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Large-scale External Assessment and Improvement of Teaching and Learning Mathematics in Classrooms: A Japanese Perspective

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Abstract

Mathematics education in Japan is currently in its transition period and faced with some issues in implementing the new educational policy. The new National Course of Study was released in 2008 and has been implemented at elementary schools in 2011, and will also be implemented at junior and senior high schools in 2012. The new national assessment of academic ability was introduced in 2007 for the first time in 43 years, prior to the release of the new curriculum standards. Aligned with the goals and contents specified by the national curriculum standards, the new assessment in mathematics focuses on students' ability of functional use of mathematics. In this talk, I discuss the issues raised by the introduction of the new national assessment and prospect for the use of assessment results for improving classroom teaching and learning. The framework for the mathematics assessment and several sample items are reviewed to describe key findings from the new assessment and how assessment items and their results can be used for the improvement of classroom teaching and learning. There is a tension between large-scale assessment and classroom assessment in their differences of purpose, method, emphasis, and audience. Although the alignment of assessment with curriculum standards is a key for improving classroom teaching and learning, assessment should also be aligned with and central to teaching mathematics in classrooms.