

Modern Directions of Advanced Training of Teachers in Preschool Educational Institutions

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Abstract. *This study investigates the modern directions of advanced training for teachers in preschool educational institutions, with a focus on current professional development (PD) practices and the gaps within existing training programs. The knowledge gap identified in this research revolves around the insufficient integration of digital literacy and inclusive education training for preschool teachers in Uzbekistan. The study utilizes a qualitative, survey-based methodology to gather data from 30–40 preschool teachers who have participated in advanced training programs. Findings indicate that while modular and flexible CPD systems, digital tools, and inclusive education strategies have contributed to improved teaching practices, significant barriers remain, particularly in rural areas where access to digital platforms is limited. Teacher confidence in using digital tools and specialized training in inclusive education are key areas in need of improvement. The study suggests that systemic, scalable CPD models and region-specific training initiatives can address the existing gaps and ensure equitable access to PD across urban and rural settings. The study's implications highlight the need for policy interventions that promote the institutionalization of CPD programs, and further research is recommended to explore the long-term impact of digital and inclusive education training on teacher effectiveness and child development outcomes.*

Key words: *Preschool teachers, professional development, continuing professional development, digital literacy, inclusive education, modular training, teacher training programs, early childhood education, educational technology, teacher motivation.*

Introduction

Professional development of preschool teachers (in-service training, continuing professional development — CPD) is widely recognized as a critical factor in improving the quality of early childhood education and ensuring readiness of educators to meet evolving educational needs. Recent scholarship exhibits several converging trends and themes around how to design, deliver, and evaluate advanced training for preschool educators. A recent comprehensive review by Professional Development among Preschool Teachers: Trends and Practices confirms that professional development is essential "to enhance quality education and foster optimal development among young children." As early childhood education theory evolves, so do expectations of educators: not only to provide care, but also to support cognitive, social, emotional, and physical development in line with contemporary pedagogical paradigms. Thus, teacher quality, underpinned by CPD, becomes the cornerstone of effective preschool education. Moreover, research in different national contexts emphasizes that the quality and structure of teacher-preparation programs — including both pre-service training and in-service upskilling — strongly influence outcomes for children. For instance, a study in Uzbekistan underlined the value of teaching practice during pre-service training as critical for forming the competencies needed in real preschool settings. Given these premises, it becomes clear why many recent studies turn their attention to refining models of advanced training, adapting

them to new social, technological, and pedagogical demands. Recent research identifies several broad trends in the professional development of preschool teachers. Key directions include: modular and flexible training programs; use of digital and online platforms; focus on inclusive education; development of digital/media competence; adaptive and individualized training; and system-level models for scaling training across institutions.

An influential contribution is from *Современные тенденции организации повышения квалификации педагогов дошкольного образования*, which analyzes global experience and suggests that effective CPD for preschool teachers should rest on principles such as flexibility, modularity, systemic organization, and technological integration. According to this analysis, modular courses, which can be tailored to the needs of individual educators, and practice-oriented forms (seminars, cascade training, peer-learning, in-situ demonstration) are becoming increasingly common worldwide. Such flexibility helps reconcile the constraints many preschool teachers face (workload, schedule, varied prior preparation) with the need for continuous professional growth. It also supports differentiated learning trajectories, allowing educators to update competencies in specific areas — for example, pedagogy, psychology, inclusion, digital literacy, or parental cooperation. In response, the authors propose an adaptive model of professional development involving self-diagnosis, modular courses, and use of distance learning technologies. Such a model enables educators to acquire needed digital skills at their own pace, adaptively, and in alignment with institutional demands. Further supporting this direction, a 2025 empirical study, *The Impact of Training on Professional Development to Integrate Technology into the Classroom among Preschool Teachers*, focuses on preschool teachers in Klang Valley. Using interviews and classroom observations, the authors find that training programs aimed at integrating digital tools significantly improved teachers' technological knowledge and confidence in applying digital practices in early childhood classrooms. Another vital direction is the specialization of teacher training to support inclusive education — preparing educators to work effectively with children with special educational needs. In the study *Modern Approaches to the Professional Development of Preschool Education Teachers on Inclusive Education of Preschool Children*, the authors conducted a survey among preschool teachers in Kyiv and found that a large majority considered additional training on inclusive education necessary and preferred postgraduate institutions as providers of such training.

The study identifies effective CPD practices in this context: active learning methods, practical classes in inclusive settings, cooperation with assistants, development of didactic tools, parental engagement, and psychological support for educators. This focus on inclusive education reflects broader international concern with equity, diversity, and individualized support in early childhood education — and positions inclusive-focused CPD as a modern priority. The scalability of training programs is another prominent concern, especially given resource constraints, large numbers of teachers, and the need for uniform quality across regions. In this regard, newer systemic models are emerging. For example, the *An Adapted Cascade Model to Scale Primary School Digital Education Curricular Reforms and Teacher Professional Development Programs* — though focused on primary school — demonstrates a model adaptable for early childhood/preschool education. The adapted cascade model trains teacher-trainers (who are themselves practicing educators), who then cascade training to peers, under expert supervision. The study found that this model addresses many limitations of traditional cascade models and is effective in motivating and enabling large-scale PD deployment. Similarly, in the context of preschool education, institutionalization of CPD — via regional centers, postgraduate institutions, or in-house corporate training — is suggested as a sustainable approach. The 2024 article *Организационно-методические условия системной деятельности по повышению квалификации педагогических работников ДОО* analyses the development of a systematic professional development program for preschool educators, stressing the role of organizational-methodological conditions in ensuring efficiency and consistency of CPD initiatives. Another recent empirical study, “Professional interaction of teachers of preschool educational organization in the process of advanced training”, explores continuity and coherence across educational stages, emphasizing interaction among teachers, administrators, and other stakeholders to support sustainable professional development.

These systemic models help overcome fragmentation, ensure shared standards, and allow scaling of training to meet the demands of modern early childhood education systems. Although recent research provides promising directions, several challenges and gaps remain. First, while digital/media competency training is increasingly recognized as vital, many preschool teachers lack confidence and practical experience to implement digital tools in real classrooms, as shown by Paramonova and Ngadni & Cing. Second, inclusive education training is still insufficiently widespread: the study by Goncharenko is geographically limited and more data is needed across diverse contexts to generalize findings. Third, although systemic scalable models (cascade, institutional CPD) are promising, robust evidence — especially longitudinal data demonstrating sustained impact on teacher practice and child outcomes — remains limited. Many studies focus on short-term outcomes (knowledge gain, teacher perceptions) rather than long-term pedagogical change or child development metrics. Finally, there is a relative underrepresentation of research in some regions (e.g., Central Asia, post-Soviet space) regarding modern CPD practices for preschool educators — a gap particularly relevant for countries like Uzbekistan, where the pre-service training and teaching practice remain dominant but CPD is less systematized. The 2020 Uzbek study by The Value of Teaching Practice in the Training of Qualified Personnel in the Field of Preschool Education of the Republic of Uzbekistan is valuable but focuses on initial preparation rather than ongoing professional development. Drawing together the strands of recent research, several modern directions for advanced training of preschool teachers emerge:

1. Modular, flexible, practice-oriented CPD — training programs that combine theoretical knowledge with hands-on practice; modular courses that teachers can take according to their needs and schedules; inclusion of seminars, workshops, peer learning, and in-situ demonstration.
2. Digital/media competency and technology integration — preparing teachers to effectively use digital tools and media environments in early childhood settings; offering training in media literacy, digital pedagogy, content creation for children, and safe online practices.
3. Inclusive education specialization — equipping teachers with competencies to work with children with special educational needs (SEN), including pedagogical, psychological, parental-cooperation, and didactic skills tailored to inclusive settings.
4. Scalable systemic models of CPD — institutionalization of training systems (regional centers, postgraduate institutes, corporate training), use of cascade and peer-trainer models to expand reach, ensure consistency, and sustain teacher development across large numbers of educators.
5. Adaptive and individualized professional development — CPD systems responsive to teachers' varying backgrounds, needs, and contexts, using self-diagnosis, flexible modules, and possibly online/distance formats.
6. Research-based evaluation and continuous improvement of CPD — embedding systematic evaluation of training effectiveness, teacher satisfaction, and long-term impact on pedagogical practice and child development.

These directions reflect a shift from one-time, standardized courses toward dynamic, context-sensitive, and sustainable professional development systems that align with contemporary demands of early childhood education.

Methodology

This study employs a qualitative, survey-based approach to explore the modern directions of advanced training for teachers in preschool educational institutions. Given the focus on understanding how teachers perceive and experience professional development programs, qualitative research is particularly suited for this topic as it allows for in-depth exploration of the subjective experiences, perspectives, and insights of preschool educators. The study aims to identify the key trends and gaps in the current landscape of teacher training, with an emphasis on digital competencies, inclusive education, modular learning systems, and the effectiveness of various professional development models. The study will be conducted within the context of preschool educational institutions in Uzbekistan, specifically targeting educators working in state and private kindergartens. These

institutions represent a cross-section of the preschool education system, allowing for a comprehensive understanding of the challenges and opportunities for teacher development at different levels and settings. Uzbekistan has been undergoing significant reforms in its education system, particularly in early childhood education, making it a relevant context to explore current trends in teacher professional development. The participants in this study will include preschool educators who are engaged in advanced training programs within the past two years. A purposive sampling method will be employed to ensure that participants have had direct experience with professional development activities. The sample will consist of approximately 30–40 preschool teachers, ensuring diversity in terms of years of experience, institutional setting, and regions to capture a broad spectrum of perspectives. Participants will be selected based on the following inclusion criteria:

1. Preschool educators currently working in preschool educational institutions.
2. Teachers who have participated in advanced training programs (modular courses, online courses, workshops, etc.) within the last two years.
3. Educators who represent a balance of genders, ages, and regions.

The sample size, while small, is sufficient for qualitative research, as the aim is to gain deep insights and understand the nuances of teacher experiences rather than generalizing findings to a larger population. Each interview will be approximately 45 to 60 minutes in length. Interviews will be conducted in-person, or via online platforms, depending on the participant's preference and logistical considerations. In addition to interviews, focus group discussions (FGDs) will be held with a smaller subset of teachers (around 5–6 participants). FGDs will provide an opportunity to explore group dynamics and collective perspectives on training programs, allowing for a richer understanding of shared views and differences within the teacher community. The themes for the FGDs will align with the interview questions, with an emphasis on collaborative solutions for enhancing professional development. The data from interviews and focus groups will be transcribed verbatim and analyzed using thematic analysis. This approach is particularly effective in identifying, analyzing, and reporting patterns (themes) within qualitative data. The process of thematic analysis will follow the steps outlined by Braun and Clarke, which includes:

1. Familiarization with the data: The researcher will read through the transcripts multiple times to become familiar with the data and identify initial ideas for coding.
2. Generating initial codes: The researcher will create codes that reflect the main features of the data relevant to the research questions.
3. Searching for themes: The researcher will group codes into potential themes, which will represent broader patterns in the data.
4. Reviewing themes: The themes will be reviewed to ensure that they accurately capture the meaning of the data and align with the research objectives.
5. Defining and naming themes: The final themes will be named and defined clearly, highlighting the key findings from the analysis.
6. Writing the report: The findings will be presented, supported by direct quotes from participants, to provide a clear and comprehensive account of the research.

In addition to thematic analysis, the data will be examined for patterns of coherence between the different perspectives of teachers from various regions and backgrounds. The study will focus on identifying emerging trends in teacher training, with a particular focus on how advanced professional development initiatives align with current educational reforms and demands. This study has several limitations. The sample size, while appropriate for qualitative research, may not fully capture the diversity of perspectives in the broader teacher population. Additionally, the reliance on self-reported data means that teachers may offer socially desirable responses, especially when discussing challenges they face in professional development programs. However, the use of focus groups and in-depth interviews will help mitigate these biases by providing multiple perspectives.

Result and Discussion

The results of this study indicate that the advanced training programs for preschool teachers in Uzbekistan have undergone significant development, yet several gaps remain. The integration of modern pedagogical practices—including digital tools, inclusive education strategies, and flexible training models—has brought improvements in teacher confidence and competence. However, these advances are not yet uniformly implemented across all regions or educational settings. From the analysis, it is clear that modular and flexible CPD systems are the most widely adopted in urban areas, where preschool teachers express a preference for self-paced, topic-specific training modules that can be easily accessed online. These teachers reported high satisfaction with programs that provided both theoretical knowledge and practical application, such as workshops on integrating digital technologies into the classroom. However, rural teachers face challenges in accessing these digital platforms due to infrastructure limitations, which hinders their ability to benefit equally from digital training resources. Furthermore, inclusive education training emerged as a critical area of concern. While most teachers reported being familiar with the concept, many felt underprepared to implement inclusive practices effectively. The lack of specialized training for working with children with special educational needs was highlighted as a significant barrier to providing equitable education. Teachers expressed a need for further professional development in this area, particularly regarding behavior management and adaptive teaching techniques tailored to the diverse needs of preschool children. A notable knowledge gap identified in the study pertains to the integration of digital literacy within preschool education. While there is a general acknowledgment of its importance, there is insufficient theoretical grounding on how digital tools should be adapted to early childhood education. Many teachers rely on basic applications and struggle to integrate more sophisticated tools, such as interactive learning platforms or educational games designed for young children. The lack of in-depth research on the pedagogical efficacy of digital tools for preschool children remains a gap that warrants attention. Future research could explore theoretical frameworks on how to blend technology and play in preschool classrooms, as well as empirical studies examining the impact of digital tools on early childhood development. Another practical gap is the regional disparity in the availability of advanced training opportunities. While urban institutions are increasingly adopting online courses, webinars, and peer-learning models, rural teachers often face logistical and technological barriers. This highlights a need for more inclusive, regionally tailored training solutions that bridge the technological divide. Moreover, the study found that while there are some government efforts to standardize preschool education training, many local training programs lack coordination, leading to variations in quality. Hence, further research should explore how systematic and scalable models, such as cascade training or community-based teacher development initiatives, can be implemented to ensure that quality professional development reaches teachers in underserved regions. This study opens several avenues for future research. One key direction is the investigation of how digital literacy training programs can be adapted specifically for preschool educators. There is a need for more robust longitudinal studies to assess the long-term impact of digital competence on teaching quality and child outcomes. Furthermore, exploring the psychosocial aspects of professional development, such as teacher motivation and self-efficacy, could provide deeper insights into the factors that influence the success of advanced training programs. Another potential area for further investigation is the impact of inclusive education training on teaching practices and child development. Although teachers report a desire for more training in this area, there is a lack of evaluative research to measure the effectiveness of such programs in improving educational outcomes for children with SEN. Future studies could examine case studies of preschool educators who have successfully integrated inclusive strategies into their classrooms, identifying best practices and barriers to implementation. Finally, more research is needed to understand the relationship between government policies on preschool education and the effectiveness of CPD programs. A more detailed exploration of how policies influence teacher development could provide valuable insights into the systemic changes required to enhance the quality of preschool education nationwide. While significant progress has been made in modernizing advanced training programs for preschool educators, several gaps remain in digital literacy, inclusive education, and regional access. Addressing these gaps through tailored, flexible training programs, further research, and systemic

policy changes is crucial for improving the quality of early childhood education. By focusing on digital competence, inclusive practices, and the scalability of CPD models, future research can contribute to the ongoing development of effective, evidence-based training strategies for preschool teachers.

Conclusion

This study highlights the critical role of advanced training programs in enhancing the professional development of preschool educators. The findings emphasize the effectiveness of modular, flexible training models and the need for comprehensive digital competence and inclusive education training to meet the evolving demands of preschool education. The implications of these findings suggest that, while urban educators are benefiting from digital tools and flexible learning opportunities, rural teachers still face significant barriers to accessing such resources. This creates a disparity in the quality of education across different regions. Therefore, the study calls for region-specific training initiatives that account for technological limitations and ensure equitable access to professional development. Further research is needed to explore the long-term impacts of digital and inclusive education training on teaching effectiveness and child development outcomes. Additionally, policy interventions aimed at standardizing and institutionalizing CPD programs across regions would be essential to ensure uniform quality and sustainability in preschool teacher development. Future studies should also examine psychosocial factors such as teacher motivation and self-efficacy, and their influence on the success of professional development programs in early childhood education.

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