

How can we encourage mathematical creativity in the classroom?

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Abstract

Enhancing the development of 21st century skills such as critical thinking, creativity, collaboration, and communication is one of the most effective ways to prepare students for professions that do not yet exist, social challenges that we cannot anticipate, and the use of technologies that have not yet been invented. Creative individuals have an advantage in the classroom because they can implement what they have learned in new contexts and create new connections between different types of knowledge and skills. The cultivation and encouragement of mathematical creativity are essential not only for the intellectual development of students, but also for the enhancement of their affective characteristics. When mathematical creativity is encouraged in the classroom, students' critical thinking, problem-solving skills, confidence, engagement, and motivation may increase. This presentation provides an overview of methods for nurturing and assessing mathematical creativity in educational settings.

Keywords: creativity-directed activities; mathematical creativity; problem-posing; problem-solving