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**Student participation in elementary mathematics classrooms: the missing link between teacher practices and student achievement?**

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Summary: Engaging students as active participants in mathematics classroom discussions has great potential to promote student learning. Less well understood is how teachers can promote beneficial student participation, and how teacher-student interaction relates to student achievement. This study examined how the kinds of teacher practices that may encourage beneficial student participation relate to student achievement in elementary school mathematics classrooms. Using videotaped recordings, we examined the extent to which students explained their own ideas and engaged with others' ideas and how teachers supported these kinds of student participation. Linking teacher practices, student participation, and achievement all at the individual student level, we found that student achievement was best predicted by the combination of teacher practices and student participation. The results show that taking into account student participation is necessary for understanding how teaching practices relate to student mathematics learning.

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