Abstract:

I have been invited to be a participating researcher from the United States as part of the collaboration for international research with University of North Texas (UNT) and universities in Thailand through the Center for Research in Mathematics Education at Khon Kaen University in Khon Kaen. UNT has a long-standing collaboration with this university in Thailand and is seeking to expand collaborative efforts through research in mathematics education. A research roundtable has been set up and will begin initial research planning and collaboration with an on-site visit by the U.S. delegation to Thailand October 25 - November 1, 2013. Online exchanges will occur as part of this network, both before and after the roundtable.

Invited participants will engage in research groups formed around three distinct strands that are important for continued improvements in our collective understandings of the best ways to teach algebraic reasoning to students. These three strands include:

1. Teachers Use of Just-In-Time Formative Assessment to Impact Student Learning
2. Models of Lesson Study That Impact Policy Decisions at the Systemic Level
3. Developing Teachers Mathematical Knowledge for Teaching to Impact Pedagogical Changes.
These three areas selected will be applied within and among the improvements of teaching and learning of algebraic reasoning through teacher education, professional development, and student interventions.

During the roundtable we will identify specific research agendas and draft proposals for such research around the areas listed above. The goal is to implement these projects during the next year. The roundtable will include visits to area schools to observe middle grade education in Thailand. This research network is intended to build a new community of scholars who will impact the teaching and learning of algebraic reasoning in middle schools in both Thailand and the United States. The objective of this research network is to expose the gaps in the literature related to the teaching and learning of algebraic reasoning and then develop, implement and disseminate research projects to address these gaps.