

National Mathematics Advisory Panel Final Report

NWRCC Mathematics Learning
Community

May 22, 2008

Agenda

- Welcome and introductions
- Using WebEx features
- Background of Math Panel
- Six Principal Messages from the Panel
- Implications for SEAs
- Support from NWRCC

Welcome and Introductions

- Introduction of NWRCC staff
 - Math Theme Team
 - Next regional math symposium, tentative date: Nov 6-7, 2008
- Introduction of SEA participants
 - Name, state, role
 - Are you using WebEx for this call?
 - features

Background

- President Bush created the National Mathematics Advisory Panel in an executive order in April 2006
 - Twenty-eight members
 - Twelve meetings
 - Seventy-one public comments
 - Final report released March 2008
 - <http://www.ed.gov/about/bdscomm/list/mathpanel/index.html>

Purpose

- To advise the President and Secretary on ways “...to foster greater knowledge of and improved performance in mathematics among American students”
 - Emphasis on the preparation of students related to success in Algebra
 - Required to rely upon “best available scientific evidence”

National Math Panel Processes

- Task Groups
 - Conceptual Knowledge and Skills
 - Learning Processes
 - Instructional Practices
 - Teachers and Teacher Education
 - Assessment
- Subcommittees
 - Standards of Evidence
 - Survey of Algebra I Teachers
 - Instructional Materials

Standards of Evidence

- General principals
 - Strongest confidence placed in studies that
 - test hypotheses
 - meet high methodological standards
 - have been replicated under varied conditions
 - Each task group expressed the standards of evidence in a particular way and documented this in their subgroup report
 - Panel also considered promising or suggestive findings that could be the subject of future research

National Dissemination

- Final Report Webcast Briefing
 - Archived on ed.gov
- Title I meeting
 - Mathematics Success in Title I Schools: Lessons Learned From The National Math Panel Report
 - May 15-16, 2008

Program Agenda

May 15- 16, 2008

- Conceptual Knowledge and Skills:
Standards and Implications for Title I
- Teachers & Teacher Education:
Professional Development and
Implications for Title I
- Instructional Practices and Learning
Processes: Implications for Title I

Program Agenda (cont)

- Statewide Systems of Support in Mathematics
- Needs Assessment, Data Driven Decision - Making in Mathematics
- Use of Resources in Mathematics

Principal Messages

- “The essence of the Panel’s message is *to put first things first*. There are six elements, expressed compactly here, but in greater detail later.”
- Found on pages xiii-xiv of the Executive Summary

Six Principal Messages (1)

The mathematics curriculum in Grades PreK–8 should be streamlined and should emphasize a well-defined set of the most critical topics in the early grades.

Six Principal Messages (2)

Use should be made of what is clearly known from rigorous research about how children learn, especially by recognizing a) the advantages for children in having a strong start; b) the mutually reinforcing benefits of conceptual understanding, procedural fluency, and automatic (i.e., quick and effortless) recall of facts; and c) that effort, not just inherent talent, counts in mathematical achievement.

Six Principal Messages (3)

Our citizens and their educational leadership should recognize mathematically knowledgeable classroom teachers as having a central role in mathematics education and should encourage rigorously evaluated initiatives for attracting and appropriately preparing prospective teachers, and for evaluating and retaining effective teachers.

Six Principal Messages (4)

Instructional practice should be informed by high-quality research, when available, and by the best professional judgment and experience of accomplished classroom teachers. High-quality research does not support the contention that instruction should be either entirely “student centered” or “teacher directed.” Research indicates that some forms of particular instructional practices can have a positive impact under specified conditions.

Six Principal Messages (5)

NAEP and state assessments should be improved in quality and should carry increased emphasis on the most critical knowledge and skills leading to Algebra.

Six Principal Messages (6)

The nation must continue to build capacity for more rigorous research in education so that it can inform policy and practice more effectively.

Next Steps

- Next call
- Topics of interest