

The Interplay of Communication and Critical Thinking in the Mathematics Classroom

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Abstract : At the heart of mathematics education is the concept of communication which many teachers envision as the influential dialogue they conduct with their students. However, communication in the mathematics classroom operates in different forms at different levels, both externally and internally. Specifically, it can be a central component in the building of critical thinking skills that requires students not only to know how to communicate their solutions to others but that they also be able to navigate their own thought processes in search of those solutions. This paper provides a review of research on the role of communication in the building of critical thinking skills in mathematics with a focus on the problem-solving process and the implications this interplay has for the teaching and learning of mathematics.

Keywords : communication in mathematics, critical thinking skills, mathematics education, problem-solving process

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