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**Problem posing as reformulation and sense-making within problem solving.**

Singer, Florence Mihaela (ed.) et al., Mathematical problem posing. From research to effective practice. New York, NY: Springer (ISBN 978-1-4614-6257-6/hbk; 978-1-4614-6258-3/ebook). Research in Mathematics Education, 177-194 (2014).

Summary: This chapter examines a type of problem posing that has received little attention in the mathematics education literature. *E. A. Silver* [Learn. Math. 14, No. 1, 19–28 (1994; ME 1994f.02448)] defined within-solution problem posing as “problem formulation or reformulation [that] occurs within the process of problem solving” (p. 19). Our analysis documents and explains the role that within-solution problem posing plays during problem solving, focusing on episodes of students from two grade levels: (a) Two fourth-grade students solving a multiplication task, and (b) A mathematics education graduate student solving a number array task. Our research examines: (a) How problem posing evolves from the students’ ongoing interpretations of problematic situations, and (b) How these posed problems contribute to the students’ problem solving. The results provide an explanation of how problem posing and problem solving coevolve in the course of solution activity and thus indicate the beneficial role that problem posing can play in the solution of mathematics problems.

*Classification:* D50

*Keywords:* problem posing; problem solving; sense-making

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