WHAT YOUR COLLEAGUES ARE SAYING ...

"Productive Math Struggle will be a companion to all teachers seeking to enhance their math instruction, while supporting teachers to build the kind of math identities that our students deserve. There are so many gems within this book, it's hard to read without thinking of something to implement immediately into one's teaching practice."

Melissa J. Black

Associate Dean of Harlem Village Academies PEI Graduate School Looping Second/Third-Grade Teacher at Two Rivers Public Charter School Harlem Village Academy and Two Rivers Public Charter School New York, NY

"Let's be honest. Creating a classroom environment that supports productive struggle is a challenge. This book will be your rescue story, packed with ready-to-use resources to support productive struggle and provide access and equity for *all* students to learn mathematics at high levels. This is for educators, coaches, administrators, and families to reflect on why productive struggle is imperative to success. Be courageous, take the first step, and embark on this journey of struggle! You won't regret it."

Tara Zuspan

Elementary Instructional Coach Lincoln Public Schools, NE

"Teachers are expected to foster productive struggle in their students, and, *finally*, there is a comprehensive resource that lays out exactly how to make this happen! *Productive Math Struggle* is a playbook that includes six Actions—Value, Foster Identify, Build Community, Plan, Support, and Reflect—for ensuring teachers have the tools to help their students persevere in math class. This brilliant resource provides practical activities, lessons, ideas, and examples that can be used in the classroom on a daily basis."

Marissa Walsh

Elementary Math Instructional Coach Blue Springs School District, MO

"Students need to feel successful during math. This book gives you tools to help your students build confidence with their understanding of mathematics concepts. It helps promote a love for math in a successful way by allowing them to process what they are learning."

Tamara Daugherty

Third-Grade Teacher, Zellwood Elementary Lakeville, FL

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"Productive Math Struggle moves us from knowing we should to knowing how to engage students in productive struggle. Through vignettes, showing ways to modify tasks, and dozens of instructional strategies, and engaging and helpful discussions, we can generalize actions that support and inhibit student thinking and learning. This book challenges us to challenge our students."

Jennifer Bay-Williams

Professor, University of Louisville Pewee Valley, KY

"Providing opportunities to support productive struggle in the teaching and learning of mathematics is important. And, guess what? It's certainly time to do more than merely acknowledge such importance! This valuable and highly usable resource fully explores and establishes the considerations necessary to regularly provide and support learning opportunities that value and celebrate productive struggle in mathematics. Most importantly, this book recognizes and discusses what all teachers must think about and address as they challenge their students mathematically, all the while nurturing the importance of perseverance—a valued life trait. I expect this book to be a popular and valued reference for professional learning in the field of mathematics education for quite some time!"

Francis (Skip) Fennell

Past President, National Council of Teachers of Mathematics (NCTM)
Professor of Education and Graduate and Professional Studies, Emeritus
Project Director, Elementary Mathematics Specialists & Teacher Leaders Project
McDaniel College, MD

"The authors do a great job of defining what productive struggle is, as well as what it isn't. You can tell they are very familiar with classroom dynamics, and they offer helpful perspectives regarding a variety of issues: task modifications, issues to think about, student and teacher behaviors, productive and unproductive beliefs, as well community. The classroom vignettes were my favorite part because they helped me see what it looks like when students are doers of mathematics and teachers are supporting productive struggle. I loved the book!"

Jennifer Outzs

Middle School Math Teacher NCTM Board of Directors Pinellas County, FL

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"Productive Math Struggle: A 6-Point Action Plan for Fostering Perseverance addresses the intricacies of productive struggle more than any other resource out there and is a must-read for every educator dealing with the challenges of implementing productive struggle in their classrooms. The authors offer an abundance of practical strategies to help you foster, build, and support productive struggle in your class. This book will be your go-to resource for everything about productive struggle, and I can't wait to use it in my work with teachers, coaches, and administrators."

Rosalba McFadden

Elementary Math Consultant Zenned Math, Inc. Monroe, NY

"I highly recommend *Productive Math Struggle: A 6-Point Action Plan for Fostering Perseverance* for all mathematics teachers, instructional leaders, and administrators as a guide to enact strategies that empower and rightfully position each and every student as thinkers and doers of mathematics. Read this book and be ready to be drawn in by powerful and relatable vignettes that illuminate what it means to support students in the deep learning of mathematics through productive struggle. With a valuable collection of practical prompts, activities, inventories, surveys, and reproducible tools, this book is a must-have as we work to prepare each and every student for their bright futures!"

Sarah B. Bush

NCTM Board of Directors
Associate Professor, K–12 STEM Education
Program Coordinator, PhD in Mathematics Education
University of Central Florida

"Although each of us, and each of our students, has experienced struggle, there is very little literature that helps us as mathematics teachers utilize and place a value on productive struggle. This book helps fill that void. *Productive Math Struggle* offers six essential actions for nurturing productive struggle before, during, and after our lessons to create a classroom and school community that embraces struggle in our students and makes productive struggle a natural part of the classroom community. This book gives every teacher and every school the tools needed to value and reward productive struggle in our mathematics classrooms."

David Ebert

Mathematics Teacher NCTM Board Member, 2017–2020

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"Engaging students in productive struggle is crucial for developing problem solvers with perseverance. *Productive Math Struggle* provides actionable changes for you to cultivate an environment where students have the opportunity to struggle. The authors suggest ways for you to develop and adapt tasks that are worthy of your students' efforts. Classroom vignettes offer contrasting points of view to help you make sense of how student struggle is supported by some teacher actions and inhibited by others."

Juli K. Dixon

DNA Math Orlando, FL

"As educators, we have the privilege and crucial role of shaping students' math identities and encouraging productive struggle skills. This book will be an incredible, comprehensive resource as we continue to set a firm mathematical foundation for all students and lead them in their own journey of productive struggle."

Kristy Kennedy

Interventionist, Elementary School Lincoln Public Schools, NE

"Productive Math Struggle synthesizes all the essential classroom practices for real mathematics learning! This resource provides teachers insight into themselves and their students as learners! It serves as a tool to navigate mathematical struggle and understanding with authentic examples and highly applicable techniques for setting the stage, responding during the learning cycle, and reflecting after learning. Productive Math Struggle allows for our beliefs about quality mathematics instruction to be transformed into classroom actions that will ultimately serve our students in ways that will positively impact their mathematical development and success."

Jaime Junker

Principal USD 259, Harry Street Elementary School Wichita, KS

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"Before today I couldn't put my finger on what productive struggle is and how I can help foster it in my classroom. After reading *Productive Math Struggle*, I have a firm grasp on how teachers can use struggle to change how students approach their tasks and the subject as a whole. The book combines a clear case for why we should embrace the struggle, with dozens of practical tools that show teachers, coaches, and administrators can start this work immediately. The authors explain why our students need a culture that can support productive struggle and suggest a way to challenge the prevalent negative beliefs about math that students bring into our classrooms."

Carl Oliver

Assistant Principal City-As-School High School New York, NY

"First ask yourself, as SanGiovanni, Katt, and Dykema probe: "Have your students fallen out of love with math?" Or, perhaps, your students were never in love with math because they saw it as inaccessible or confusing. Simply telling students to try harder doesn't work and leaves students and teachers rolling about in a cycle of destructive struggle. Fret no more—the answer is here! When teachers use these fantastic, thoughtful strategic action steps, this heartbreaking phenomenon does not have to be a reality in anyone's classroom! Get this book and begin your journey for cultivating a positive classroom environment that promotes productive struggle that will have your students joyfully falling head over heels in love with mathematics."

Beth Kobett

Associate Professor, School of Education Stevenson University NCTM Board of Directors

""Invite productive struggle—don't scaffold it away." This might be my new motto for teaching and learning. This book is an essential read for everyone interested in helping students understand mathematics, not just learn procedures to pass a test. By sharing practical strategies and structures, including focus on mathematical identity and families, the authors help us invite productive struggle into our classrooms. They ask us to think critically about common practices like modifying tasks or revoicing to ensure our use of these strategies supports students for deep learning. Every educator should read and use this book to welcome productive struggle into the classroom."

Sara Delano Moore

Author of *Visible Learning for Mathematics* and *Mathematize It!*Director of Professional Learning, ORIGO Education

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