



REFEREE REPORT

Of foreign scientific advisor for the dissertation work of Zhumabayeva Zhazira Amanzholkyzy on the theme "Teaching the subjects of elementary education by metasubject approach" for the degree of "Doctor of Philosophy" (PhD) in the speciality 6D010200 - "Pedagogy and Methodology of Primary Education"

1. The importance and relevance of the research

The purpose of the State Program for the Development of Education and Science in the Republic of Kazakhstan for 2020-2025 is to increase the global competitiveness of Kazakhstan's education and science and to educate and train the individual on the basis of universal values. The tasks are shown as "... modernization of pedagogical education, ensuring the intellectual, spiritual, moral and physical development of students". Implementation of these tasks set out in the program is one of the key issues.

New social demands, reflecting the transition of Kazakhstan from an industrial society to a post-industrial information society, are aimed at the formation of universal learning activities in the general education system. The processes of globalization, informatization, acceleration of the introduction of new scientific innovations, rapid modernization of knowledge and professions offer the requirements of high professional mobility and continuing education.

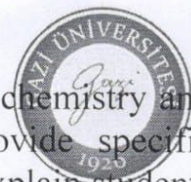
New social demands define educational goals as the general cultural, personal and cognitive development of students, which provide the key competencies of education as "teaching to learn", while agreeing with Kant's view that "it is not necessary to teach thoughts, it is necessary to teach thinking." In fact, the ability to work with information is now at the forefront. In today's world labor market, successful employees are required not only to master a specific set of skills and competencies, but also to master the direct skills. The most important of them is the ability to quickly adapt to the constantly changing conditions of the organizational environment and effective self-education.

It is known that the world we live in is very complex to understand, and in many cases the knowledge acquired in schools and universities is insufficient. This is because for many years we have been studying scattered subjects that have nothing to do with each other, without establishing a definite connection between them. At present, there is a hope that the situation with the introduction of new standards of general education in schools will change radically, which will lay the foundation for the requirements for meta-subject learning outcomes as a new platform.

Deepening our own subject specialization, we sometimes do not pay attention to the connection between other scientific disciplines and academic disciplines. In particular, there is a deep difference between the representatives

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of the humanities and natural sciences. For example, teachers of chemistry and physics, history and literature, mathematics, and physics provide specific knowledge only in the subject they teach, and they often do not explain students how the subject relates to other subjects, how it can be demonstrated, what skills they develop. Answering these questions requires coordinated meta-subject work and the introduction of a meta-subject approach to traditional curricula.

Therefore, the dissertation of Zh.A. Zhumabayeva on the theme "*Teaching the subjects of elementary education by metasubject approach*" is relevant today, as the problem of meta-subject teaching of primary education in science is a requirement of society.

2. Reliability and validity of the theoretical and practical results, their novelty

The researcher Zh.A. Zhumabayeva has achieved the following scientific results during the dissertation:

1. The scientific-theoretical and methodological bases of meta-subject teaching of primary education are defined, the meaning of the concepts "meta-subject", "meta-subject teaching" as a philosophical, psychological and pedagogical category is clarified.

2. Structural and content model with defined components, criteria, indicators of meta-subject teaching in primary education has been developed and scientifically substantiated.

3. The concept of meta-subject teaching of primary education has been developed.

4. Methodological complex of meta-subject teaching of primary education was prepared: the program of scientific-methodical seminar for primary school teachers "Methods of meta-subject teaching of primary education", a special course program for students "Meta-subject approach to primary education", primary school samples of metasubject tasks for students were prepared and tested.

3. The scientific and practical importance of the results

In determining the scientific-theoretical and methodological basis of meta-subject teaching of primary education, the works of domestic and foreign scientists were analyzed in terms of themes; the meaning of the concepts of "meta-subject", "meta-subject teaching" was clarified. A structural and content model of meta-subject teaching of primary education has been developed.

Methodological complex of meta-subject teaching of primary education: the program of scientific-methodical seminar for primary school teachers on "Methods of meta-subject teaching of primary education", a special course program for students "Meta-subject approach to primary education"; samples of metasubject tasks for primary school students were prepared. The results of the study can be used in the educational process in higher and secondary special pedagogical schools, secondary schools, in the educational process of

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professional development training centers.



4. Improvements (if any) to be made

Assessing the above given theoretical and practical value of the dissertation, we note that there are some shortcomings in the content and design of the work.

4.1 In the sections for theoretical analysis, there is a lack of reliance on the work of foreign scientists.

4.3 There are some technical shortcomings in the dissertation.

However, these shortcomings do not reduce the overall theoretical and practical value of the work. They can be taken as a recommendation.

5. Compliance with general standards of a PhD dissertation

Meta-subject teaching of primary education is based on the scientific-theoretical and methodological bases of research and provided with the plan of experimental work, the relevance of the initial and final results of the research to the objectives, the use of mathematical and statistical methods, the identified content facts and teaching and research activities. the introduction of a methodology, a system of tasks, a special course with the verification of actions.

Meta-technical teaching of primary education is based on the scientific-theoretical and methodological bases of research, experimental work plan, and the relevance of the initial and final results of research, mathematical and statistical methods, methodology, system of tasks, and the introduction of a special course with verification of content and research activity.

6. Dissertation approved (not approved) for defense

I consider that Zhumabayeva Zhazira Amanzholkyzy's dissertation "*Teaching the subjects of elementary education by metasubject approach*" for the degree of "Doctor of Philosophy" (PhD) in speciality 6D010200 - "Pedagogy and Methodology of Primary Education" is independently performed, completed research work in accordance with the requirements for dissertations.

Noting the theoretical and practical value of the dissertation of Zhumabayeva Zhazira Amanzholkyzy on the theme "*Teaching the subjects of elementary education by metasubject approach*", I propose to defend the given research work in the Dissertation Council established on the specialty 6D010200 - "Pedagogy and methodology of primary education" for the degree of Doctor of Philosophy (PhD) at the Kazakh National Pedagogical University named after Abai.

**Foreign scientific advisor: Doctor
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Mehmet Güven



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