

Preface

By Timothy D. Kanold

In the early 1990s, I had the honor of working with Rick DuFour at Adlai E. Stevenson High School in Lincolnshire, Illinois. During that time, Rick—then principal of Stevenson—began his revolutionary work as one of the architects of the Professional Learning Communities at Work™ (PLC) process. My role at Stevenson was to initiate and incorporate the elements of the PLC process into the K–12 mathematics programs, including the K–5 and 6–8 schools feeding into the Stevenson district.

In those early days of our PLC work, we understood that grade-level or course-based mathematics collaborative teacher teams provided us a chance to share and become more transparent with one another. We exchanged knowledge and reflected on our growth and improvement as teachers in order to create and enhance student agency for learning mathematics. As colleagues and team members, we taught, coached, and learned from one another; we refined our mathematics teaching practice and took action to improve. However, we had one major secret we kept from one another. We did not know our mathematics *instruction* story. We did not have much clarity on an instruction vision that would improve the learning of our students in mathematics and cause greater student agency.

We did not initially understand how the work of our collaborative teacher teams—especially in mathematics at all grade levels—when focused on the right instruction criteria, could erase inequities in student learning that the wide variance of our professional assessment practice caused.

Through our work together, we realized that, without intending to, we often were creating massive gaps in

student learning because of our isolation from one another; our isolated decisions about the specifics of lesson design and the teaching of mathematics were a crushing consequence in a vertically connected curriculum like mathematics.

We also could not have anticipated one of the best benefits of working in community with one another: the benefit of belonging to something larger than ourselves. There is a benefit to learning about various teaching and assessing strategies from each other, *as professionals*. We realized it was often in community we found deeper meaning to our work, and strength in the journey as we solved the complex issues we faced each day and each week of the school season, *together*.

The idea of this collaborative focus to the real work we do as mathematics teachers is at the heart of the *Every Student Can Learn Mathematics* series. The belief, that if we do the right work together, then just maybe every student can be inspired to learn mathematics, has been the driving force of our work for more than thirty years. And thus, the title of this mathematics professional development series was born.

In this series, we emphasize the concept of *team action*. We recognize that some readers may be the only members of a grade level or mathematics course. In that case, we recommend you work with a colleague a grade level or course above or below your own. Or, work with other job-alike teachers across a geographical region as technology allows. Collaborative teams are the engines that drive the PLC process.

A PLC in its truest form is “an ongoing process in which educators work collaboratively in recurring

cycles of collective inquiry and action research to achieve better results for the students they serve” (DuFour, DuFour, Eaker, Many, & Mattos, 2016, p. 10). This book and the other three in the *Every Student Can Learn Mathematics* series feature a wide range of voices, tools, and discussion protocols offering advice, tips, and knowledge for your PLC-based collaborative mathematics team.

The coauthors of the *Every Student Can Learn Mathematics* series—Bill Barnes, Matt Larson, Jessica Kanold-McIntyre, Sarah Schuhl, and Mona Toncheff—have each been on their own journeys with the deep and collaborative work of PLCs for mathematics. They have all spent significant time in the classroom as highly successful practitioners, leaders, and coaches of K–12 mathematics teams, designing and leading the structures and the culture necessary for effective and collaborative team efforts. They have lived through and led the mathematics professional growth actions this book advocates within diverse K–12 educational settings in rural, urban, and suburban schools.

In this book, we tell our mathematics *instruction* story. It is a story about your daily choices for the balance of higher-level and lower-level-cognitive-demand mathematical tasks to teach the essential learning standards of the unit, your strategies used for teaching

those standards, the daily discourse balance in your mathematics class, and the effective ways in which every mathematics lesson should begin and end. It is a K–12 story that, when well implemented, will bring great satisfaction to your work as a mathematics professional and result in a positive, persevering, and formative learning impact on your students.

For your grade-level or course-based collaborative team, helping students to persevere during a mathematics lesson as *part of a formative process* for learning is where the most impactful work of your actual teaching and student learning and meaning is located. This formative process is at the heart of *Mathematics Instruction and Tasks in a PLC at Work*. We want to help your team participate in meaningful discussions about how to prepare and then execute a mathematics lesson design that will significantly increase student learning and effort each day.

We hope you will join us in the journey of significantly improving student learning in mathematics by leading and improving your mathematics instruction story for your team, your school, or your district. The conditions and the actions for adult learning of mathematics *together* reside in the pages of this book. We hope the stories we tell, the tools we provide, and the opportunities for reflection serve you well in your daily professional work in a discipline we all love—mathematics!