

Einladung zum wissenschaftlichen Kolloquium des IDMI

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**A radical embodied approach to trigonometry
teaching and learning**

Embodied turn in cognitive science radically reframes our understanding of cognition: from this perspective, the cognitive system is not a brain-machine that represents and processes abstract and concrete objects but distributed between bodies and cultural artifacts system that regulates actions. How do these theoretical innovations influence teaching and learning mathematics? I present an elaborated in design research project sequence of interactive embodied activities for trigonometry. The combination of videography and eye-tracking analysis shows how embodied experience grounds conceptual understanding and how enactment is critical for approaching artifacts in a mathematically meaningful way. I reflect on the principles of embedding mathematical artifacts into students' sensory-motor practice and on the potential of embodied designs for technologically enhanced mathematics education.

Dienstag, den 3. Dezember, um 17 Uhr c.t. im Raum 29,
Apffelstaedtstr. 21, 48149 Münster

Vorgespräch bei Kaffee und Tee um 16:30 Uhr im Raum 14,
Apffelstaedtstr. 21, 48149 Münster

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