When Less Is More: Fewer Shape Types Result In Higher Quality Parent-Child Shape Talk

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Abstract

Shape puzzles can elicit parent-child math talk, which is critical for early math learning. However, little is known about how the features of the puzzles impact parent-child interactions through parents math talk. Two- to four-year-old children and their parents (current N=30; target N=128) completed two shape puzzles. The control puzzle was typical of commercial puzzles, including nine distinct shapes. The experimental puzzle included multiple exemplars of shapes (e.g., three different triangles, three different quadrilaterals). We hypothesized that parents would use richer math talk with the experimental puzzle. We coded quantity and quality of parent math talk during the interactions. Preliminary results indicate that parents mostly used low-level math talk (naming shapes) for both puzzles, but they used more high-level math talk (comparing shapes, providing shape definitions) for the experimental than the control puzzle (p=0.054). We discuss particular puzzle features that can stimulate high-quality math talk during parent-child interactions.