DEVELOPING THE PROFESSIONAL QUALITIES OF FUTURE PRIMARY SCHOOL TEACHERS THROUGH PREPARATION FOR INNOVATIVE PEDAGOGICAL ACTIVITIES

Roila Jumayevna Yoldosheva
Lecturer at the Department of Physiology,
Karshi State University phone:
Shakhlo Anvar kizi Royobova
Master's student in Pedagogy University
of Economics and Pedagogy
https://doi.org/10.5281/zenodo.15709435

Abstract

In the context of modern educational reforms, the professional development of future primary school teachers must be aligned with the requirements of innovative pedagogical practice. This study investigates the role of innovation-focused training in cultivating essential professional qualities among pre-service teachers. Employing a mixed-methods research design, data were collected through surveys, semi-structured interviews, and classroom observations from 180 teacher education students across three institutions. Quantitative findings revealed a significant positive correlation between the application of innovative strategies and increased levels of adaptability, creativity, digital competence, and reflective thinking. Qualitative analysis further highlighted shifts in teacher identity, the importance of experiential learning, and the need for institutional support in fostering innovation. The study concludes that embedding innovative pedagogical preparation into teacher education curricula is vital for equipping future educators with the competencies necessary for 21st-century primary education. The findings have implications for curriculum designers, educational policymakers, and teacher educators seeking to bridge the gap between theory and effective pedagogical practice.

Keywords: *Teacher education, Professional development, Innovative pedagog, Pre-service teachers, Reflective practice, Digital competence*

1. Introduction

In the context of the rapidly evolving demands of 21st-century education, the role of the primary school teacher is undergoing significant transformation. The shift from traditional pedagogical paradigms toward more dynamic, student-centered, and innovation-driven approaches necessitates a reevaluation of teacher education systems. One of the critical challenges in teacher training today is to ensure that future educators are not only well-versed in subject content and pedagogical theory but are also equipped with the professional qualities required to engage in innovative pedagogical activities. Professional qualities such as critical thinking, creativity, adaptability, digital competence, emotional intelligence, and reflective practice are increasingly viewed as essential for teachers to foster holistic student development and to meet the diverse needs of modern classrooms [1]. The cultivation of these competencies must begin during the initial stages of teacher education, particularly through targeted preparation in innovative teaching methods, integration of educational technologies, project-based learning, and the ability to design inclusive and differentiated instruction.

This paper aims to explore the theoretical and practical foundations of developing professional qualities in future primary school teachers, with a particular focus on their preparation for innovative pedagogical activities. The research underscores the importance of modernizing the content, methods, and organizational forms of teacher training programs. It also highlights the role of practice-based learning, interdisciplinary integration, and mentorship in shaping a new generation of teachers capable of implementing reforms in primary education systems. By analyzing international best practices, existing pedagogical models, and empirical findings, this study seeks to present effective strategies for fostering professional growth among pre-service teachers. Ultimately, the goal is to contribute to the formation of a reflective, proactive, and innovation-oriented teaching workforce that is prepared to meet the evolving challenges of primary education in the 21st century [1,2].

Methodology

This study employed a mixed-methods approach, combining qualitative and quantitative research methods to provide a comprehensive understanding of how professional qualities in future primary school teachers can be developed through preparation for innovative pedagogical activities. The rationale for using this approach lies in the multifaceted nature of professional development, which encompasses cognitive, emotional, and behavioral dimensions that are best captured through both numerical data and in-depth narrative analysis.

Research Design

A **sequential explanatory design** was used, where quantitative data collection and analysis were followed by qualitative methods to explain and elaborate on the quantitative findings. This design ensured triangulation of results and increased the validity of the study.

Participants

The study was conducted among **third- and fourth-year undergraduate students** enrolled in a Primary Education degree program at three teacher training universities. A total of **180 pre-service teachers** participated in the quantitative phase, while **24 participants** were selected for in-depth semi-structured interviews during the qualitative phase, using purposive sampling to ensure diversity in academic performance, motivation, and engagement in innovative pedagogical practices.

Instruments and Tools

1. **Questionnaire**: A structured questionnaire was developed to assess the participants' perceptions of their professional qualities, readiness for innovation, digital literacy, and attitude toward pedagogical experimentation. It included Likert-scale items, semantic differentials, and open-ended questions.
2. **Interview Protocol**: Semi-structured interviews explored themes such as challenges in implementing innovative methods, experiences during practicum, and perceptions of their own professional growth.
3. **Observation Checklist**: Lesson observations were carried out during practicum placements to assess the application of innovative methods and the demonstration of key professional qualities such as adaptability, creativity, and classroom management.

Procedure

The study was conducted over one academic semester. Initially, all participants completed the questionnaire. Subsequently, lesson observations were conducted during teaching

practicum sessions. Finally, selected participants underwent individual interviews, which were audio-recorded and transcribed for thematic analysis.

Data Analysis

Quantitative data were analyzed using **SPSS 26.0**, employing descriptive statistics, correlation analysis, and regression modeling to determine the relationship between innovative pedagogical training and the development of professional qualities.

Qualitative data from interviews were analyzed using **thematic content analysis**, identifying recurring patterns and emerging themes related to self-perceived growth, challenges, and recommendations for teacher training improvements.

Ethical Considerations

Participation was voluntary and based on informed consent. All participants were assured of the confidentiality of their responses, and data were anonymized. The study was approved by the Ethics Committee of the lead institution.

Results

The findings of the study provide a comprehensive overview of how participation in innovative pedagogical activities contributes to the development of key professional qualities in future primary school teachers. The results are presented in two sections: **quantitative analysis** and **qualitative thematic findings**.

1. Quantitative Results

Analysis of the questionnaire data revealed the following key trends: **High Awareness of Innovation Importance**: 82% of respondents strongly agreed that innovative teaching methods are essential for modern primary education. **Digital Competence Levels**: 64% of participants rated themselves as "moderately proficient" in using digital tools for teaching, while only 21% felt "highly confident" in integrating technology innovatively into lessons. **Correlation Between Practicum and Professional Growth**: A significant positive correlation (**$r = 0.68$, $p < 0.01$**) was found between the number of innovative strategies applied during practicum and the self-reported development of professional skills such as creativity, adaptability, and communication. **Regression Analysis**: Linear regression showed that participation in innovation-oriented coursework (e.g., project-based learning and ICT integration training) significantly predicted improvements in professional readiness scores ($\beta = 0.57$, $p < 0.01$).

2. Qualitative Findings

Thematic analysis of interview transcripts and observation notes yielded several important themes: **Theme 1: Experiential Learning Enhances Confidence** Participants reported that engaging in real classroom innovations, such as gamification, flipped classrooms, or cross-disciplinary projects, increased their self-efficacy and reduced fear of failure. **Theme 2: Barriers to Innovation** Several participants highlighted challenges, including limited access to digital infrastructure in schools and conservative attitudes among mentor teachers resistant to non-traditional methods. **Theme 3: Reflection and Growth.** Most interviewees described reflective journaling and peer feedback sessions as critical tools in recognizing their professional strengths and areas for growth. **Theme 4: Shift in Teacher Identity.** Pre-service teachers described a shift in how they viewed their role—from passive transmitters of knowledge to facilitators of student inquiry and creativity. **Theme 5: Need for Institutional Support.** Participants emphasized the importance of institutional encouragement and the availability of training resources to sustain innovative teaching

efforts.

3. Observational Results

Lesson observations confirmed that students who underwent innovation-focused training were more likely to: Use interactive teaching methods; Integrate digital media into instruction; Demonstrate adaptive behavior when managing diverse classroom needs; Engage students through inquiry-based and collaborative activities. Overall, the findings suggest that structured preparation for innovative pedagogical activities not only enhances specific teaching techniques but also cultivates broader professional qualities crucial for effective primary school teaching in the 21st century.

Discussion

The results of the study underscore the central role of innovative pedagogical training in the formation of key professional qualities among future primary school teachers. The findings align with contemporary educational theory, which emphasizes that teacher professionalization in the 21st century must go beyond content knowledge and encompass broader competencies such as digital fluency, creativity, adaptability, and critical self-reflection.

The Impact of Innovation-Based Training

The strong correlation observed between participation in innovation-oriented coursework and professional growth confirms that targeted pedagogical interventions can significantly enhance the readiness of pre-service teachers. This finding supports earlier research by Fullan (2011) and Hargreaves (2003), who argued that innovation in teacher education serves as a catalyst for professional renewal. The integration of project-based learning, digital tools, and active learning strategies enabled students to engage more deeply with both pedagogical theory and classroom realities.

Moreover, the qualitative data illustrated that hands-on involvement in innovative teaching practices—especially during practicum placements—fosters greater teacher self-efficacy. This is consistent with Bandura's (1997) theory of self-efficacy, which posits that mastery experiences are the most powerful source of confidence in one's capabilities.

Professional Identity Formation

One of the most significant insights from the qualitative interviews was the evolving perception of teacher identity. Participants increasingly saw themselves as co-creators of knowledge rather than mere transmitters. This paradigm shift indicates that innovation-driven pedagogical preparation can contribute not only to skill development but also to deep professional transformation. Similar trends have been noted in international studies (e.g., Darling-Hammond, 2021) that associate reflective and innovative training with the cultivation of a learner-centered professional ethos.

Barriers to Implementation

Despite the promising outcomes, several challenges hinder the full realization of innovation in teacher preparation. Institutional constraints—such as limited technological resources and conservative teaching cultures—can act as barriers to experimentation. The resistance of mentor teachers to non-traditional methods, as noted by several participants, highlights the need for holistic reform, including in-service teacher retraining and school-university partnerships that foster a culture of innovation.

Role of Reflective Practice

Another important theme that emerged was the role of reflection in consolidating professional qualities. Reflective journals and peer discussions not only supported metacognitive awareness but also enabled students to assess the impact of their pedagogical choices. This aligns with Schön's (1983) concept of the "reflective practitioner" and reinforces the idea that innovation must be accompanied by structured opportunities for introspection and feedback. The results suggest that teacher education curricula must be restructured to systematically embed innovation across all stages of training—from coursework to practicum. Universities should prioritize: Modular courses focused on educational technology and pedagogical innovation; Mentorship programs that model innovative teaching; Reflective assessment tools to evaluate student growth holistically. Furthermore, institutions should establish professional learning communities that encourage ongoing dialogue between researchers, faculty, school teachers, and students to co-construct innovative teaching frameworks [3,4].

Conclusion

This study has demonstrated that purposeful preparation for innovative pedagogical activities plays a decisive role in developing the professional qualities of future primary school teachers. The combination of quantitative and qualitative analyses confirms that innovation-oriented training enhances critical competencies such as creativity, adaptability, digital literacy, and reflective thinking—skills that are indispensable in addressing the complex demands of contemporary primary education. By engaging in experiential learning, implementing technology-enhanced strategies, and participating in reflective practices, pre-service teachers not only acquired practical teaching tools but also redefined their professional identity. The findings emphasize the importance of aligning teacher education curricula with the needs of 21st-century classrooms, where flexibility, learner-centered instruction, and continuous professional self-renewal are paramount. However, the study also highlights key challenges, including institutional resistance, inadequate resources, and the need for stronger mentorship systems. These barriers suggest that reform efforts must extend beyond university programs and involve collaboration with schools, policymakers, and educational stakeholders. In conclusion, developing the professional qualities of future primary school teachers requires a holistic, innovation-driven approach that integrates theory and practice, supports reflective growth, and prepares educators to thrive in rapidly changing educational environments. Embedding innovation at the heart of teacher education not only strengthens individual teaching capacity but also contributes to the broader goal of creating more responsive, inclusive, and future-ready primary education systems.

References:

1.Khyzhniak, I. A., Vlasenko, K. V., Viktorenko, I. L., & Velychko, V. Y. (2021). Training of future primary school teacher for use digital educational resources in their professional activities. Educational Technology Quarterly, 2021(1), 103-117. https://doi.org/10.55056/etq.23

2.Levy-Feldman, I. (2025). The Role of Assessment in Improving Education and Promoting Educational Equity. Education Sciences, 15(2), 224. https://doi.org/10.3390/educsci15020224

3.Varma, C., & Malik, S. (2024). Perspective Chapter: TVET in the 21st Century – A Focus on Innovative Teaching and Competency Indicators. IntechOpen. doi: 10.5772/intechopen.112516

4.Lawless, K. A., & Pellegrino, J. W. (2007). Professional Development in Integrating Technology Into Teaching and Learning: Knowns, Unknowns, and Ways to Pursue Better Questions and Answers. Review of Educational Research, 77(4), 575-614. https://doi.org/10.3102/0034654307309921 (Original work published 2007)