



Teaching Powerful Problem-Solving in Math

A Collaborative Approach Through Lesson Study

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Foreword by **Phil Daro**

"This amazing volume contains a wealth of information about one of the most successful models for teacher learning and increased student success in mathematics." —**Alice J. Gill**, American Federation of Teachers

"This book shows how we might create impactful learning environments for teachers, and the students they dream of educating and inspiring."

—**Stanley L. Pesick**, UC Berkeley

Teaching Powerful Problem-Solving in Math provides the first in-depth portrait of schoolwide lesson study, showing how U.S. teachers at several schools used it to implement powerful problem-based mathematics instruction.

Students learn mathematics by confronting a novel problem and building the new understanding of the mathematical concepts needed to solve it, just as mathematicians would. By learning in this way, students discover the power of their own thinking and gain confidence that extends well beyond mathematics.

This book introduces readers to urban elementary and K–8 schools where teachers have dramatically transformed math learning for teachers and for students. Readers will follow teachers as they transform instruction using schoolwide lesson study, building powerful new ways for educators to learn from each other and practice innovative teaching techniques. The authors use in-depth classroom portraits (from the outset of schoolwide lesson study and three years later) to illuminate the changes in mathematics instruction at a school that raised its proficiency on Smarter Balanced Assessment from 15% to 56%. Extensive resources and links are provided to help readers understand and build on the work of these schools which is grounded in established principles of collective efficacy, intrinsic motivation, and learner agency for both students and teachers.

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