

INTEGRATIVE DEVELOPMENT OF PROFESSIONAL COMPETENCE OF FUTURE PRIMARY SCHOOL TEACHERS

Omonboyeva Meruyert Erkin kizi¹, Ravshan Madatov²

¹Faculty of preschool and primary training of Navoi State University
Teacher of the Department of primary education, Navoi, Uzbekistan
meruyerterkinova8@gmail.com

²Associate Professor, Department of Biology, Nizami National Pedagogical University of Uzbekistan, PhD. Tashkent, Uzbekistan

DOI: 10.63001/tbs.2025.v20.i04.pp1829-1837

Keywords

future teacher, professional competence, integrative development, interdisciplinary approach, primary education, pedagogical technologies, methodological preparation, innovative approach, digital education, reflexive activities.

Received on:

11-10-2025

Accepted on:

14-11-2025

Published on:

30-12-2025

ABSTRACT

This article analyzes the issues of developing the professional competence of future primary school teachers based on an integrative approach. It is scientifically proven that the integration process is not only a combination of pedagogical knowledge and skills, but also plays an important role in the formation of a student-centered educational model. The article shows that the complex use of interdisciplinary connections, digital educational resources, modern teaching technologies and practical exercises strengthens the methodological culture, reflexive thinking and readiness for innovative activities of future teachers. It also studies the didactic conditions, effective models and practical mechanisms for the formation of integrative competence, and analyzes the role of this approach in improving the quality of primary education.

The modern education system requires primary school teachers not only to possess solid pedagogical knowledge but also to be able to organize their professional activity on the basis of an integrative approach. Today's processes of globalization, the rapid development of digital technologies, and the strengthening of interdisciplinary connections necessitate new perspectives on teachers' professional activities. A prospective primary school teacher must not

only provide students with knowledge but also be able to develop their logical thinking, communicative literacy, and socio-emotional skills in a harmonious manner. Such a comprehensive approach ensures the integrative formation of professional competence.

The criteria for integrative development are determined by a teacher's methodological preparedness, pedagogical thinking, reflective culture, ability to apply

innovative technologies, and capacity to effectively establish interdisciplinary connections. Educational practice demonstrates that the professional maturity of a primary school teacher largely depends on their competence in designing and organizing lessons based on interdisciplinary integration. From this perspective, the integrative development of prospective specialists' professional preparation remains one of the most relevant directions in pedagogical science.

The theoretical and methodological foundations of forming integrative competence, its structure, role in the educational process, and practical mechanisms are analyzed. In addition, effective pedagogical technologies, instructional and methodological conditions, and the role of the modern educational environment that contribute to the comprehensive development of prospective primary school teachers' professional competence are examined from a scientific standpoint.

One of the most important factors that significantly influences the enhancement of a teacher's pedagogical mastery, qualifications, pedagogical abilities, and professional competence is continuous professional education and professional development. Today, active scholarly debates are being conducted within the scientific pedagogical community regarding the

essence, structural components, and development mechanisms of professional pedagogical competence. Reforming the education system should begin primarily at the level of primary education, since it is at this stage that a child's worldview, aesthetic taste, and intellectual potential are formed. Therefore, the most competent, experienced, and methodologically well-prepared teachers should be assigned to primary school classes. The processes of fundamental reform in higher education systems are also aimed precisely at achieving this goal [4; 58].

At present, the development of technologies for improving the methodological preparedness of prospective primary school teachers within the educational process is considered a pressing issue. *“For this purpose, pedagogical staff, particularly primary school teachers, are required to be individuals who meet modern demands, think independently, possess strong intellectual potential, have profound knowledge, a broad worldview, and solid methodological training”* [2].

It is well known that the foundation of knowledge is laid precisely at the primary education stage. Knowledge that serves as the basis for the formation of personality, consciousness, and worldview is also provided during this period. Therefore, the moral, ethical, and professional maturity of the primary school teacher plays a decisive role in the development of students as well-

rounded individuals. An analysis of research conducted by scholars shows that A. K. Markova, in her works, interprets didactic competence as a complex quality formed through analyzing the key pedagogical aspects that arise in the process of a teacher's professional activity, engaging in self-development, and evaluating the results of acquired knowledge, skills, competencies, and practical activities [6; 101].

In general, the conducted studies demonstrate the necessity of improving the methodological preparedness of prospective primary school teachers in accordance with contemporary requirements. *"First and foremost, enhancing teachers' methodological training requires the formation of objectively necessary knowledge, including an understanding of teachers' professional work, the characteristics of pedagogical activity, personality psychology, students' age-related characteristics, and their psychological and mental development"* [5; 162].

In her scientific research, B. S. Abdullayeva puts forward the following view: *"The professional capacity and educational level of a primary school teacher, deep knowledge of child psychology, and a*

thorough understanding of modern primary education methodology are of great importance in improving the quality of education. It is advisable to form essential skills in primary school students, raise the effectiveness of education to a new level, and introduce modern teaching methods and tools into practice" [1; 11].

Similarly, A. A. Kholiqov emphasizes in his research that *"it is necessary to continuously enhance the high level of professional training, qualifications, knowledge, cultural awareness, and moral-ethical standards of prospective teachers in line with modern requirements, and through the preparation of highly qualified specialists, to elevate the prestige and social status of pedagogical activity."*

The content of integrative education is aimed at harmoniously organizing interdisciplinary connections and constructing the learning process in a multidimensional, logically interconnected, and systematic manner. The integration process requires teachers to possess a high level of methodological literacy, apply creative approaches, and effectively utilize modern pedagogical technologies.

Table 1. Conceptual analysis and the theoretical principles of integrative education

No	Concept name	Content
----	--------------	---------

1	The principle of integrity	Organization of the educational process as a single system
2	Principle of activity	Student-teacher active cooperation
3	Meaningful harmony	Logical dependence of the content of Sciences
4	Practice orientation	Real-life application of knowledge.zation of the educational process as a single system
5	Contextual approach	Studntext

The structure of prospective primary school teachers' professional competence. The structure of professional competence includes methodological, communicative, technological, and reflective competencies.

These competencies are further developed through an integrative approach and strengthen the teacher's professional preparedness.

Table 2. Components of professional competence

№	Component	Content	Integrative development opportunities
1	Methodological competence	Lesson design and selection of methods.	Modular learning, interdisciplinary projects.
2	Communicative competence	Communication and pedagogical collaboration.	Integrative communication, language-technology connection.
3	Technological competence	Use of digital tools.	Digital integration, media education.
4	Reflexive competence	Analysis of activity.	Portfolios, monitoring, integrative assessment.

Practical mechanisms of the integrative approach are aimed at organizing educational activities in an interactive, technological and creative direction. These

mechanisms play an important role in the formation of the professional competence of the future teacher.

Table 3. Integrative development mechanisms

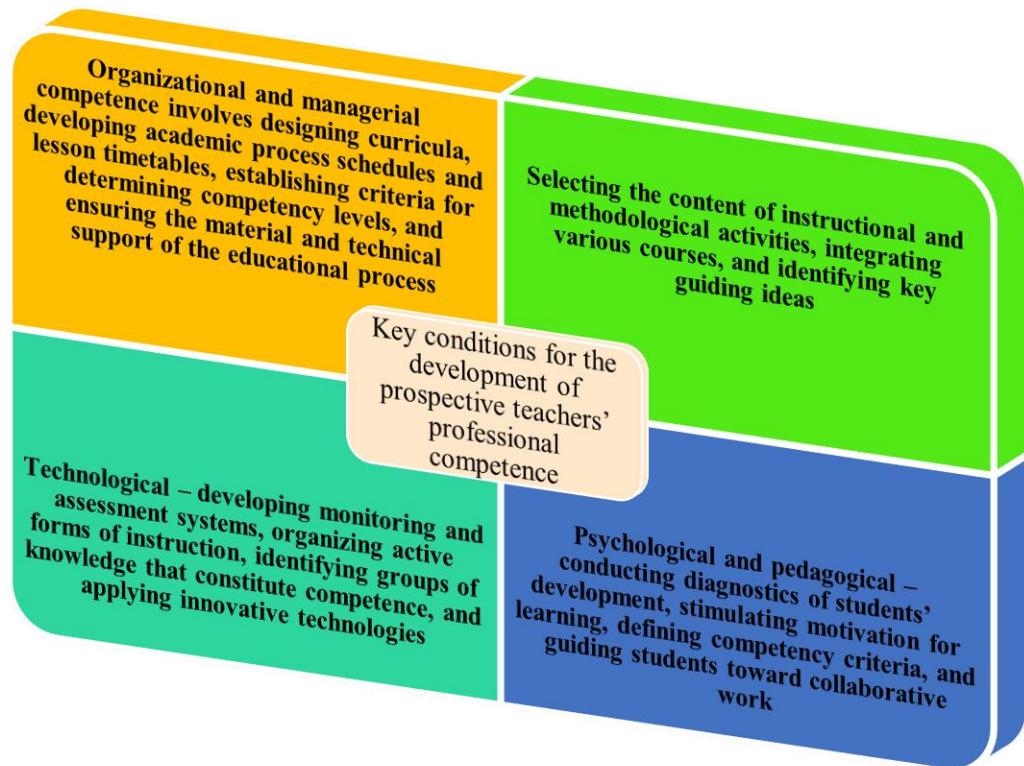
№	Mechanism	Practical content	Expected outcome
1.	Interdisciplinary projects	Mathematics, technology, nature connection.	Research skills are developed

2.	STEAM approach	Science-technology-art integration.	Creative thinking is strengthened
3.	Digital integration	Simulation, electronic textbooks.	Digital literacy is increased
4.	Reflective portfolios	Analysis of student work.	Self-assessment skills are developed

The cognitive component of a teacher's methodological competence includes possession of a system of methodological knowledge, awareness of the significance of this knowledge both for the teacher personally and for their professional activity and professional growth, as well as understanding its importance. The activity component, in turn, enables the implementation of the main types of methodological activity, the analysis and evaluation of their results, and the determination of the extent to which these results correspond to expected or planned

objectives, with the possibility of modifying them when necessary.

In modern socio-economic conditions, the problem of developing the professional competence of prospective teachers who possess the ability for free and active thinking, modeling the teaching and learning process, and designing and implementing new ideas and technologies in education and upbringing is of particular relevance. The main conditions for developing the professional competence of prospective teachers include the following:



The structure of a prospective teacher's professional competence is determined through their pedagogical skills, while these skills, in turn, are defined by a set of actions that develop gradually and are based on theoretical knowledge and aimed at solving pedagogical problems.

Today, every educator is required to be a comprehensively developed professional who meets the demands of the modern education system. In particular, a primary school teacher must possess not only theoretical knowledge but also practical, innovative, and psychological approaches in their professional activity. The primary school teacher plays a crucial role in shaping students' knowledge, skills, abilities, and competencies. A primary school teacher should understand the essence, structure, and

key criteria of innovative pedagogical activity; master the theoretical foundations and specific features of the technologies applied in teaching primary education subjects; know the ways of forming and managing students' cognitive activities; be able to apply individual and differentiated approaches to learners; implement such technologies as modular, problem-based, creative, didactic game-based, cooperative learning, and project-based learning in practice; effectively use modern information and communication technologies and multimedia tools; develop students' creativity, inquisitiveness, and independent thinking skills through small-group instruction; analyze scientific and methodological sources and use them effectively in the teaching process; introduce

advanced teaching tools and design new educational technologies based on them; analyze, evaluate, and improve their own pedagogical activity; and prepare for innovative activity by developing analytical, critical, creative, and independent thinking skills.

As a result of developing these skills, the prospective primary school teacher gains the ability to reveal students' individual potential while taking into account their personal development characteristics and to organize the educational process effectively.

In conclusion, the integrative development of the professional competence of prospective primary school teachers is considered one of the priority directions of the modern educational process. The integrative approach makes it possible to form not only subject-matter knowledge but also methodological, communicative, information-communication, and reflective competencies of teachers as a unified system. The research findings indicate that ensuring interdisciplinary integration, using digital resources, aligning learning activities with real-life situations, and applying innovative pedagogical technologies significantly enhance the quality indicators of prospective teachers' professional preparation.

The effectiveness of the integrative development process is primarily determined by a teacher's methodological thinking, openness to innovation, ability to

systematically design the educational process, and learner-centered approach. Therefore, the use of integrated curricula, practice-oriented training, and multi-component competency models in teacher education institutions is regarded as an important didactic condition. The integrative approach contributes to the comprehensive development of prospective teachers' professional competence, improves the quality of primary education, and enables the preparation of competitive teaching professionals within the modern education system.

At present, in the process of implementing the requirements of the Law of the Republic of Uzbekistan dated September 23, 2020, No. O'RQ-637 "On Education," the training of highly qualified pedagogical personnel is considered one of the most important priority areas. Accordingly, preparing knowledgeable, independent-thinking, creative, and competitive teachers is a key objective of today's educational policy. In fostering a new model of personality within the education system and ensuring the development of deeply knowledgeable individuals, the role of teachers' professional and methodological competence is invaluable. Harmonizing the theoretical principles of a subject with didactic approaches and deeply examining the factors influencing learners' intellectual

and cognitive development are of great importance.

For this reason, prospective teachers are required not only to possess methodological competence but also to be able to correctly assess the psychology of both learners and educators and to make appropriate pedagogical decisions in various situations. Thus, by developing teachers' socio-psychological and methodological competencies, it becomes possible to improve the quality of the teaching and learning process and to create broader opportunities for students' personal development.

List of literature used

1. Law of the Republic of Uzbekistan dated September 23, 2020, No. O'RQ-637 "On Education."

2. Available at:
<https://lex.uz/en/docs/5013007>

3. Abdullayeva, B. S. Improving the quality and effectiveness of primary education based on advanced pedagogical and information and communication technologies // Proceedings of the International Scientific Conference "Improving Quality and Effectiveness in Primary Education and Physical Education: Problems and Solutions". – Tashkent, May 25, 2017. – p. 11.

4. Ismailov, A. A. Theoretical and institutional foundations for improving the system of assessing students' educational achievements based on international requirements // Education and Innovative Research, 2022, No. 2.

5. Karimova, M., Tuychieva, R. (2019). The pedagogical basics of training students for professional, moral, and educational functions. Scientific Bulletin of Namangan State University, 1(10), 311–317.

6. Mirziyoyev, Sh.M. President of the Republic of Uzbekistan. We will build a free and prosperous, democratic state of Uzbekistan together. Speech delivered at the joint session of the chambers of the Oliy Majlis on the occasion of the inauguration as President of the Republic of Uzbekistan. – Tashkent: Uzbekistan, 2016. – 56 p.

7. Kuzmina, N. V., Zharinova, E. N. Research methods of educational systems: monograph. Russian Academy of Education, Leningrad State University named after A. S. Pushkin, et al. – Saint Petersburg: Publishing House of the NU "Center for Strategic Research", 2018. – 162 p.

8. Markova, A.K., Bakulin, I.I., Mikhailov, G.S. The correlation of professional abilities in decision-making and decision implementation: monograph. – Moscow: Public Education, 2003. – 101 p.

9. Akhmedova M.E. Research and application of textbooks in tutorials and manuals of higher education // Asian Journal

of Research in Social Sciences and Humanities, Xindiston, January 2022, Vol. 12, Issue 01, Pages: 165- 172.

10. Muminov K.A. Methods for Enhancing the Educational Process at Institutions of Higher Learning Based on

Foresight Technologies. // Current Approaches and New Research in Modern Sciences, International Scientific Online Conference. – 2025-yil, 27-yanvar. – P. 127–133. DOI: <https://doi.org/10.5281/zenodo.14748452>.