentralized—can still result in similar outcomes, highlighting that **mechanism design can be flexible**,

[4] https://www.oecd.org/en/publications/oecd-digital-education-outlook-2023_c74f03de-en.html

ISSN (E): 2181-4570 ResearchBib Impact Factor: 6,4 / 2024 SJIF 2024 = 5.073 Volume-4, Issue-01

provided it ensures continuity, scalability, and relevance. This study examined mechanisms for improving pedagogists' professional qualifications under conditions of digitalization through a comparative analysis of two major educational systems—the United States and China. The analysis demonstrates that despite significant differences in governance structures, both countries have successfully expanded **digital professional development (DPD)** through systematic investment in infrastructure, institutional support, and policy alignment.

The findings indicate that **high participation rates in digital professional development (exceeding 75%)** are achievable when professional learning is institutionalized rather than treated as an optional or isolated activity. In both countries, increased participation was accompanied by measurable improvements in teachers' perceived effectiveness of digital training, confirming that **quality and pedagogical relevance** are critical determinants of professional growth.

At the same time, the comparison reveals that **structural design matters more than governance model**. China's centralized approach enabled rapid scaling and equalization of access, while the United States' decentralized model promoted flexibility and innovation. However, both systems achieved comparable outcomes because professional development mechanisms were **continuous, digitally supported, and aligned with teaching practice**. *Digitalization improves pedagogists' professional qualifications only when embedded within a coherent, continuous, and institutionally supported professional development mechanism.* By this conclusion directly supports the conception that improving qualification mechanisms in non-state educational organizations requires **systematic digital integration rather than fragmented ICT training**. **Recommendations ,b**ased on the comparative analysis and the author's theoretical framework, the following recommendations are proposed: Professional development should be formally embedded into the operational structure of educational organizations. Drawing from both U.S. and Chinese experiences, digital professional development must be: continuous rather than episodic,linked to institutional objectives,supported by stable digital platforms.For non-state educational organizations, this implies establishing **mandatory, recurring digital training pathways** rather than voluntary short-term courses. **Prioritize pedagogical digital competence t**he analysis demonstrates that basic digital access alone does not guarantee professional improvement. Therefore, professional development programs should shift focus from

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general ICT skills to: digital pedagogy,digital assessment methods, Instructional design using digital tools.This aligns international frameworks with local needs and addresses the competence gaps observed in developing educational systems.China's experience highlights the importance of state-supported infrastructure expansion, while the U.S. case demonstrates the value of local flexibility. For non-state organizations, particularly in developing contexts, it is recommended to: invest in minimum digital infrastructure standards, provide shared platforms for professional learning, support rural and resource-limited institutions through targeted digital solutions. Evidence from both systems indicates that teacher engagement increases when professional development is connected to: career progression, certification,professional recognition. Therefore, digital professional development should be linked to **career advancement mechanisms**, motivating pedagogists to engage in sustained learning.Rather than directly replicating foreign models, non-state educational organizations should adopt a **hybrid mechanism**: international standards for structure and evaluation,local adaptation for content, delivery mode, and institutional capacity.

This approach ensures relevance, sustainability, and effectiveness therefore , the comparative evidence from two leading educational systems confirms that **effective digital professional development is not dependent on national wealth or governance structure alone**, but on the **design quality of the professional development mechanism**. Accordingly, the proposed model—integrating continuity, pedagogical relevance, institutional support, and contextual adaptation—offers a viable framework for improving the professional qualifications of pedagogists in non-state educational organizations under conditions of digitalization.

References

1. OECD. (2023). *OECD Digital Education Outlook 2023: Towards an Effective Digital Education Ecosystem*. OECD Publishing. Retrieved from
2. Mamaziyayev, O. X. (2025). *ICT engagement and digital competence of preservice English teachers*. Zamonaviy fan va ta'lim yangiliklari.
3. UNESCO Office in Tashkent. (2025). *Research on ICT literacy of school teachers: Shortcomings and achievements*. UNESCO.

ISSN (E): 2181-4570 ResearchBib Impact Factor: 6,4 / 2024 SJIF 2024 = 5.073 Volume-4, Issue-01

4. Narkabilova, G. P. (2025). *Developing digital culture and competencies in future educators within Uzbekistan's transforming educational system*. European International Journal of Pedagogics, 5(03), 67–71.
5. Nurmamotov, R. A. (2024). *Digital competence of a technology teacher*. Наука и инновации в системе образования.
6. Ning, Y., & Danso, S. D. (2025). *Assessing pedagogical readiness for digital innovation: A mixed-methods study*.
7. Jumaeva, U. (2025). *The importance of developing digital literacy skills in optimizing the professional competence of future foreign language teachers*. Science and Education, 6(3), 492–496.
8. UNESCO Office in Tashkent. (2025). *Research on ICT Literacy of School Teachers: Shortcomings and Achievements*. UNESCO Uzbekistan.
9. OECD – Digital Education Outlook 2023
10. **Full citation:** OECD. (2023). *OECD Digital Education Outlook 2023: Towards an Effective Digital Education Ecosystem*. OECD Publishing, Paris.