Educational Researcher Devotes December Issue to Report of the National Mathematics Advisory Panel

WASHINGTON, December 8, 2008-The December 2008 issue of Educational Researcher (ER) provides a timely scholarly examination of Foundations for Success: The Final Report of the National Mathematics Advisory Panel. With peer-reviewed articles from leading education research experts, and under the guest editorship of Dr. Anthony E. Kelly of George Mason University, this ER issue presents diverse perspectives on substantive research in mathematics education and contributes to the discussion of valid methodological approaches.

The National Mathematics Advisory Panel (NMAP) was created in April 2006 by executive order of President George W. Bush to advise the U.S. Secretary of Education on ways to improve mathematics instruction across the nation. After two years of extensive research and hearings held around the United States, the panel prepared a final report that synthesized existing research and offered 45 recommendations on mathematics education.

The December ER picks up where the Foundations for Success report leaves off, by creating a forum for scientific dialogue and an exchange about broad strategies in the conduct of mathematics research. Eleven articles address a range of opportunities and challenges in preparing teachers and children to deal with critical 21st-century issues in mathematics education.

With an introduction by Guest Editor Anthony E. Kelly and rejoinder by Mathematics Panel Chairs Camilla Persson Benbow and Larry R. Faulkner, the special issue of ER is an invaluable resource for experts who seek to develop a coherent strategy for research and for policymakers who make critical decisions about mathematics education. According to Benbow and Faulkner, the dialogue presented in this ER issue "adds intellectual depth to what has become a national policy discussion."

A majority of the contributing researchers took issue with the NMAP's heavy reliance on quantitative studies. Hilda Borko and Jennifer A. Whitcomb, in their commentary on teaching and teacher education, summed up a common theme: "Different designs and methods are better for different purposes....multiple types of scientific inquiries and methods are required to generate the rich body of scientific knowledge needed to improve education."
In addition to the panel's narrow filter for research, scholars' concerns included:

- lack of clear framing of measurement issues;
- focus on content knowledge to the exclusion of pedagogical content knowledge; and
- failure to address achievement disparities through improved mainstream instructional practices.

The researchers noted that the report, while summarizing each subpanel's report, contained no integrative work. Patrick W. Thompson, in his commentary on curricula content, wrote that the panel's "emphasis on proficiency with standard procedures in arithmetic and its lip service to 'conceptual understanding' will do little to address the fundamental problem of mathematics education in the United States-namely, the systematic inattention to students' development of meanings that will support an interest in mathematics that results in taking more, and higher level, coursework."

This special issue of the *Educational Researcher* aims at adding information and insights for research and evidence-based policy related to mathematics education. These *ER* articles "are intended to broaden the terms of the ongoing discussion of effective instruction as well as to draw sharp distinctions where there is disagreement," concluded Kelly.

Special December *ER* issue on *Foundations for Success: The Final Report of the National Mathematics Advisory Panel*

- Reflections on the National Mathematics Advisory Panel Final Report
  **Anthony E. Kelly**, George Mason University

- Teachers, Teaching, and Teacher Education: Comments on the National Mathematics Advisory Panel's Report
  **Hilda Borko**, Stanford University, and **Jennifer A. Whitcomb**, University of Colorado, Boulder

- The Consequences of Experimentalism in Formulating Recommendations for Policy and Practice in Mathematics Education
  **Paul Cobb** and **Kara Jackson**, Vanderbilt University

  **Patrick W. Thompson**, Arizona State University

- When Politics Took the Place of Inquiry: A Response to the National Mathematics Advisory Panel's Review of Instructional Practices
  **Jo Boaler**, University of Sussex

Joanne Lobato, San Diego State University

- Commentary on the National Mathematics Advisory Panel Recommendations on Assessment
  Lorrie A. Shepard, University of Colorado, Boulder

  Jeremy Roschelle, Corinne Singleton, Nora Sabelli, SRI International; Roy Pea, Stanford University; and John D. Bransford, University of Washington

- Commentary on the Final Report of the National Mathematics Advisory Panel
  James G. Greeno, University of Pittsburgh, and Allan Collins, Northwestern University

- Randomized Trials in Mathematics Education: Recalibrating the Proposed High Watermark
  Finbarr C. Sloane, Arizona State University

- Breaching the Conditions for Success for a National Advisory Panel
  Jere Confrey, Alan P. Maloney and Kenny H. Nguyen, North Carolina State University

  James P. Spillane, Northwestern University

- Rejoinder to the Critiques of the National Mathematics Advisory Panel Final Report
  Camilla Persson Benbow, Vanderbilt University, and Larry R. Faulkner, Houston Endowment

Editor's Note: Educational Researcher is a peer-reviewed journal published by the American Educational Research Association. The journal is dedicated to publishing education research of the highest quality on issues of wide significance, concern, and interest to the education research community and education. The full text of the December issue of Educational Researcher is posted on the AERA Web site at www.aera.net.

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The American Educational Research Association (AERA) is the national interdisciplinary research association for approximately 25,000 scholars who undertake research in education. Founded in 1916, AERA aims to advance knowledge about education, to encourage scholarly inquiry related to education, and to promote the use of research to improve education and serve the public good.