

**ZMATH 2014d.00332**

**Hord, Casey; Newton, Jill A.**

**Investigating elementary mathematics curricula: focus on students with learning disabilities.**

Sch. Sci. Math. 114, No. 4, 191-201 (2014).

Summary: The purpose of this study was to investigate three elementary mathematics curricula to examine the accessibility for students with learning disabilities (LD) with regards to challenges associated with working memory. We chose to focus on students' experiences when finding the area of composite shapes due to the multiple steps involved for solving these problems and the potential for these problems to tax working memory. We conducted a qualitative analysis of how each curriculum provided opportunities for students with LD to engage with these problems. During our analysis, we focused on instruction that emphasized visual representations (e.g., manipulatives, drawings, and diagrams), facilitated mathematical conversations, and developed cognitive and metacognitive skills. Our findings indicated a need for practitioners to consider how each curriculum provides instruction for storage and organization of information as well as how each curriculum develops students' thinking processes and conceptual understanding of mathematics. We concluded that all three curricula provide potentially effective strategies for teaching students with LD to solve multi-step problems, such as area of composite shapes problems, but teachers using any of these curricula will likely need to supplement the curriculum to meet the needs of students with LD.

*Classification:* D30 C40 C30

*Keywords:* learning disabilities; curriculum; accessibility; problem solving; working memory

doi:10.1111/ssm.12064