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Evaluating the Efficacy of MathByExample: Preliminary Evidence

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Abstract

Rather than merely solving math problems, students that self-explain correct and incorrect worked examples increase their procedural knowledge and develop deeper conceptual understandings of key concepts. The present study is a large-scale test of the efficacy of the MathByExample intervention, which targets key math concepts and common misconceptions for students in 5th grade through correct and incorrect worked examples. Our cluster-randomized controlled trial included 42 schools ($n = 830$ 5th grade students) across two cohorts. Preliminary results show effects in the predicted direction, students who received MathByExample exercises outperformed students in the control condition, yet the difference is not significant. Our poster will discuss possible explanations for the findings, discuss exploratory moderators (e.g., dosage received of MathByExample exercises), and include data from a third cohort for which data collection is currently ongoing.