

## WHAT YOUR COLLEAGUES ARE SAYING . . .

*Building Thinking Classrooms in Mathematics* exudes enthusiasm for students, how they think, and how those thoughts coalesce into powerful thinking classrooms. It's also deeply practical, describing how everything from the teacher's questions to the arrangement of the furniture can add to your students' learning.

Dan Meyer

Chief Academic Officer, Desmos

If your students are not the ones doing the thinking in your classroom, then this book is for you! Peter Liljedahl provides concrete advice on each of 14 research-based practices, along with answers to frequently asked questions and suggestions for getting started, which will help you build a classroom where student thinking is the norm.

Peg Smith

Co-Author, *5 Practices for Orchestrating Productive Mathematics Discussions*

Professor Emerita, University of Pittsburgh

Pittsburg, PA

Peter Liljedahl's Thinking Classroom framework transformed my Mathematics classroom overnight. I was frustrated that despite my best teaching efforts some of my students still couldn't solve simple problems by their final exam. This framework gave me a starting point that I started implementing the very next day (don't wait for September to try this!) and next steps to continue incorporating as my practice evolved with 14 elements of the Thinking Classroom. Students began to talk to each other, think through complex problems, rely less on me and more on each other and best of all had better success in the courses I taught. The Thinking Classroom framework was exactly what my students and I needed!

Laura Wheeler

High School Math Teacher

Ottawa Carleton District School Board

Ontario, Canada

Peter refers to his research as "mucking about," and that is the key thing for me, that he goes into actual classrooms, and does math with students. We learn the most from being in actual classrooms, talking to students, and figuring out how they think about mathematics tasks. We need our students to be better thinkers, and to see mathematics for what it is: a beautiful way of thinking. We need them to see that they, too, can have powerful insights into interesting mathematics problems.

Matthew Oldridge

Author of *Teaching Mathematics Through Problem-Solving in*

*K-12 Classrooms* (Rowman & Littlefield, 2018)

Teacher, Peel District School Board

Ontario, Canada

An in-depth action plan backed with significant research and data, Liljedahl's plan is one that can improve every classroom for the better, and he foresees and addresses any questions or concerns you may have regarding implementation. It is clear Liljedahl understands the students I teach in his list of student behaviors when posed with a now-you-try-one activity: the slackers, stallerers, fakers, mimickers, and the few try-it-on-their-own-ers. This book outlines methods to increase the thinking and engagement of all my students. I was able to implement many of the methods the very next day.

Leslie Mohlman

Mathematics Teacher  
Alpine School District  
Lehi, UT

Peter Liljedahl's work is accessible, inspired by research, and embedded in classroom practice. He digs deeply and concisely into what it means to teach, learn, and assess in a thinking mathematics classroom. Elementary teachers, especially, will recognize themselves in this resource. Peter makes visible the often-intuitive moves of elementary classroom teachers, describing what it is we are doing when it all just works, and how to meaningfully shift our practice when it doesn't. From the way the furniture is arranged to how mathematical questions are posed, from who holds the pen to how to foster productive struggle and resilience, Peter sets the stage for genuine mathematical engagement in learners of all ages.

Carole Fullerton

Mathematics Teacher Leader and National Mathematics Consultant  
Mind-Full Educational Consulting  
Vancouver, BC

Research in education that turns right around and informs our practice is invaluable in today's schools and classrooms. Peter uses evidence gathered in mathematics classrooms to directly inform how we make changes to our teaching and learning that enhances learning. This is the essence of evidence-based practice, practice based on evidence from the very classrooms we seek to influence.

John Almarode

Associate Professor of Education  
James Madison University  
Harrisonburg, VA

After years of leading lessons in an "*I do, we do, you do*" format, I found that my students lacked a productive disposition toward mathematics and would give up on problems easily. I knew something had to change, but *what* was I going to change in my teaching practice and *how* was I going to get there? After 10 years of experimenting with different pedagogical approaches, classroom environment setups, and developing my own content knowledge, I realize that this book is the resource that could have helped me expedite the transformation I was after—moving from a classroom of "mimickers" to building a classroom of "thinkers." Save yourself years of experimentation

by investing a few hours reading this excellent book. Your students will thank you.

Kyle Pearce

K–12 Mathematics Consultant

MakeMathMoments.com & Greater Essex County District School Board  
Ontario, Canada

*Building Thinking Classrooms* is an instructional *tour de force* for any math teacher. From his extensive research, Peter offers remarkably actionable classroom structures and teacher facilitation moves that get students to think and move forward in their thinking. I'm thrilled it's finally here!

Fawn Nguyen

Math TOSA, Rio School District  
Oxnard, CA

For years I have heard about Thinking Classrooms in workshops, articles, and online. This engaging book has taken all the pieces that I have heard and seen and presents them in an easy to read, and more importantly, actionable package. Things that seemed a little too “I could never do that” for me now seem doable and I am inspired to begin to make changes. I am left with plenty to reflect upon in my current practice even as I begin to think about moving to a Thinking Classroom.

Casey McCormick

Math Teacher, Grades 5–8  
Citrus Heights, CA

*Building Thinking Classrooms* prompts us to reflect on the potential of mathematics classrooms, teachers, and learners. Supported by numerous stories from classrooms, Peter methodically exposes the familiar structures of school mathematics that suppress the potential of learners, then carefully outlines a set of opportunities around which teachers of mathematics can organize a dynamic and responsive classroom.

Nat Banting

Recipient of the 2019 Margaret Sinclair Memorial Award and  
the National Museum of Mathematics' 2019 Rosenthal Prize  
Mathematics Teacher  
Saskatchewan, Canada

Though there are many innovations in the area of teaching mathematics, few speak with a particular lens in terms of setting up an environment where thinking is made visible, where it's public, where positive interdependence is connected to individual and/or group accountability, with students relying on their own agency, as well as the wisdom of their peers. One where the teacher is freed up to have eyes on all student work, and watch the thinking process in action. In other words, thinking becomes a clearly visible driver in this environment. All of this supports the release of responsibility to the students. It honors their voices, allows for the bumps in learning, and makes

the thinking more public, thus supporting and encouraging risk-taking in a safe and supportive environment.

**Yana Ioffe**

School Principal  
Corwin Consultant  
Ontario, Canada

This book is timely and provides an accurate portrayal of what is occurring in mathematics classroom across the country. The book is a valuable reflexive tool that teachers can use as they analyze their own teaching practices.

**Kenneth Davis**

High School Mathematics Teacher and Department Chair  
School District of Beloit  
Beloit, WI

Peter's work in building thinking classrooms has been the single most impactful (driver for) change in secondary mathematics education that I have witnessed. I have never seen another idea/approach/model capture so many teachers immediately, and make it past the point from learning to actual implementation in almost every classroom or instance that I have witnessed.

**Mishaal Surti**

Educational Consultant  
Ontario, Canada

For teachers hoping to transform their teaching practice, Peter has written a definitive source. Peter's conversational style makes this work both interesting to read and easy to follow. He describes a rich set of practices that will help mathematics teachers transform, in a positive way, everything about their classroom. Peter turns the daunting challenge into something manageable with advice that is both believable and practical.

**David Wees**

Senior Curriculum Designer  
DreamBox Learning  
British Columbia, Canada