

*You are cordially invited to attend the  
MSU Mathematics Education Colloquium*



**Leslie Dietiker**

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Wednesday, November 30, 2022  
3:00-4:30 p.m.

252 Erickson Hall  
or

<https://msu.zoom.us/j/98171049554>  
Passcode: GOGREEN

## **Characteristics of HS Mathematics Lessons that Increase Opportunities for Captivation**

*Abstract: Why do some high school mathematics lessons captivate high school students and others not? This study explores this question by comparing how the content unfolds in the lessons that students rated highest with respect to their aesthetic affordances (e.g., using terms like “intriguing”, “surprising”) with those the same students rated lowest with respect to their aesthetic affordances (e.g., “just ok”, “dull”). Using a framework that interprets the unfolding content across a lesson as a mathematical story, we identified characteristics of lessons that provoked curiosity or enabled surprise. This talk will explain the methodological approach to studying this question, as well as share the lesson characteristics that related strongly to student experience. These findings point to the characteristics of future lesson designs that could enable more students to experience curiosity and wonder in secondary mathematics classrooms.*

### **Bio:**

Leslie Dietiker graduated with a PhD in mathematics education from MSU. She is currently an Associate Professor of mathematics education at Wheelock College of Education & Human Development at Boston University. Her research focuses on the forms and functions of curriculum in mathematics textbooks, teacher plans, and classrooms. She explores the curricular work of teaching across K-12, with an emphasis at the secondary level. Dr. Dietiker was a high school mathematics teacher in San Francisco prior to graduate school and is the lead author on seven problem-based textbooks with CPM Educational Program. In 2021, Dr. Dietiker was awarded the Metcalf award, the highest award at Boston University for her teaching.

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