Application of information technologies to improve the quality of mathematical trainingo teachers of natural-science disciplines

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Abstract

© 2018 Authors. The actuality of the problem stated in the article is due to the fact that the level of professional competence of future teachers of the natural-science subjects largely depends on the quality of mathematical training, which is largely provided by the use of computer technologies in higher mathematics classes. Information technologies are indispensable for the effective organization of the educational process in the modern conditions of teaching the course of mathematical disciplines. As a result of the study of this problem, the authors used methods that allowed defining the definition of mathematical competences of teachers of natural-science disciplines (theoretical analysis of pedagogical literature) and confirming the effectiveness of using information technologies in higher mathematics classes (pedagogical experiment). The main results of the research consist in the allocation of four levels of mathematical competences (low, medium, high, very high), and in the definition of the system of basic mathematical competencies. The obtained results allow to answer the question how on the basis of computer technologies to develop the mathematical competencies of future teachers of the natural-science disciplines more effectively, and, supplementing the existing theory of higher education, contribute to solving the issues of motivation for teaching higher mathematics.

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Keywords

Information technologies, Mathematical competences, Mathematical training, Teachers of natural-science disciplines

References