



## Fachbereich Erziehungswissenschaft

Institut 9 / Arbeitsbereich Mathematikdidaktik

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# Mathematikdidaktisches Kolloquium

Dienstag, den 10. Januar 2006, 16:15 — 17:45 Uhr, Von-Melle-Park 8, Raum 424

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### ***Prof. Dr. Barath Sriraman***

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## Problem Solving Research In Mathematics Education: Viable And Non-viable Mutations

The problem solving literature from the last 100 years reveals various mutations beginning with the work of the Gestalists, Heuristic models, onto contemporary models that focus on meta-cognition and affective aspects of problem solving. The extant literature reveals (1) continuous refinements of prior models, (2) theories of problem solving - theoretical, (3) theories generated from empirical data, (4) heuristic models (5) models that constitute of cognitive, affective and meta-cognitive components. The literature has reached an impasse, so to speak, since "new" problem-solving research simply verifies prior work.

In other words, most of the mutations occurring currently are non-viable as they do not present different or completely new perspectives. Are there any atypical research mutations occurring today, which are changing our established conceptions of problem solving? In this talk we will survey some new, atypical mutations in problem solving research including recent advances in modeling which have the potential of conveying a brand new perspective of what mathematical problem solving means as well as the viability of moving the research forward.

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