

## Summer Institute 2011



Our 31st Annual  
MASP Summer  
Institute!

*Parts and “Holes”  
Gaps in Children’s  
Mathematics Achievement*

Presenter

One of the world’s leading  
authorities on how children develop

understanding of mathematics, [Michèle M.M. Mazzocco](#) is a professor at [Johns Hopkins School of Medicine](#). She is the principal investigator for the Math Skills Development Project at the [Kennedy Krieger School](#). With Daniel B. Berch, she is the co-editor of [Why Is Math So Hard for Some Children?: The Nature and Origins of Mathematical Learning Difficulties and Disabilities](#), a respected book that provides, in the words of one fan, "an exceptional review of literature on LD in maths."

Dr. Mazzocco initiated the [Math Skills Development Project](#) in 1997, through which she has followed a group of students from kindergarten through 9th grade (so far!). This project involves an extensive study of normally developing children, children who have learning disability not associated with a genetic condition, and children who have genetic conditions that are known to contribute to math disability. The focus of the research is to seek an understanding of how cognitive, behavioral, and genetic factors contribute toward successful mathematics achievement.

## Links to on-line resources

### Useful websites and policy reports

[Report of the National Mathematics Advisory Panel](#) (2008). From this link you can download the entire report, or each subcommittee report separately.

[Best Evidence Encyclopedia](#). Johns Hopkins University School of Education. From the website: “The Best Evidence Encyclopedia” is a free web site created by the

Johns Hopkins University School of Education's Center for Data-Driven Reform in Education (CDDRE) under funding from the Institute of Education Sciences, U.S. Department of Education. It is intended to give educators and researchers fair and useful information about the strength of the evidence supporting a variety of programs available for students in grades K-12. (It) provides summaries of scientific reviews produced by many authors and organizations, as well as links to the full texts of each review. The summaries are written by CDDRE staff members and sent to review authors for confirmation.”

Institute for Education Sciences’ [What Works Clearinghouse](#)

Institute for Education Sciences’ [Practice Guides](#)

Multiple authors: [Online encyclopedia](#) presents lay-oriented brief reviews of numeracy topics that may be a useful resource to share with parents, teachers, etc. See section on Numeracy which includes a section on [Numeracy Difficulties and Disorders](#).

National Council for Teachers of Mathematics [website](#) and resources

Mathematical Association of America [website](#)

### **Links to books available for online reading**

Kilpatrick, J., Swafford, J., & Findell, B. (2001). *Adding it up: Helping children to learn mathematics*. Washington, DC: National Academy Press. Available for [online](#) reading.

National Research Council (2005). *How Students Learn: Mathematics in the Classroom*. MS Donovan and JD Bransford, Editors. Division of Behavioral and Social Sciences and Education. Washington, DC: National Academies Press. Available for [online](#) reading.

National Research Council (2009). *Mathematics Learning in Early Childhood*. Cross, Woods, and Schweingruber, Editors. Committee on Early Childhood Mathematics, Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academies Press. Available for [online](#) reading.

### **Links to selected articles and review papers**

Ansari, D. (2009). [Neuroimaging of numerical and mathematical development](#). *Encyclopedia of Language and Literacy Development* (pp 1-8). London, ON: Canadian Language and Literacy Research Network.

Wilson, A. J., Dehaene, S., Pinel, P., Revkin, S. K., Cohen, L., & Cohen, D. (2006). [Principles underlying the design of “The Number Race,” an adaptive computer game for remediation of dyscalculia](#). *Behavioral and Brain Functions*, 2: 20.



## About MASP

A key aspect of the mission of the Montana Association of School Psychologists (MASP) is to promote the educational and mental health needs of all children and youth. The MASP Summer Institute serves educators and other professionals who work with children and youth by offering professional development opportunities that bridge the latest research findings with real-world practice.

## MASP Store



Art Butler faithfully mans the MASP Store at this and every MASP Summer Institute.