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### CONCEPTUAL BASIS OF TRAINING OF MATHEMATICS TEACHERS

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**Abstract:** The content and essence of training future mathematics teachers in educational organizations, the content and essence of training students, and the importance of the elementary mathematics course in the training of future mathematics teachers are highlighted.

**Key words:** Educational organization, educational system, competence, competence, elementary mathematics, planometry.

In the process of scientific renaissance, new discoveries and inventions in the educational system of our republic, adapting the youth of our country to the social environment and directing them to engage in science is one of the important tasks of the present era. Modernization of the education sector in our country envisages the intellectual and spiritual development of students. This forms the skills of understanding democratic principles in students. Formation of social relations in students, modern forms of the teaching system, including the credit-module system of teaching, which is used by more than 1200 higher education institutions of European countries, interests in education, skills related to the pedagogical profession element is counted.

The scientific researches are conducted to increase the knowledge of the students who are becoming expert pedagogues, to create a strong foundation in the formation of the students who can compete in the world community in their field, to cultivate a sense of national pride, to create a desire to study world science and look at the world, work aims to train market-resistant future pedagogues. These views determine the urgency of directing them to the profession during the student period, which is considered an important period in the development of a person.

President of the Republic of Uzbekistan Sh.M. Mirziyoev said, "It is also very important to solve another problem: it is the professional level of pedagogues and teaching staff, their special knowledge. In this regard, it is necessary to create an environment that actively supports the processes of education, spiritual and educational maturity, and the formation of real values.

It is important to take into account the influence of multi-functional subjects in the formation of the competence of the future mathematics teacher. In particular, the course "Elementary mathematics" is one of the courses with this feature.

The issues of improving the system of training future mathematics teachers in studying the "Elementary mathematics" course in higher educational institutions of pedagogy have been discussed to this day. Including J.A. Sarvanova (methodical direction of teaching), N.G. Kuzina (formation of information cultures of students), V.V. Antonovskaya (implementation of professional and pedagogical direction), O.I. Martynyuk (vocational direction), N.V. Lobanova (using problem systems as individualized teaching tools) and others.

But these studies in many ways, firstly, do not sufficiently study such an important department as planimetry; secondly, the modern requirements for the preparation of students of pedagogical higher educational institutions in mathematics, especially in planimetry, related to the introduction of the competence approach to the educational process, are almost not taken into account.

Ways to improve the system of training students in studying the course "Geometry" in pedagogical higher education institutions are always V.A. Dalinger, A.J. Jafyarov, V.R. Mayer, T.P. Makhaeva, G.I. Saransev, T.K. Smikovskaya, N.L. Stefanova, A.A. Stolyar, L.M. Friedman, L.V. It was considered the subject of discussion in methodological studies of Shkerina et al

At the same time, in these studies, in our opinion, in the process of studying the course "Elementary Mathematics" ("Department of Planimetry") of mathematical training of students of

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pedagogical higher education institutions, with the elements of its teaching methodology, the future mathematics teacher direction such as determining the possibilities of competence formation is not sufficiently expressed.

The need to increase the level of competence of the future mathematics teacher, especially in planimetry and its teaching methodology, is connected with a number of situations: the insufficient level of competence of graduates of pedagogical higher education institutions in geometry ("Mathematics » specialty with additional specialty "Informatics"); such as low math graduation exam scores among school graduates.

The quality of training future mathematics teachers depends to a significant extent on professional competence in the field of planimetry. We give the relevant definition. A future mathematics teacher can be considered competent in the field of planimetry and its teaching methodology, if he has the following: a motivational and valuable attitude to learning the content and methodology of teaching planimetry; up-to-date knowledge in the scope of accepted standards for the planimetry school course and its teaching methodology; to know how to use this knowledge to solve educational and practical tasks and teaching problems; preparations for the organization of students' creative activities on planimetry; ability to reflexive-evaluation activity.

We now adhere to our definition of competence given by the prospective mathematics teacher under study.

- The analysis of scientific, methodical and educational literature on the research problem, the analysis of higher education practice allowed to identify a number of contradictions:

- at the socio-pedagogical level - the social order of the society to train qualified, competitive pedagogical personnel capable of effectively implementing the educational process in the general education system, and insufficient competence of students of pedagogical higher education institutions in mathematics, especially in planimetry between the level;

- at the scientific-pedagogical level: between the need for theoretical justification of the process of forming the competence of the future mathematics teacher in the study of planimetry and the insufficient scientific development of this direction for their training;

- at the scientific-methodological level: between the need to increase the effectiveness of the process of forming the competence of the future mathematics teacher in the study of planimetry and its teaching methodology, and the insufficient development of methodological support for this process.

- The need to resolve the listed conflicts is the relevance of the research topic "Pedagogical technologies of teaching planimetry to students of pedagogical higher education institutions based on a competent approach" and the main way of teaching them to planimetry aimed at forming the competencies of students of pedagogical higher educational institutions. defined the problem of determining and justifying

- That is why he must master new technologies and understand the possibilities of their use, know how to make independent decisions, adapt in the social and future professional sphere, solve problems and work in a team, be ready for stressful situations and know how to get out of them quickly.

Therefore, in the last decade of the 20th century and the beginning of the 21st century, reform processes are taking place in the field of training, retraining and professional development of teachers. In the course of the reforms, the educational paradigms are changing: from "knowledgeable" to practical. As a result, in a modern school, the teacher not only provides ready-made knowledge, but also creates conditions for students to search for necessary information and critically analyze it, distinguish problems and solve them quickly and purposefully, and apply the acquired knowledge in

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practice, creating conditions for independent, personally significant activities. becomes a teacher. In this case, subject knowledge becomes a means of teaching actions.

Rector of Moscow State University V. Sadovnichy defines the concept of the fundamentality of education as follows: "The fundamentality of higher education is the scientific knowledge that gives an educated person an understanding of the fact that we live on the basis of the law of nature and society, which no one can deny. is to combine knowledge and educational process. Violation of them by an illiterate or uneducated person is dangerous for others. Standard education can only be fundamental scientific education, the main purpose of which is to spread scientific knowledge as an integral part of world culture.

According to K.K.Colin, the fundamental nature of education refers to the following: "...it enables people to independently come to and make responsible decisions in situations of uncertainty, stress, when faced with new, complex natural and social phenomena will focus more. Scientific knowledge and high moral principles become the only reliable help in these cases.

The practical direction of education in the educational system of our republic implies the study of fundamental sciences, which have traditional educational plans and qualification requirements, together with professional-practical training.

#### **References:**

1. Bozorov Zokir Yuldosh o'g'li "Using the coordinate-vector method in solving planametric problems" International journal of social science & interdisciplinary research ISSN: 2277-3630 Impact factor: 7.429 IJSSIR, Vol. 12, No. 05. May 2023 pp. 97-99.

2. Zakir Yuldosh oglu Bozorov "Educational quality management and approaches to it" research and education, Scientific Journal Impact Factor 2023: 5.789, ISSN: 2181-3191, VOLUME 2, ISSUE 5, 2023.

3. Zakir Yuldosh oʻgʻli Bozorov "Using the coordinate vector method for solving geometric problems" Academic Research in Educational Sciences, Scientific Journal Impact Factor (SJIF) 2021: 5.723, ISSN: 2181-1385, DOI: 10.24412/2181-1385-2021 -11-1471-1478, VOLUME 2 | ISSUE 11 | 2021

4. Bozorov Zakir Yuldosh o'g'li "Improving the quality of education is an urgent issue of today" scientific methodological journal MUGHALLIM AND CONTINUOUS KNOWLEDGE. 5/2 of 2023. Pages 146-150.

5. Togayev Zoir, Bozorov Zokir Yuldosh oʻgʻli "Applications of Stewart's and Ptolemy's theorems in geometric problems" Proceedings of the international practical conference on innovative technologies and current problems of higher education in the context of globalization. June 5, 2023. Pages 420-423.

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