ABSTRACT

of the dissertation of Kinzhibayeva Fariza Bagitovna on the topic «Preparation of students for the implementation of the continuity of preschool and primary mathematical education» for the Doctor of Philosophy degree (PhD) in speciality 8D013 - Training of teachers of non-core education (6D010200 - Pedagogy and methods of primary education)

Research theme: Preparation of students for the implementation of the continuity of preschool and primary mathematical education.

The purpose of the research: theoretical substantiation and development of a methodological system for preparing students for the implementation of the continuity of preschool and primary mathematical education and checking their effectiveness.

The objectives of the research:

- to define the theoretical and methodological foundations of preparing students for the implementation of the continuity of preschool and primary mathematical education;
- to reveal and clarify the essence and structure of the concepts of "preparing students for the implementation of the continuity of mathematical education" and "readiness for the implementation of the continuity of preschool and primary mathematical education".
- to develop a structural and content model for preparing students for the implementation of the continuity of preschool and primary mathematical education;
- to develop and experimentally test a methodological system for preparing students for the implementation of the continuity of preschool and primary mathematical education and formulate evidence-based proposals.

Research methods: *theoretical* (analysis of philosophical, psychological, and pedagogical scientific and methodological literature, collection of best practices, generalization, comparison, classification, specification, design of results, modeling); *empirical* (questionnaire, diagnosis, observation); *statistical* (mathematical and statistical processing of the results, monitoring, examination).

The main provisions for defense (proven scientific assumptions and other conclusions which are considered as new knowledge):

1. Psychological-pedagogical and scientific-methodological substantiation of the possibility of preparing students for the implementation of the continuity of preschool and primary mathematical education based on the selection and combination of methodological approaches to research.
2. The concretized essence of the concepts "preparing students for the implementation of the continuity of mathematical education" and "readiness for the implementation of the continuity of preschool and primary mathematical education".
3. Structural and content model of preparing students for the implementation of the continuity of preschool and primary mathematical education, tested in experimental work; this model can serve as a scientifically based on methodological guide for the country's pedagogical universities.
4. Preparation for the implementation of the continuity of preschool and primary mathematical education is carried out by a consistent transition to the pedagogical

process of the university of the methodological system of obtaining knowledge, which is: the elective course "Theory and Methods and Teaching Methods in Grade 0 (primer book, the world around, Mathematical literacy, Musical literacy)", a teaching aid for students of PMSE "Methodology for the implementation of continuity in mathematical education (pre-school training - primary classes)", a collection of "Continuity of pre-school and primary mathematical education" (pre-school training - primary classes).

Justification of the novelty and significance of the results obtained:

The degree of novelty of each scientific result and conclusion formulated in the research work is as follows:

The novelty of the first result is determined by the refinement of the theoretical-methodological foundations of preparing students for the implementation of the continuity of preschool and primary mathematical education;

The novelty of the second result is during the analysis of philosophical, psychological, pedagogical and scientific-methodical works, the essence of the concepts "preparing students for the implementation of the continuity of mathematical education" and "readiness for the implementation of the continuity of preschool and primary mathematical education" were analyzed and concretized.

The novelty of the third result is the development of a structural-content model, which defines the components, criteria, and indicators of preparing students for the implementation of the continuity of preschool and primary mathematical education and the levels of its achievement.

The novelty of the fourth result is the development of a methodological system for preparing students for the implementation of the continuity of preschool and primary mathematical education: an elective course "Theory and methods of teaching in Grade 0 (primer book, the world around, mathematical literacy, musical literacy)", a teaching aid "Methods of implementation Continuity in Mathematical Education (Pre-School Training - Primary Classes)" and a collection of exercises for students "Continuity of Pre-School and Primary Mathematical Education" (Pre-School Training - Primary Classes) and the results of the study.

Compliance with the directions of science development or state programs:

The issues of the need for the continuity of preschool and primary education were raised in the Law of the Republic of Kazakhstan "On Education", in the National Project "Quality Education "Educated Nation", in the National Development Plan of the Republic of Kazakhstan until 2025, in the concept of education development of the Republic of Kazakhstan for 2022-2026. The content of the state educational standards of education of the Republic of Kazakhstan, both preschool and primary, is focused on solving several problems, one of which is to ensure continuity using common approaches and concepts, to create equal starting opportunities for the child's physical, psychological, emotional, social readiness for schooling.

The training of highly qualified, in-demand specialists who are ready to implement continuity in preschool and primary education is considered the main importance for our study. And it aims not only to teach teachers to develop their pedagogical activity but also to develop their desire for self-education and independence in real professional activities to implement the continuity of preschool and primary education. New demands of society are aimed at professionalism and

socially determined requirements for a modern teacher as a person. The formation of the expected specialists occurs holistically and consistently. Therefore, the search for theoretical and practical solutions to the problem of training specialists for the implementation of the continuity of preschool and primary mathematical education demonstrates a close connection with state programs for the development of education and science in the Republic of Kazakhstan

Description of the doctoral student's contribution to the preparation of each publication.

There were 13 articles published on the content of the research work, of which 2 publications are included in the Scopus database:

1. Evaluation of teachers' views on the use of learning technologies in mathematics lessons in preschool and primary schools. World Journal on Educational Technology: Current Issues Volume 13, Issue 4, (2021) p.707-720. https://journal.uny.ac.id/index.php/cp/article/view/43641 (Co-authored by: Syzdykbayeva A., Akpayeva A., Ageyeva L, Mynzhassarova M., Baykulova A). (Doctoral student contribution in writing the article - 75 %);

2. Training of future teachers for the implementation of continuity of pre-school and primary mathematical education. Cakrawala Pendidikan, 2022, 41(2), p.531-540. https://doi.org/10.18844/wjet.v13i4.6257 (Co-authored by: Akpayeva A., Yergalieva G., Mynzhassarova M.). Doctoral student contribution in writing the article - 85%;

And 4 of them are articles in publications approved by the Committee for Control in the Field of Science of Higher Education of the Ministry of Science of Higher Education of the Republic of Kazakhstan:

3. Проблемы преемственности в содержании дошкольного и начального математического образования. Scientific and methodological journal, series "Pedagogy and Psychology" of the Kazakh National Pedagogical University named after Abay, Almaty, December 2018, pp.108-115. (Co-author: Akpaeva A.B.) Doctoral student contribution in writing the article - 80%;

4. Formation of teachers' readiness to realize The continuity of preschool and primary education. In the conditions of updated education content. Proceedings of the National Academy of Sciences of the Republic of Kazakhstan, series "Social and Humanitarian Sciences". ISSN 2224-5294, 2(324), March-April 2019, pp. 208-213 Doctoral student contribution in writing the article - 100%;

5. Анализ подготовки студентов к реализации преемственности дошкольного и начального математического образования. Bulletin, series "Pedagogy", PSU named after S. Toraigyrov, Pavlodar, № 3, 2020, pp. 87-95 (Co-authors: Zemlianskaia E.N., Akpaeva A.B.). Doctoral student contribution in writing the article - 80%;

6. Педагогические подходы к реализации преемственности дошкольного и начального образования. Bulletin, section "Education", subsection "Pedagogical Sciences", KazNatsZhenPU, Almaty, №. 3 (83) 2020, P. 167-177. (Co-author: Akpaeva A.B.). Doctoral student contribution in writing the article - 80%;

Also, there were 3 articles published in the materials of foreign and domestic international conferences:

7. Система работы учителя по адаптации первоклассников к школе. Sustainable development: society, ecology, economy: materials of the XV international scientific conference; in 4 hours/ed. A.V. Semenova, N.G. Malyshev. - M .: ed. CHOUVO "MU them. S.Yu. Witte", 2019. Part 2. - 677 p. (Co-authors: Ischanova G.E, Uteulieva A.K.) Doctoral student contribution in writing the article - 90%;

8. К вопросу о готовности будущего педагога к обеспечению преемственности дошкольного и начального школьного образования. Wissenschaftliche Ergebnisse und Errungenschaften: 2020: der Sammlung wissenschaftlicher Arbeiten "ΛΌGOΣ" zu den Materialien der internationalen wissenschaftlich-praktischen Konferenz (B. 3), 25. December 2020. München, Deutschland: Europäische Wissenschaftsplattform. S. 47-50 Contribution of the doctoral student in writing the article - 100%;

9. Проблема преемственности дошкольного и начального образования в условиях реализации обновленного содержания образования. The driving force of science and trends in its development: a collection of scientific papers “Scientia” with proceedings of the i international scientific and theoretical conference (vol. 4), January 29, 2021. Coventry, United Kingdom: European scientific platformc p. 82-85 (Co-author: Akpaeva A.B.). Doctoral student contribution in writing the article - 80%;

Textbooks, educational publications, and monographs-4:

10. Основы математики in the Russian language: Workbook №. 1, 2. For children of the preschool preparation group (class) (from 5 years old) according to the Standard Curriculum of Preschool Education and Training / Akpaeva A.B., Lebedeva L.A., Kinzhibaeva F.B. - Almaty: “Almatykitap baspasy”, 2022. - 40 p.: ill. (Co-authors: Akpaeva A.B., Lebedeva L.A.) Doctoral student contribution in writing the article - 40%;

11. Математика негіздері in the Kazakh language: Workbook №. 1, 2. For children of the preschool preparation group (class) (from 5 years old) according to the Standard Curriculum of Preschool Education and Training / Akpaeva A.B., Lebedeva L.A., Kinzhibaeva F.B. - Almaty: “Almatykitap baspasy”, 2022.- 40 p.: (Co-authors: Akpaeva A.B., Lebedeva L.A.). Doctoral student contribution in writing the article - 40%;

12. Educational and methodological manual for students of PMSE «Методика реализации преемственности в математическом образовании (предшкольная подготовка-начальные классы)» Doctoral student contribution in writing the article - 100%;

13. Collection of exercises «Преемственность дошкольного и начального математического образования» (предшкольная подготовка-начальные классы). (Co-author: Akpaeva A.B.) Doctoral student contribution in writing the article - 80%;