

# The Sowder Mathematics and Science Education Research Seminar Series 2015-2016

## The language-identity dilemma: How language, race, and culture limit STEM students' learning



Bryan A. Brown  
Associate Professor  
Science Education  
Stanford University

Monday, November 9, 2015

Seminar: 9:00-10:00 am

Q&A: 10:00-10:30 am

Natural Sciences Building  
Auditorium (Room 1205)  
UC San Diego

This talk explores how language and cognition combine to create a powerful learning hurdle for students. As students learn science they are challenged to learn new language and new concepts simultaneously. The unintentional result is that students are often placed in contexts where they fail to understand the concepts and fail to understand the words used to describe those concepts. Conversely, teachers are often left unaware of how language represents what students know. Through a series of qualitative and small-scale quantitative experiments, this talk explains how language, race, and learning are intricately connected in STEM learning. The talk identifies how small alterations in instructional practice can support learning despite these challenges.

Sponsored by the joint Ph.D. program in Mathematics and Science Education (MSED) at the University of California San Diego and San Diego State University, as well as a charitable gift from Judy and Larry Sowder

Contact: Stanley Lo (sml@ucsd.edu)