youcubed
at Stanford University

Shaping the Future of Mathematics Education: A Call to Action

Stanford University Mathematics Education Leaders Convening – *December 16, 2024*

On December 16, 2024, Dr Jo Boaler and the youcubed research center hosted a convening at Stanford University, bringing together over 60 mathematics education leaders to discuss the future of mathematics education in an evolving world. Participants identified the critical mathematical experiences students need to be prepared for success amid rapid societal and technological developments, including artificial intelligence, data science, and new research in the learning sciences.

Attendees represented a diverse range of expertise, including curriculum leaders and authors, district administrators, mathematics coaches, department chairs, classroom teachers, the president of NCTM, English learner specialists, mathematicians, university professors and lecturers, students, education researchers, non-profit mathematics directors, mathematics education community leaders, parent leaders and mathematics game and curriculum designers. To prepare for the day, participants read *The Science of Learning and Development: Implications for Educational Practice*, by Darling-Hammond, Flook, Cook-Harvey, Barron, and Osher, 2020.

Through collaborative discussions, the group combined evidence-based approaches to mathematics education with their own experiences, considering the needs of today's learners and the demands of a dynamic global landscape. This convening provided a valuable opportunity for leaders across the field to share insights, reach consensus, and contribute to shaping the future of mathematics education.

Consensus Statements

To synthesize the discussions, all responses and notes from the day were analyzed and summarized into two key consensus statements using ChatGPT.

Statement 1: Mathematics is for Exploration, Connection, and Confidence

Math is more than just numbers and formulas—it is a way of thinking, solving problems, and making sense of the world. All students deserve math experiences that build **curiosity, confidence, and collaboration**, where they can explore ideas, talk about their thinking, and learn through hands-on activities. Struggling with math should feel like a natural part of learning, not a reason to feel discouraged. When students see math as something they can make sense of and enjoy, they develop the skills to think critically and creatively in all areas of life.

Statement 2: Every Student Deserves Meaningful and Relevant Math Learning

Math should be **accessible, engaging, and connected to real life.** Every student deserves math instruction that helps them **see its purpose**—whether in everyday decisions, future careers, or understanding the world around them. This means making sure math is taught in a way that **values different ways of thinking**, encourages problem-solving, and reflects students' diverse backgrounds and experiences. To make this happen, we need to support teachers with the tools and training to create **math classrooms where every child feels capable, included, and excited to learn.**

These statements communicate the mathematical experience students need. They can help the field move forward in working to provide the best educational experience for our students in mathematics.

The group of leaders in mathematics education who contributed to these two statements are included below.

Next Steps

Building on the momentum of this convening, we are forming a committed group of educators and leaders dedicated to advancing mathematics education. This group will collaborate on pathways/approaches for meaningful improvements, share innovative strategies, and engage in ongoing discussions to drive change. If you are passionate about shaping the future of mathematics education and want to be a part of this initiative, we invite you to join us. Sign up at tinyurl.com/youcubedleadergroup and be part of the movement to make mathematics learning more engaging, inclusive and impactful for all students.

The following individuals endorse these statements:

Bernadette Salgarino, Mathematics Coordinator, County Office of Education	**Kristopher J. Childs, Chief Academic Officer**
Bernat Portell, Innovomat	**Kristy Warren, Director, Curriculum & Instruction**
Beth Hawkins, Mathematics Specialist	**Latrenda Knighten, NCTM President**
Blaine Hawkins, Mathematics Specialist	**Lynn Panther, K-12 STEM Coordinator/Instructional Coach**
Christina Lincoln-Moore, Elementary Mathematics Coordinator II Curriculum and Instructional Services	**Marité Barboza, Teacher**
Cole Sampson, Chief Curriculum & Instruction Officer	**Marti Lane, Graduate Student**
Crystal Cammon, District Mathematics Coach	**Matt Rector, Mathematics Department Chair**
Dale Leibforth, Director of Early College & Career Experiences	**McKenzie Rokosz, Mathematics Intervention**
Dionne Aminata, PreK-12 Mathematics Education Expert	**Melodie Baker, Executive Director**
Erin Fender, Director of Curriculum and Instruction	**Mikila Fetzer, Mathematics Coordinator, Curriculum & Instruction**
Fawn Nguyen, Director, STEM Initiatives	**Pam Seda, Founder and CEO of Seda Educational Consulting**
Gabriela Mitchell, Director of Special Projects - Mathematics	**Rebecca Lewis, Education Consultant**
Germán Robledo, Mathematics Specialist	**Rosa Serratore, Education Consultant and CMC Board**
Hilda Wright, Mathematics Coordinator	**Sarah Nolan, Teacher**
James Tanton, Mathematician	**Shelby Craig, Teacher**
Jessica Gentry, Educational Specialist	**Sue Chapman, Adjunct Professor and Professional Learning Consultant**
Jonathan Shiller, Upper Division Math Specialist	**Tom Kramer, Mathematics Specialist**
Julie Vazquez, Elementary Math TOSA	**Tracy Clark, Teacher**
Karie Mullassery, Secondary Mathematics TOSA	**Trisha Smith, Assistant Superintendent**
Keith Devlin, Mathematician	**Vince Wolfe, Academic Coach**
Kendra Coates, Director of Mindset and Social and Emotional Learning	**Zandi Lawrence, ELD Coordinator**
Kevin Rees, Mathematics Department Chair	