

# **DG10 THE RISE AND FALL OF MATHEMATICS EDUCATION RESEARCH**

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The findings of research can and should be an integral part of the cycle of educational change. As such, research must be more than sets of fragmented or narrowly focused studies that are of interest mainly to small communities of like-minded researchers. There is a pressing need for a coordinated, cohesive body of quality evidence that is of use to the wider community – to inform curricular design, policy decisions, teacher preparation, and so forth. Larger, long-term studies, as well as syntheses of existing research, that are relevant and readily available to the practitioner, are crucial.

Research communities must respond to the charges placed upon them. In the United States, for example, recent national legislation has mandated that program development and evaluation be formulated on “evidence-based practice” and findings from “scientific research.” How we respond to such external demands and perceptions may affect our very existence.

## **SESSION I**

A short 20 minute presentation will address the major concerns of the wider community towards existing trends in mathematics education research. Participants will then select one of three different facilitated Focus Groups to react to the presentation.

Focus Group perspectives: 1) Research Cycle, 2) Assessment, 3) Policy

Suggested questions for discussion.

- What constitutes quality scientific research?
- How can we tell that what we did was valuable, to whom, with what students, and for how long? How are research results disseminated, and in what form?
- How should we articulate criteria for acceptable evidence? - for example, criteria for acceptable evidence of “understanding” and of “knowledge”?
- How can groups such as PME and PME-NA increase the quality of research?

## **SESSION II**

Short summaries of the three Focus Groups will be presented at the beginning of the session. Participants will continue the discussion, with a focus on an action plan for disseminating the results of the Discussion Group.