

Archived Information

Mathematical Sciences Education Board

DEVELOPING A RESEARCH BASE

Mathematics Learning Study (MLS)

Goals of the Activity

- To synthesize the rich and diverse research on pre-kindergarten through eighth-grade mathematics learning;
- To provide research-based recommendations for mathematics teaching, research, and curriculum for improving student learning and to identify areas where research is needed; and
- To give advice and guidance to educators, researchers, publishers, policy makers, and teachers.

Brief Summary: MLS I resulted in two National Academy Press publications: *Adding it Up: Helping Children Learn Mathematics* and its targeted version *Helping Children Learn Mathematic*. These publications meet the above goals.

Purpose: Same as Goals above.

Accomplishments/Results: A Mathematics Learning Study Symposium was held September 14 and 15, 2002, to acquaint the assembled audience of over 100 practitioners in mathematics education with these research syntheses and how to use knowledge gained from them in their work. This Symposium resulted in many practitioners sharing their new knowledge in their local settings: a seminar at the Department of Mathematics, Grand Valley State University, Michigan, a presentation to the Massachusetts NCTM Affiliate Meeting with an article appearing in their newsletter, a presentation to the Missouri State Teachers Organization and to the Missouri Association of Elementary School Principals, a presentation to Ohio School Board Association, and presentations to Texas teachers and mathematics supervisors. There was also a demand for over 8,000 additional copies of these publications.

Plans for the next 12 months: An afternoon of round-table discussion on implementing the five-strand concept of mathematical proficiency, discussed in the two publications, will be held at the annual meeting of the State Supervisors of Mathematics in April. Further dissemination of the two publications will continue.

A Mathematics Learning Study II – Grades 9-14 is in the planning stages. This volume will synthesize research on the teaching and learning of mathematics grades 9-12, with emphasis on the transitions between high school and college, problems of remediation in mathematics at the college level, and pathways to reenter mathematics at various times in one's life.