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**What do we know about reasoning and proving? Opportunities and missing opportunities from curriculum analyses.**

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Summary: By examining findings and research methodology across studies focused on reasoning-and-proving in mathematics textbooks, this paper provides commentary on the nature of reasoning and proving and curriculum analysis in mathematics education. Large variations across the studies were noted with regard to the framings of reasoning-and-proving as well as the analytic methods used by each authoring team. Working toward achieving greater methodological consistency is a challenging endeavor that could ultimately inform the field about the quantity and quality of students' opportunities to learn reasoning and proving across the intended mathematics curriculum. We offer suggestions for future research related to better defining and conceptualizing the notions of "reasoning" and "proving", as well as analyzing student learning opportunities beyond the intended curriculum analysis.

*Classification:* E50 D30 B70

*Keywords:* reasoning and proving; curriculum analysis; opportunities to learn; mathematics curriculum; mathematical justification; instructional tasks

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