Institut für Didaktik der Mathematik und der Informatik

Einladung zum wissenschaftlichen Kolloquium des IDMI

Matthew Inglis
(Loughborough University, UK)

Learning Number Symbols with Abstract and Concrete Representations

How do children attach meaning to number symbols? Parents are frequently advised to use number books to help their children learn what number symbols mean. How should these resources be designed to best support learning? Previous research has shown that number books typically include multiple concrete representations of number. However, a large body of mathematics education research has demonstrated that there may be costs, as well as benefits, to using both multiple representations and concrete representations when learning mathematical concepts. I will report a series of studies in which we used an artificial symbol learning paradigm to explore whether the use of abstract (arrays of dots) or multiple concrete (changing arrays of pictures) numerical representations resulted in better learning of novel numerical symbols by children. I will conclude by reporting several recent studies that used a similar artificial symbol-learning paradigm to contrast ordinal and cardinal approaches to number learning.

Matthew Inglis is a Professor of Mathematical Cognition in the Mathematics Education Centre at Loughborough University, UK. His research aims to understand the cognitive processes involved in numerical thinking, logical reasoning, and mathematical practice. His work has been widely published across both psychology and education journals. In 2014 he was awarded the Selden Prize by the Mathematical Association of America.

Dienstag, den 17. November, um 17 Uhr c.t. via Zoom

Vorgespräch: um 16:45

Zoom-Meeting: https://wwu.zoom.us/j/97302568872

Meeting-ID: 973 0256 8872
Kenncode: 187939

Kontakt: Stanislaw Schukajlow, schukajlow@uni-muenster.de