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Moving beyond a traditional algorithm in whole number subtraction: preservice teachers' responses to a student's invented strategy.

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Summary: Although students' invented strategies typically prove to be meaningful and effective in improving the students' mathematical understanding, much remains unexplored in the current literature. This study examined, through a teaching-scenario task, the nature of 80 preservice teachers' reasoning and responses to students' informal and formal strategies for whole number subtraction. This study also examined challenges reported by preservice teachers attempting to connect students' informal strategies to a traditional method. The broader implications of this study for the international community are discussed, and recommendations for teacher education programs are presented in accordance with the findings of the study.

Classification: F30 D39
Keywords: whole number subtraction; preservice teacher education; student-invented strategy
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