What matters for learners in linguistically diverse classrooms?

In this talk, I will discuss which factors contribute to mathematics gains of learners in Texas middle schools including teacher education, mathematical knowledge for teaching (MKT), mathematical quality of instruction (MQI), and quality of instruction in linguistically diverse classrooms. Teachers’ time spent in professional development activities and general quality of instruction had positive and significant effects for all learners, with much larger effect on learners that are English proficient. For students that are learning English as a second language, teachers’ practices affording their linguistic diversity had a positive and significant effect.

M. Alejandra Sorto received her Ph.D. from Michigan State University in 2004 in Mathematics Education. She is currently a faculty member of the Mathematics Department at Texas State University. Her research focuses on the preparation of teachers in the area of Statistics, the impact of professional development, and comparative studies in Latin-America and Africa. In particular, she is interested in developing instruments to measure content knowledge for teaching, teaching quality and analyzing its effect on student achievement. She has worked with governments of Cambodia, Chile, Dominican Republic, Guatemala, Honduras, and Peru to help improve the preparation of teachers in mathematics and develop educational standards. Most recently, the National Science Foundation (NSF) awarded her a CAREER research grant to investigate the Mathematics instruction of English language learners in the state of Texas.