

Designing Embedded Language and Literacy Supports for Developmental Mathematics Teaching And Learning

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This paper describes an analytic approach to designing embedded language and literacy supports in developmental mathematics curricular materials. This design initiative identifies and addresses barriers that the language and literacy demands of developmental mathematics courses can produce for students, particularly those who are non-English background learners, or who struggle with reading and writing. The authors describe a systematic approach to documenting and creating a taxonomy of important literacy revisions and recommendations. The paper also discusses examples of instructional routines and strategic reading-to-learn tools for students.



Kimberley Gomez is associate professor of Urban Schooling in the Graduate School of Education and Information Studies at UCLA. Her research explores how cognitive and social interaction elements of learning environments serve to make STEM content more accessible for non-English background students and those with low levels of literacy skills. Her research and design efforts span middle school through community college. In a second line of research, Gomez explores the affordances of social learning networks and their utility in meeting the interactional needs of traditionally underrepresented users. Gomez is Senior Fellow for Literacy and Language Development at the Carnegie Foundation for the Advancement of Teaching.

Katherine Rodela is a PhD candidate in Anthropology of Education at Stanford University. Her work focuses on culture, race, gender, and language in education, especially Latin and immigrant student experiences. Her dissertation analyzes how Latina immigrants navigate U.S. school culture in preparing their children for kindergarten. On the Language and Literacy Team since April 2011, Katherine continues to work on issues of language and literacy to make mathematics accessible for all students.





Maritza Lozano is a doctoral student in the Urban Schooling program at the UCLA Graduate School of Education and Information Studies. Her work focuses on the teaching of writing, and how standardization, curricula, assessment, and accountability, contribute to teachers' instructional practices and students' identity development. Maritza joined the Language and Literacy Team in May 2011. She continues to work on issues of language and literacy in an effort to make content accessible for all learners.

Nicole Mancevice is a graduate student in the Urban Schooling PhD program at UCLA. Her work focuses on the relationship between language and literacy skills and learning in science and mathematics. Nicole has been a member of the Language and Literacy Team since November 2011.

