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Bridget Kinsella Druken* (bdruken@fullerton.edu). *What P-12 Pre-service Teacher Coursework and Math Camps Tell Us about Low-floor, High-Ceiling Tasks.*

Engaging students in rich, worthwhile tasks that engender the mathematical problem solving lies at the heart of doing mathematics. Research in the teaching and learning of mathematics continues to reveal helpful insights into ways to support all doers of mathematics. In this talk, a mathematics teacher educator who teaches mathematics content courses to future P-12 teachers and co-coordinated a math camp for middle schoolers shares tasks and ideas about criteria for engaging students in rich mathematics, including procedural fluency, conceptual understanding, strategic problem solving, adaptive reasoning, and productive disposition. Routines, problems, and games developed for mathematics content courses for future P-12 teachers and math camp participants will be shared to highlight ways to develop and facilitate low-floor, high-ceiling tasks math circles. (Received March 04, 2020)