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Using metaphors to unpack student beliefs about mathematics.

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Summary: This paper reports on an exploratory study of the mathematical beliefs of a group of ninth and tenth grade students at a large, college preparatory, private school in the Southeastern United States. These beliefs were revealed using contemporary metaphor theory. A thematic analysis of the students' metaphors for mathematics indicated that students had well developed and complex views about mathematics including math as: an Interconnected Structure, a Hierarchical Structure, a Journey of Discovery, an Uncertain Journey, and a Tool. Another prevalent theme revealed by the metaphors was that students believe perseverance is needed for success in mathematics. The data also suggest an impact of gender and tracking on students beliefs about mathematics. Creating metaphors for mathematics provided a catalyst for student reflection, class discussion, and qualitative data, which could aid program evaluation. Several areas for future research were identified through this exploratory study. (ERIC)

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