Title: Conceptual Understanding, Executive Functions and Equity: 3 Areas for Big Change in the Classroom
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Session Overview

Deep conceptual understanding and complex problem solving skills are important for students' math success. Learn how equity-centered practices infused with strategies to strengthen and support students' Executive Function skills come together to support powerful math learning for *all* students.

The session focuses on new ways of thinking about how to support students with their conceptual understanding and their complex problem solving skills across all mathematical domains. This will broaden teachers' ability to enact the Effective Math Teaching Practices from Principles to Action, in ways that support students' ability to effectively develop the standards for mathematical practice outlined in the Common Core.

This session will dig deep into equity-centered practices designed to support a classroom culture that honors and is responsive to students' backgrounds, experiences, cultures and knowledge, and centers the ways in which we can specifically attend to ensuring that that all students attain high levels of mathematics achievement. This session posits that Centering complex problem solving and deep conceptual understanding is an equitable practice often unafforded to historically marginalized students. Additionally, this session will help teachers see all of their students as capable learners and build strategies to strengthen and build their students' Executive Function skills as means to build student confidence and agency.

This session is intended to focus on grades 3-5.

Participant Learning Outcomes & Session Agenda

Participants will leave this session with a deeper understanding of how to develop students' conceptual understanding and complex problem solving skills through infusing equity-centered practices and strengthening and supporting their executive function (EF) skills.

(10 mins) Hook: How do we develop conceptual understanding in students? Share that our studies show that attending to aspects of executive function, equity and problem solving together lead to powerful results for students.

(20 mins) Equity Centered Practices: Define equity. Share problem based mathematics as a tool for equity. Discuss belonging, inclusion and collaboration as equity centered practices.

(20 mins) Executive Functions: Explain what EF are, that they can be developed and describe the ways in which they impact student learning.

(10 mins) Putting It All Together: Share examples and results from this approach. Participants brainstorm how these ideas can be incorporated into their classroom contexts and content.