

Einladung zum wissenschaftlichen Kolloquium des IDMI

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**Conceptual and procedural knowledge in mathematics:
Past, present, and future**

The terms “conceptual knowledge” and “procedural knowledge” continue to be widely used in mathematics education as a framework for describing knowledge outcomes of interest for student learning of mathematics. In this talk, I begin by providing some historical background on other terminological frameworks for describing knowledge outcomes, followed by an overview of the 1980s origins of the terms “conceptual knowledge” and “procedural knowledge” in the US. I then offer commentary on these terms, including critiques about common usage of this terminological framework, tensions between psychological and mathematics educational conceptions of knowledge, as well as my thoughts on what typical usage of these terms reveals about research frameworks and methods in the field of mathematics education. I conclude with some reflections on paths forward for how we talk about desired knowledge outcomes in mathematics education.

Jon Star is a Professor of Education at the Harvard Graduate School of Education. Star is an educational psychologist who studies children's learning of mathematics in middle and high school, particularly algebra. Star's current research explores the development of flexibility in mathematical problem solving, with flexibility defined as knowledge of multiple strategies for solving mathematics problems and the ability to adaptively choose among known strategies on a particular problem. Star also investigates instructional and curricular interventions that may promote the development of mathematical understanding. In addition, Star is interested in the preservice preparation of middle and secondary mathematics teachers. Prior to his graduate studies, Star spent several years teaching middle and high school mathematics.

Dienstag, den 12. Januar, um 17 Uhr c.t. via Zoom

Vorgespräch muss diesmal leider entfallen.

Zoom-Meeting: <https://wwu.zoom.us/j/94139200143>

Meeting-ID: 941 3920 0143

Kenncode: 525859

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