Using Multimedia Case Studies to Help Teachers Learn About Inclusion in the Elementary Mathematics Classroom

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Abstract: In this session we will demonstrate how we are using multimedia case studies to help broaden the preparation of teachers to teach mathematics in K-6 inclusion classrooms. We will show multimedia case studies and learning experiences that we have incorporated into methods courses at Bank Street College and share findings from our formative research. Participants will be invited to discuss ways in which these resources might fit into their own course contexts.

Standards-based reform is bringing increased rigor and quality into mathematics education for all students. These reforms, however, have not been fully available to students with physical, developmental, sensory, and learning disabilities because teachers are often not well prepared to implement standards-based mathematics education with heterogeneous groups of students that include students with disabilities. Bank Street College of Education is collaborating with the EDC/Center for Children and Technology to develop digital resources for pre-service and in-service professional development to better prepare teachers for serving students with and without disabilities within a standards-based mathematics curriculum.

Building on the lesson study approach and utilizing the case method we are developing five modules of digital professional development resources. Each module consists of at least two multimedia case studies of teaching events involving students with disabilities in mathematics classrooms as well as activities that guide users in their interaction with the case materials. Each module focuses on one of the five NCTM content standards (number and operations, algebra, geometry, measurement, data analysis and probability), integrates one or more of the five process standards (problem solving, reasoning and proof, communication, connections, and representation), and highlights key issues that need to be addressed in broadening the preparation of teachers to serve diverse learners.

We are pilot-testing the prototype case materials and learning activities in several pre-service and in-service teacher education courses at Bank Street College of Education. As part of this work we are learning how to refine the design of the case materials and learning activities so that they support teaching and learning about inclusion in a specific content area.

The purpose of this session is to share our findings, to obtain feedback from participants, and to encourage the use of our materials in other teacher education programs. Participants will be invited to participate in hands-on exploration of learning activities and discussions of the case materials. We will conclude with a reflective discussion in which we invite participants to give us feedback on the design and use of the multimedia case studies and ask them to explore how these resources might fit into the contexts of their courses.