ZMATH 2015f.00431

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Problem-posing research in mathematics education: some answered and unanswered questions.

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, 3-34 (2014).

Summary: This chapter synthesizes the current state of knowledge in problem-posing research and suggests questions and directions for future study. We discuss ten questions representing rich areas for problem-posing research: (a) Why is problem posing important in school mathematics? (b) Are teachers and students capable of posing important mathematical problems? (c) Can students and teachers be effectively trained to pose high-quality problems? (d) What do we know about the cognitive processes of problem posing? (e) How are problem-posing skills related to problem-solving skills? (f) Is it feasible to use problem posing as a measure of creativity and mathematical learning outcomes? (g) How are problem-posing activities included in mathematics curricula? (h) What does a classroom look like when students engage in problem-posing activities? (i) How can technology be used in problem-posing activities? (j) What do we know about the impact of engaging in problem-posing activities on student outcomes?

Classification: D50 D20
Keywords: problem posing; research in mathematics education; problem solving; high-quality problems; use of technology; activities
doi:10.1007/978-1-4614-6258-3_1