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Longitudinally investigating the impact of curricula and classroom emphases on the algebra learning of students of different ethnicities.

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Summary: This paper explores how curriculum and classroom conceptual and procedural emphases affect the learning of algebra for students of color. Using data from a longitudinal study of the Connected Mathematics Program (CMP), we apply cross-sectional HLM to lend explanatory power to the longitudinal analysis afforded by growth curve modeling that we have reported elsewhere. Overall, we find that the achievement gaps tend to decrease over the course of the middle grades. However, differences in open-ended problem solving and equation-solving performance persist for African-American students. Classroom conceptual and procedural emphases also appear to differentially influence the performance of Hispanic and African-American students, depending on the aspect of algebra learning that is being measured.

Classification: D33 C73 C33 C63 H23 H33 D20

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