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What kind of problem is this? Labels guide generalization of math strategies

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Abstract

When students learn a new strategy, how do they determine when to apply it? We examined whether the labels given to strategies and problems may help guide generalization of the strategies. Participants read a worked example that demonstrated two different strategies for solving algebraic word problems. Participants then solved a set of four posttest items. The labels given to the posttest items matched either the label given to strategy A in the lesson or the label given to strategy B in the lesson. When solving the posttest problems, participants used the strategy whose label matched the label they saw on the posttest items more often than the alternative strategy, whose label did not match the posttest label. Thus, learners use labels to guide generalization of problem-solving strategies. These findings suggest that the ways teachers refer to strategies and problem types may influence students performance.