Early Grade Mathematics Assessment across the World

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Abstract: The United State Agency for International Development (USAID) in partner with Research Triangle International (RTI) have developed an Early Grade Mathematics Assessment (EGMA) to measure the most fundamental mathematical skills for which research have shown to be highly predictive for later success in mathematics. The instrument is orally administered in a language they understand, making it possible to assess children on what they know before they can correctly respond to questions on traditional paper-and-pencil tests. The core components include counting, number identification, quantity comparison, pattern completion, word problems, and basic operations. Additional components related to relational and spatial reasoning are in developing stages. The assessment has been used in Nicaragua and several African countries such as Kenya, Liberia, Democratic Republic of Congo, Malawi, Rwanda and Mali. In this seminar, I will present the development process of the instrument, administration issues, and results from a national pilot in Nicaragua (N = 1,824) in Grade 2 – 4.

Professor Sorto received her Ph. D. from Michigan State University in 2004. Her research focuses on the preparation of teachers in the area of Statistics and multivariate studies of mathematics achievement at a large scale in different contexts around the globe. In particular, she is interested in developing instruments to measure content knowledge for teaching and analyzing its effect on student achievement.