

ANNOTATION

of the dissertation by Assel Makhambetovna Omirzakova entitled “Pedagogical Conditions for Preparing Future Primary School Teachers for Educational and Methodological Work in Small-Scale Schools”, submitted for the degree of Doctor of Philosophy (PhD) in the educational program 6D010200 – Pedagogy and Methods of Primary Education

General description of the work. The dissertation research is devoted to determining the pedagogical conditions for preparing future primary school teachers for educational and methodological work in small-scale schools.

Relevance of the dissertation research. At the present stage, the education system of the Republic of Kazakhstan is undergoing fundamental modernization in the context of adaptation to global changes and integration into the world educational space. Along with imposing new requirements on the content of education and forms of its organization, this circumstance places improving the quality and accessibility of education among the most important national priorities. These objectives are specified in the national project “Educated Nation – Quality Education” and require systemic changes at all levels of education [1].

Small-scale schools located in rural areas are educational institutions requiring special attention within the framework of these transformations. This is due to the fact that they play a decisive role in ensuring the constitutional right to education for children living in socially, geographically, and economically disadvantaged conditions. At the same time, the range of problems accumulated in these schools is broad and structurally complex.

In his Address to the People of Kazakhstan dated September 8, 2025, the President of the Republic of Kazakhstan K.K. Tokayev paid special attention to the problems of education in small rural settlements. The Head of State noted that the quality of education in small-scale schools increases inequality between urban and rural areas and proposed ways to solve this problem. In particular, the need to develop digital content, introduce online courses, apply blended learning systems, and connect rural schools to new platforms such as “Qazaq Digital Mektebi” was emphasized. These measures represent an important state initiative aimed at ensuring equal access to education for students of rural small-scale schools and reducing the educational gap between urban and rural areas [2].

Small-scale schools often face such problems as a low number of students, combined teaching of children of different age groups in one classroom, shortage of teaching staff, and insufficient material and technical resources. Such features indicate the inefficiency of organizing the educational process according to the traditional model. In addition, factors such as the multidisciplinary workload of teachers, difficulties in adapting the educational content, lack of teaching materials, and absence of high-quality methodological support negatively affect the quality of the educational process.

Another pressing problem in the functioning of small-scale schools is the lack of alternative opportunities within the educational environment. The complete absence of supplementary education organizations in remote rural districts or the limited social infrastructure prevents students from developing individual abilities, receiving career guidance, and freely adapting to the social and cultural environment. This situation creates a limited educational environment that hinders the intellectual and personal development of rural schoolchildren.

In addition, the established pedagogical practice in small-scale schools is, in most cases, based on the didactic model of large full-scale schools. Such stereotypical approaches lose their

effectiveness in the context of teaching in small multi-age classes. This indicates the insufficiency of pedagogical solutions aimed at adapting the content and methodology of teaching, as well as the weakness of methodological support. Despite the fact that the current situation requires changes in the nature of interaction between teacher and student, the existing methodological approaches are insufficiently adapted to these changes.

Small-scale schools (SSS) constitute an important part of the educational system of rural regions in Kazakhstan, and the majority of them are institutions of primary education. The specificity of SSS lies in the small number of students, the joint education of children of different age groups within one classroom, and the need for a special organization of the educational process. In this regard, the system of teacher education naturally requires greater attention to the development of future teachers' abilities to effectively organize the learning process, apply methods of working with multigrade classes, and adapt to the socio-cultural environment of rural schools. The clear manifestation of these features makes the issue of training professional staff for modern small-scale schools especially relevant.

Degree of scientific development of the research problem. The problem of preparing teaching staff for professional activity in the conditions of small-scale schools has been considered in the studies of domestic and foreign scholars from various perspectives. Scientific works have examined the organizational features of small-scale schools, methods of teaching in combined classes, the educational environment of rural schools, as well as issues of professional training of future teachers.

The problem under study is reflected in the works of foreign and Russian scholars such as R. Kvalsund [3], H. Bjørnsrud [4], S. Nilsen [5], K. Solstad [6,7], A. Little, A. Raggl [8], R. Smit, E.K. Hyry-Beihammer [9], M. Fargas-Malet, C. Bagley [10], O.N. Tyuleneva [11], N.V. Baigulova [12], E.A. Bulgakova [13], and others.

In addition, within the framework of the study, the works of Kazakhstani scholars who investigated the didactic and methodological aspects of primary education were used, including K. Aimagambetova [14], A.S. Amirova [15], Ə.E. Zhumabayeva [16], Z.Sh. Aidarova [17], K. Zhedelov [18], N.B. Rakhmetova [19], K.A. Sarbasova [20], E. Auelbekov [21], E. Uaidullakzy [22], and others.

According to contemporary studies, issues related to the formation of professional and specialized competencies of future primary school teachers, as well as the effective organization of students' learning activities, were considered in the works of G.S. Ayapbergenova [23], R.K. Izmagambetova [24], L.M. Iskakova [25], Zh.E. Zhumash [26], Zh.Sh. Zhiyasheva [27], M.S. Nurke [28], G.K. Kydyrbayeva [29], A.B. Alseitova [30], R.S. Ismagulova [31], Zh.S. Ailauova [32].

Among the scholars who studied the problem of professional training of future primary school teachers, the works of G.B. Akhataeva [33], M.Z. Dzhanbubekova [34], G.T. Abdullina [35], D.Zh. Kishibayeva [36], M.Zh. Sultanbek [37], M.N. Ospanbekova [38], A.M. Usenova [39], A. Syzdykbayeva [40], A. Zhunusbekova [41], Y.Zh. Konakbayeva [42], A.N. Umirbekova [43], N.T. Sartayeva [44], T.O. Karatayeva [45], N.S. Kozhamkulova [46], B.M. Baimukhanbetov [47], A.D. Ansabayeva [48], and others should be noted.

The peculiarities of organizing the educational process in small-scale schools of Kazakhstan generate a number of problems that are being addressed at various levels. Due to the complexity of this issue, discussions have even arisen within the scientific community regarding the possible closure of small-scale schools. In this regard, several major problems in organizing the educational process in small-scale schools can be identified. First of all, it is necessary to note the insufficiency

of methodological recommendations and the absence of specialized pedagogical methods designed for small multi-age combined classes. This reduces the effectiveness of the educational process. Secondly, due to the low motivation of qualified specialists to work in rural areas, there are cases where certain subjects are taught by teachers without the appropriate subject specialization. Such a situation leads to a decline in students' academic performance. In addition, weak material and technical resources, the absence of workshops, laboratories, and libraries, as well as limited access to the Internet, negatively affect the quality of education in small-scale schools. To solve these problems, it is necessary to provide comprehensive methodological, кадровая? material and staffing support measures.

The study of the specific features of education in small-scale schools of the Republic of Kazakhstan has become the subject of a number of scientific studies. Thus, in the dissertation research by G.K. Shugaeva entitled "Development of Rural Small-Scale Schools in Kazakhstan (1930–1960)," the historical stages of the formation and development of small-scale schools in Kazakhstan during the period from 1930 to 1960 are described. The study proposes a set of organizational and pedagogical conditions for developing the readiness of future teachers to work in rural small-scale schools [49]. In addition, the dissertation studies of Kazakhstani scholars G.U. Urazambetova [50], R.B. Akhmedova [51], and G.S. Berkenova [52], devoted to the problems of small-scale schools, served as the basis for our research.

The issues of training teaching staff for work in small-scale schools were scientifically substantiated in the studies of Z. Adilgazinov [53]. The specifics of organizing simultaneous instruction in several classes, selecting the content of teaching individual subjects, as well as effective methods for organizing single-subject and single-topic lessons were investigated in the works of M. Saipin [54] and Ə.E. Zhumabekova [55].

These studies note that young specialists face difficulties in the practical application of the acquired knowledge. In this regard, it becomes evident that the process of developing teachers' professional mastery requires a high level of responsibility, and these problems should be comprehensively addressed within the system of professional training, educational content, and pedagogical practice.

In our study, the work of Zh.K. Astambayeva and G.I. Uaiyssova [56] was used as a fundamental source. This work presents conceptual provisions aimed at the professional development of primary school teachers. At the same time, significant changes that have taken place in recent years in the education system of Kazakhstan are focused on meeting the socio-economic and cultural needs of modern society, improving the quality of education, and ensuring the effectiveness of the educational process.

This issue is also of particular importance for small-scale schools (SSS), since despite the specific features of their educational environment and limited resources, ensuring high-quality education for students remains one of the priority tasks.

Issues related to the professional training of teachers in the context of modern education were examined in the scientific studies of Zh. Stambekova [57], A.B. Danikeyeva [58], N.S. Kozhamkulova [59], R.O. Kenzhetayeva [60], G.S. Karimova [61], D.T. Belessova [62], and other scholars. However, in these PhD-level studies, the preparation of future primary school teachers for educational and methodological work in small-scale schools has not been sufficiently considered as an integral pedagogical system of professional training that includes the unity of structure, content, models, pedagogical conditions, and implementation mechanisms.

Moreover, the analysis of existing scientific research demonstrates that the problem of preparing future primary school teachers for educational and methodological work in the

conditions of small-scale schools has not yet received comprehensive scientific and theoretical substantiation as an integral pedagogical system encompassing the interrelation of structure, content, models, pedagogical conditions, and mechanisms for implementing professional training.

The relevance of the research is determined, first, at the socio-pedagogical level by the need to prepare future primary school teachers who are capable of effectively organizing professional activities in the conditions of small-scale schools, possess teaching technologies for combined classes, and are able to flexibly plan educational and methodological work. Second, at the scientific-theoretical level, the relevance is обусловлена? better: determined by the need to clarify the theoretical and methodological foundations, structure, content, and pedagogical conditions for preparing future primary school teachers for educational and methodological work in small-scale schools. At the same time, the problem of preparing future primary school teachers for educational and methodological work in the conditions of small-scale schools has not yet been sufficiently studied from the perspective of its structural-content organization, pedagogical conditions, and implementation mechanisms.

During the research, the following scientific and pedagogical contradictions were identified:

- between the social demand for a teacher adapted to professional activity in the conditions of small-scale schools and the insufficient level of educational and methodological training of future teachers;

- between the necessity of organizing instruction in combined classes and the insufficient practical and methodological preparedness of future teachers in this area;

- between the need to improve the scientific and theoretical foundations for preparing future primary school teachers for educational and methodological work in small-scale schools and the insufficient development of the structural-content model and pedagogical conditions of such preparation;

- between the necessity of introducing a practice-oriented methodological system into the process of training future teachers at universities and the insufficiency of effective mechanisms for its implementation.

The resolution of these contradictions required a theoretical substantiation of the problem of preparing future primary school teachers for educational and methodological work in small-scale schools and its experimental verification. This, in turn, determined the scientific problem of the dissertation research and served as the basis for selecting the research topic: **“Preparation of Future Primary School Teachers for Educational and Methodological Work in Small-Scale Schools.”**

Object of the research: the process of preparing future primary school teachers for educational and methodological work in small-scale schools.

Subject of the research: pedagogical conditions for preparing future primary school teachers for educational and methodological work in small-scale schools.

Purpose of the research: to theoretically substantiate the pedagogical conditions and structural model for preparing future primary school teachers for educational and methodological work in small-scale schools and to test them through experimental research.

Research hypothesis: if the pedagogical conditions and structural model for preparing future primary school teachers for educational and methodological work in small-scale schools are theoretically substantiated, developed, and implemented, then the level of professional competence of future primary school teachers will increase, since they will ensure the necessary professional preparation for educational and methodological work in the conditions of small-scale schools.

Research objectives:

1. To determine the theoretical and methodological foundations of the process of preparing future primary school teachers for educational and methodological work in small-scale schools, as well as to reveal the essence of the concepts “small-scale school,” “educational and methodological work,” and “preparation for educational and methodological work in small-scale schools.”

2. To identify the components, criteria, indicators, and levels of preparation of future primary school teachers for educational and methodological work in small-scale schools.

3. To develop pedagogical conditions for preparing future primary school teachers for educational and methodological work in small-scale schools.

4. To develop a structural model for preparing future primary school teachers for educational and methodological work in small-scale schools.

5. To experimentally verify the effectiveness of the developed pedagogical conditions and structural model for preparing future primary school teachers for educational and methodological work in small-scale schools.

Sources of the research: official regulatory documents and state programs of the Republic of Kazakhstan in the field of education; philosophical, psychological, and pedagogical works of domestic and foreign scholars revealing the essence and content of the research problem; philosophical, psychological-pedagogical, and encyclopedic dictionaries and reference books; materials of international and national scientific-practical conferences; educational and methodological literature related to the research problem, as well as the pedagogical and research experience of the author.

Research methods:

– theoretical methods: analysis and systematization of scientific-pedagogical literature and methodological sources related to the research problem; study of educational standards, curricula, regulatory documents, and advanced pedagogical experience; comparison, generalization, and modeling;

– empirical methods: purposeful pedagogical observation, interviews, organization of pedagogical experiments, and the use of diagnostic tools and methods, including “The Methodology for Studying the Educational Motivation of University Students” by T.I. Ilyina, “The Methodology for Determining the Main Motives for Choosing a Profession” by E.M. Pavlyutenkov, and “The Methodology for Determining the Level of Personal Reflexivity” by A.V. Karpov;

– mathematical and statistical methods: the research results were processed using the SPSS software program. During the mathematical and statistical analysis, descriptive statistics (mean values and percentage indicators), Student’s t-test, and analysis of variance (ANOVA) were applied.

Research base: NJSC “Korkyt Ata Kyzylorda University.”

Research stages. The dissertation research was carried out in several interrelated stages:

At the first stage of the research (2018–2019), the relevance and scientific novelty of the topic were substantiated. For this purpose, a comprehensive analysis of pedagogical literature, including domestic and foreign dissertation studies, was conducted. The specific features of small-scale schools, as well as modern approaches to the content and organization of the educational and methodological process in primary education, were identified. The object, subject, purpose, and objectives of the research were determined, and the initial scientific hypothesis was formulated. The analytical work covered the current regulatory and legal framework (the Laws of the Republic of Kazakhstan “On Education” and “On the Status of a Teacher,” the State Compulsory

Educational Standard, and educational programs). As a result of this stage, the main scientific approaches, such as systemic, personality-oriented, competence-based, and integrative approaches, were identified, and the methodological framework of the research was developed.

At the second stage of the research (2019–2020), experimental work was carried out. The main objective of this stage was to determine the level of readiness of future primary school teachers for effective professional activity in the conditions of small-scale schools. In this regard, diagnostic studies were organized, and significant empirical data were collected.

A summative experiment was conducted to determine the level of readiness of future primary school teachers to work in the conditions of small-scale schools. During the experimental work, diagnostic tasks, questionnaires, and observation tools aimed at assessing students' professional training, methodological competence, and organizational abilities were used. Pedagogical conditions adapted to the environment of small-scale schools were developed, and their effectiveness and scientific validity were determined. At this stage, the elective course "Theory and Methodology of Teaching in Small-Scale Primary Schools" was also developed and implemented.

At the third stage of the research (2020–2025), formative and final experiments were conducted in order to verify the proposed structural model. During the experiment, the dynamics of students' readiness for educational and methodological work in the conditions of small-scale schools were monitored, and a comparative analysis of the obtained results was carried out. The results of the experimental work were processed and interpreted from both quantitative and qualitative perspectives. As a result, the effectiveness of the proposed pedagogical conditions and structural model was proven. At the final stage, the dissertation text was prepared, discussed at the department and scientific seminars, and revised and supplemented in accordance with experts' comments.

Scientific novelty and theoretical significance of the research:

1. The concept of "preparation of future primary school teachers for educational and methodological work in small-scale schools" was clarified, and the components, criteria, indicators, and levels of the studied preparation were identified.

2. The pedagogical prerequisites and the current state of preparation of future primary school teachers for educational and methodological work in small-scale schools were analyzed, and the scientific and methodological foundations for its improvement were determined.

3. A structural-content model for preparing future primary school teachers for educational and methodological work in small-scale schools was scientifically substantiated and developed, including motivational, content-value, and reflective components.

4. Pedagogical conditions, a set of educational and methodological materials, and a system of practice-oriented methodological support aimed at preparing future primary school teachers for educational and methodological work in small-scale schools were developed.

The practical significance of the research is characterized by the development of a comprehensive system of educational and methodological tools that ensure the professional preparation of future primary school teachers for educational and methodological work in small-scale schools.

Within the framework of the research, the following results were achieved:

– the elective course "Theory and Methodology of Teaching in Small-Scale Primary Schools" was developed and implemented into the educational process;

– the teaching manuals "Content and Methodology of Education in Small-Scale Primary Schools" and "Fundamentals of Education in Small-Scale Schools under the Conditions of

Updated Educational Content” were prepared, reflecting the specific features of organizing the educational process in small-scale schools;

- a national webinar for teachers and students on the topic “Current Issues in Organizing the Educational Process in Small-Scale Schools under the Conditions of Updated Educational Content” was organized;

- the methodological guide “Industrial-Pedagogical (Pre-Diploma) Practice in Small-Scale Schools” was prepared (within the framework of the educational program 6B01303 – “Pedagogy and Methodology of Primary Education”).

The proposed materials can be used in the process of training future teaching professionals at higher educational institutions, as well as in the professional development system for primary school teachers working in small-scale schools. The comprehensive use of the developed materials contributes to improving students’ professional training and ensures effective pedagogical activity in the conditions of rural schools.

Main provisions of the dissertation research submitted for defense.

1. The systematization of the theoretical and methodological foundations for preparing future primary school teachers for educational and methodological work in the conditions of small-scale schools, as well as the clarification of the content of the concepts “small-scale school,” “educational and methodological work,” and “preparation for educational and methodological work,” constitute the scientific and methodological basis of the research.

- A small-scale school is a general education institution with a flexible learning structure that forms a special educational environment of pedagogical interaction due to the limited number of students and the organization of instruction in combined classes.

- Educational and methodological work is an integral pedagogical system that ensures the planning, organization, management, and evaluation of the educational process in combined classes, based on the didactic adaptation of educational content and the application of effective teaching methods.

- The preparation of future teachers for educational and methodological work is a systematic professional training process implemented in higher education institutions and aimed at developing students’ competencies in designing, organizing, and evaluating the educational process in the conditions of small-scale schools.

2. The effectiveness of preparing future primary school teachers for educational and methodological work in small-scale schools is ensured through the systematic implementation of organizational-pedagogical, educational-methodological, technological, and integrative-differentiated pedagogical conditions. These conditions contribute to improving the professional and methodological training of future teachers through practice-oriented learning, modeling pedagogical situations, interdisciplinary integration, methodological support, and the integration of pedagogical practice.

3. The structural-content model of preparing future primary school teachers for educational and methodological work in small-scale schools is considered on the basis of the unity of motivational-value, cognitive-methodological, and activity-reflective components and is characterized by a system of corresponding criteria and indicators.

4. The teaching manuals “Content and Methodology of Education in Small-Scale Primary Schools” and “Fundamentals of Education in Small-Scale Schools under the Conditions of Updated Educational Content,” the elective course “Theory and Technology of Teaching in Small-Scale Schools,” multilevel calendar-thematic plans, and methodological recommendations contribute to improving the professional and methodological training of future teachers and developing their competencies for the effective organization of the educational process in small-scale schools.

The reliability and validity of the research results and conclusions are ensured by the scientific substantiation of the theoretical and methodological approaches of the study; the correspondence of the research content to its purpose, objectives, and scientific hypothesis; the internal logical consistency of the scientific framework; the comprehensive application of theoretical and empirical methods of pedagogical research; the systematic organization of experimental work; the qualitative and quantitative analysis of the obtained data; as well as the identified positive dynamics in the levels of readiness of future primary school teachers for educational and methodological work in the conditions of small-scale schools.

The approbation and implementation of the research results were carried out in the process of scientific research and pedagogical activities. Based on the results of the study, 12 scientific works were published, including:

Four articles published in scientific journals recommended by the Committee for Quality Assurance in Science and Higher Education of the Ministry of Science and Higher Education of the Republic of Kazakhstan:

- “Bulletin of Toraighyrov University. Pedagogical Series” (2021, 2022);
- “Science and Life of Kazakhstan” (2019, 2020).

Two articles published in scientific journals indexed in the international Scopus/Web of Science databases:

- International Journal of Evaluation and Research in Education (2025);
- International Journal of Information and Education Technology (2025).

One article published in an international scientific journal:

- Journal of Infrastructure, Policy and Development (2024).

Two teaching manuals were published based on the research results:

- “Content and Methodology of Education in Small-Scale Primary Schools” (2021);
- “Fundamentals of Education in Small-Scale Schools under the Conditions of Updated Educational Content” (2021).

The research results were implemented in the educational process of higher educational institutions, pedagogical practice bases, and the system of training future primary school teachers. In addition, within the framework of the research, an elective course, methodological recommendations, and samples of multilevel calendar-thematic plans were developed and tested during the experimental work.

Structure of the dissertation. The dissertation research consists of an introduction, two chapters, a conclusion, a list of references, and appendices. The total volume of the dissertation is 203 pages and includes 199 references, 23 tables, and 14 figures.