Assistant Professor of Education

Research Areas

Mathematical Learning Disabilities
Accessible Instruction
Mathematics Education

Scholar Snapshot

Professor Lewis’ research lies at the intersection of math education and special education and is concerned with understanding the nature of mathematical learning disabilities (MLDs). Her work centers on an understanding of disability in terms of cognitive difference rather than deficit. This orientation involves identifying differences in student’s understanding as they occur in authentic learning environments, evaluating the accessibility of instruction, and considering ways in which students may compensate.

Her scholarship is organized around several closely related analytic foci:
• Developing valid ways of identifying students with MLDs and differentiating MLDs from low achievement due to other factors
• Assessing math learning disabilities through detailed diagnostic analyses of video data and
• Designing re-mediation approaches that are based on diagnostic analyses and tailored to the individual student

In her recent research, Professor Lewis has focused on the mathematical domain of fractions, designing alternative instructional approaches and extending her analysis to other mathematical topics to provide a more comprehensive view of math learning disabilities. In addition to her work on MLDs she also investigates how to design more accessible instruction for all learners.

Professor Lewis’ 2018 article “Productive Struggle for All: Differentiated Instruction” received the Linking Research and Practice Outstanding Publication Award from the National Council of Teachers of Mathematics Research Committee.

In Depth

Watch Professor Lewis’ EduTalk to hear how her own learning disability has informed her work helping students with disabilities learn math.

education.uw.edu/LewisTalk

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