Research in Mathematics Education: Looking Back and Looking Forward

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AWM Anniversary Conference
September 17, 2011
Brown University
Providence RI
Major Topics

- Development of Mathematics Education Research Community – Some History
- Role of Mathematics
- Research Themes and Questions – Past, Current and Future
From Amateur to Professional Status

Haskell (1977) - 3 phase process

① A community of inquirers is established

② The members distinguish themselves from other groups and from the society at large

③ The community enhances communication among its members, organizing and establishing standards of quality
Some of the early inquirers

- David Eugene Smith – Teachers College
- J.W.A. Young – University of Chicago
- William A. Brownell – Duke/UC Berkeley
- Henry Van Engen – Iowa State Teachers College/University of Wisconsin
- E. Glenadine Gibbs – Iowa State Teachers College/University of Texas
- Edward Begle – Stanford University
- Robert Davis – Syracuse University
Distinguishing Themselves

• Mathematics and Psychology
• Research Summaries
• Conferences – Setting Research Agendas
  • 1967: University of Georgia
    • Patrick Suppes – needed research in learning of mathematics
    • Tom Romberg and M. Vere DeVault – needed research in curriculum
    • Robert Davis – needed research in the teaching of mathematics
Organizing and Enhancing Communication

- Educational Studies in Mathematics (1958)
- JRME (1960)
- NCTM Research Advisory Committee (1965)
- SIG- RME (1968)
- CBMS Issues in Mathematics Education (1994)
Setting Standards

- Journals
- National Science Foundation and other funding agencies
- Preparing the Next Generation
Research Themes/Trends

- 1920s–1950s – social utilitarian and meaning theory
- Late 1950s – early 1960s – “new math” focus
- Late 1960s – pedagogy, learning particular topics, developmental issues
- 1970s and 1980s – tremendous growth in quantity and variety, more programmatic and systematic approach
- First Handbook of Research in Mathematics Education - 1992
- Research in Undergraduate Mathematics Education
Current/Future Themes and Trends

• Mathematical Knowledge for Teaching

• Standards and Assessment of Learning

• Role of curriculum

• Role of technology
Questions?
Thank You!
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