Perception of math and non-math content in children's storybooks

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Abstract: Young children acquire informal math ideas through everyday experiences. Research demonstrates that storybooks can link their informal notions to abstract concepts (Murphy, 1999). The integration of visual and written depictions of mathematics, along with conversations arising from the story, can bolster children's capacity to communicate and think mathematically. Despite the growing literature supporting use of math storybooks, little is understood about how educators perceive and interpret the embedded math content. Our study presents storybook pages to educators and asks questions to determine whether they are more likely to identify concepts in math (e.g., number) or non-math (e.g., vocabulary) domains. We also analyze the association between domain and the degree of abstraction in the language used to describe content in that domain. Preliminary data suggest that educators ask questions about number concepts at higher levels than expected and character's actions at lower levels than expected.