

Archived Information

University of Louisville Diagnostic Teacher Assessments in Mathematics

Goal: Improving Teacher Quality

Brief Summary:

The University of Louisville Center for Research in Mathematics and Science Teacher Development (CRMSTD) has formed teams of mathematicians, mathematics educators, and middle school teachers to create web-based assessments for preservice and practicing middle school teachers. The mathematics content of the assessments are derived from national recommendations from groups like NCTM, MAA, AMS, NBPTS, NCATE, and Achieve; results from national and international assessments like NAEP, TIMSS, and PRAXIS; and research on student and teacher misconceptions. Upon completing the assessments online, preservice teachers, practicing teachers, and others will receive feedback regarding the breadth and depth of mathematics knowledge in four areas: number/computation; geometry/measurement; probability/statistics; and algebra.

Purpose:

The purpose of the assessments are to provide (a) teachers information about the breadth and depth of their knowledge of middle school mathematics, as well as their readiness for PRAXIS examinations; (b) teacher educators evidence with regard to preservice teachers' strengths and weaknesses in mathematics; (c) school administrators information about professional development needs in mathematics; and (d) mathematicians feedback regarding the effectiveness of their mathematics courses for teachers.

Accomplishment/Results:

To date the four teams have reviewed recommendations, assessment results, and research on misconceptions and identified key topics to be assessed in each of the four areas.

Plans for the Next 12 Months:

Working with experts in evaluation and measurement, the teams will identify or develop open-response assessment items, field-test them with groups of teachers, and create scoring guides. Once multiple forms of valid and reliable assessments have been developed, they will be placed on the web for use by teachers, postsecondary faculty, and school administrators across the country.

Funding:

Funding for this project comes through federal apportionment funds awarded to the CRMSTD at the University of Louisville in 2002 and 2003.

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