Listening for Meaning: Word Coinage as an Underexplored Mathematical Practice

Dr. José Martínez Hinestroza
Texas State University
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Abstract: This presentation will explore the creation and evolution of mathematical terminology as part of “languaging mathematics” (Barwell, 2018, p. 162). I will focus on the coinage of words as a meaningful mathematical practice that is frequently overlooked in K–6 classrooms. To illustrate my interpretive data analysis informed by tenets from translanguaging (García & Wei, 2014) and from raciolinguistics (Flores & Rosa, 2015), we will take a look at two examples from elementary bilingual classrooms. Specifically, we will discuss how students’ seemingly trivial made-up words can be a meaningful way of languaging mathematics. I will argue that legitimizing students’ engagement in the mathematical practice of creating terminology entails a shift in how teachers and researchers often listen: From listening for accuracy in the use of predetermined academic terminology to listening for mathematical meaning in students’ creative word coinage. As I continue my exploration of these ideas, I will invite discussion on how we may approach mathematical terminology as a source of meaning and as a way of disrupting problematic aspects of the separation of home and academic language practices.

Dr. José Martínez Hinestroza is an assistant professor in elementary mathematics education at Texas State University. A former school teacher, he earned his Ph.D. in Curriculum, Instruction, and Teacher Education from Michigan State University. José’s work focuses on bilingual mathematics education, including teaching and learning in bilingual classrooms and the preparation of pre-service teachers to teach bilingual children. Through his participatory research, he has engaged in prolonged collaborations with teachers. His work has been published in both research and practitioner-oriented journals, including the International Journal of Qualitative Studies in Education, the Elementary School Journal, Teaching for Excellence and Equity in Mathematics, and Mathematics Teacher: Learning and Teaching PK–12.