THE METHODS OF FORMATION OF VISUAL AND INFORMATION CULTURE OF PRE-SERVICE MATHEMATICS AND COMPUTER SCIENCE TEACHERS

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Modern mathematics and computer science teacher must have a high level of formation of visual and information culture, i.e. must have values, aspirations for development in the field of visualization and informatization of education; have computer and mathematical, psychological and pedagogical, technological knowledge; skills to perceive, analyze, compare, interpret, produce using information technology, structure, integrate, evaluate visually presented educational material, which depends on the method of cognitive theoretical and practical activities of teachers and students. One of the possible ways to increase the effectiveness of the formation of visual and information culture of pre-service mathematics and computer science teachers is the use of active teaching methods, which include problem method, task method, brainstorming and netnography. The use of the problem method helps to form the desire and interest in learning, which is accompanied by an independent «discovery» of new knowledge, overcoming cognitive contradictions; the ability to solve problems that arise independently and independently choose the computer visualization means (CVM) to solve them; develop the ability to self-education. The use of the task method allows to form the ability of rational choice of CVM in accordance with the chosen method of solution, rational choice of CVM computer tools; construction of a cognitive and visual model, interpretation of the obtained computer solution. The method of brainstorming helps to intensify the students' educational and cognitive activities, the formation of skills to concentrate on solving urgent problems, active production of ideas, gaining experience of collective thinking and finding the most rational way of solving. The netnography method was used to analyze the Internet to study the experience of the Internet teachers, scientists and teachers-practitioners community in the use of CVM in the educational process.

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