

Center for Teaching/Learning of Mathematics

Mission:

*The mission of CT/LM is to improve mathematics instruction for all—
children as well as adults. The goal is to provide access to more
meaningful mathematics, in more meaningful ways, for more learners.*

47 A River St., Wellesley, MA 02181

781 235 7200 (T)

508 788 3600 (F)

info@mathematicsforall.org

www.mathematicsforall.org

Center for Teaching/Learning of Mathematics

Programs and Services

CT/LM has developed programs and materials to assist teachers, parents, therapists, and diagnosticians to help children and adults with their learning difficulties in mathematics. We conduct regular **workshops, seminars, and lectures** on topics such as: How children learn mathematics, why learning problems occur, diagnosis, and remediation of learning problems in mathematics.

1. How does one learn mathematics? This workshop focuses on psychology and processes of learning mathematics—concepts, skills, and procedures. The participants study the role of factors such as: Cognitive development, language, mathematics learning personality, pre-requisite skills, and conceptual models on learning mathematics. They learn to understand how key mathematics milestones such as; number conceptualization, place value, fractions, integers, algebraic thinking, and spatial sense are achieved. They learn strategies to teach their students more effectively.

2. What is the nature and causes of learning problems in mathematics? This workshop focuses on understanding the nature and causes of learning problems in mathematics. We examine existing research on diagnosis, remedial and instructional techniques dealing with these problems. Participants become familiar with diagnostic and assessment instruments for learning problems in mathematics. They learn strategies for working with children and adults with learning problems in mathematics more effectively.

3. Content workshops. These workshops are for teachers and parents on teaching key mathematics milestone concepts and procedures. They learn, for example: **How to teach arithmetic facts easily? How to teach fractions to students more effectively? How to develop the concepts of algebra easily?** In these workshops, we use a new approach called **Vertical Acceleration**. In this approach, we begin with a very simple concept from arithmetic and take it to the algebraic level.

We offer **individual diagnosis and tutoring services** for children and adults to help them with their mathematics learning difficulties and learning problems, in general, and dyscalculia, in particular. We provide:

1. Consultation with and training for parents and teachers to help their children cope with and overcome their anxieties and difficulties in learning mathematics.
2. Consultation services to schools and individual classroom teachers to help them evaluate their mathematics programs and help design new programs or supplement existing ones in order to minimize the incidence of learning problems in mathematics.
3. Assistance for the **adult student** who is returning to college and has anxiety about his/her mathematics.

4. Assistance in test preparation (SSAT, SAT, GRE, MCAS, etc.)

The Math Notebook

The Math Notebook addresses issues related to mathematics learning problems, diagnosis, remediation, and techniques for improving mathematics instruction. It translates research into practical, workable strategies that are especially geared towards the classroom teacher, parents and special needs teachers/tutors. Topics cover the range of materials useful for all levels (K-College) of mathematics instruction for regular and special education.

Subscription rates:

One year	Individual	\$20.00
	Institutional	\$40.00
Two Year	Individual	\$35.00
	Institutional	\$70.00
Three Year	Individual	\$40.00
	Institutional	\$80.00

Outside the North American continent, add \$10.00 for extra postage. Back issues are available at a cost of \$2.00 for a single issue, \$3.00 for a double issue, and \$5.00 for special issues.

Selected Back Issues of Math Notebook:

- The Problem of Missing Addend (single)
- Children's Understanding of the Concept of Proportion – Part 1 and 2 (double)
- A Topical Disease in Mathematics: Mathophobia (single)
- Multiplication – Part 1 and 2 (double)
- Prerequisite and Support Skills for Mathematics Learning (single)
- Estimation: An Important Basic Skill (double)
- Pattern Recognition and Its Application to Math (double)

- Visual Clustering and Number Conceptualization (single)
- Mathematics Problems of the Junior High and Senior High School Students (double)
- Mathematically Gifted and Talented Students (double)
- Types of Math Anxiety (double)
- Mathematics as a Second Language (special)
- Developing Visual Thinking in Children (double)
- Memory and Mathematics Learning (double)
- Problems in Algebra - Part 1 and Part 2 (special)
- Games and Their Uses in Mathematics Learning (double)
- Reversal Problems in Mathematics and Their Remediation (double)
- How to Take a Child From Concrete to Abstract (double)
- Levels of Knowing Mathematics (double)
- Division: How to Teach It (double)
- Japanese Soroban: A Tool That Enhances Instruction Through Concrete Learning (double)
- Mathematics Culture (double)
- Mathematics Learning Personality (double)
- Common Causes of Math Anxiety and Some Instructional Strategies (double)
- On Training Teachers and Teaching Math (double)
- Will the Newest “New Math” Get Johnny’s Scores Up? (double)
- Concept of Number I and II (special)
- Dyslexia, Dyscalculia and Some Remedial Perspectives For Mathematics Learning Problems (special)
- Place Value Concept: How Children Learn It and How To Teach It (special)
- Cuisenaire Rods and Mathematics Teaching (special)
- Assessment in Mathematics (special)

Back Issues of Math Notebook

Single issue	\$2.00
Double issue	\$3.00
Special issue	\$5.00

FOCUS on Learning Problems in Mathematics

FOCUS on learning Problems in Mathematics is an interdisciplinary journal, edited jointly by the **Center for Teaching/Learning of Mathematics (CT/LM)** and the **Research Council for Mathematics Learning (RCML)**. The objective of FOCUS is to make available the current research, methods of identification, diagnosis and remediation of learning problems in mathematics. Contributions from fields of education, psychology, mathematics, and medicine having the potential for impact on classroom or clinical practice are valued. Specifically, the types of manuscripts sought for FOCUS include reports of research on processes, techniques, tools and procedures useful for addressing problems in mathematics teaching and learning: descriptions of methodologies for conducting, and reporting and interpreting the results of various types of research, researched-based discussions of promising techniques or novel programs; and scholarly works such as literature-reviews, philosophical statement or critiques.

Published four times a year: Winter, Spring, Summer, Fall.

Subscription rates:	Individual	Institutional
1 year	\$ 60.00	\$ 90.00
2 years	\$105.00	\$160.00
3 years	\$145.00	\$220.00

Back issues of **Focus** are available at \$8.00 per issue. Double issues \$12.00. Outside the North American Continent, add \$10.00 extra for mailing a subscription. Checks or international money orders in U.S. funds drawn on U.S. Banks only. Others will be assessed an extra conversion and handling charge.

Manuscripts for publication should follow the guidelines in the Publication Manual of the American Psychological Association (Third Edition) and be submitted in triplicate to the editor. Editor, *FOCUS ON LEARNING PROBLEMS IN MATHEMATICS*, P.O. Box 3149, Framingham, MA 01705-3149. Manuscripts determined to be appropriate will be sent, with author identification removed, to at least two reviewers. Manuscripts will be reviewed for their uniqueness, significance, accuracy, and potential for impact in the fields of mathematics and special education.

Selected Back Issues of FOCUS are available

(Single issue for \$8.00 and double issue for \$12.00)

The following represents a partial list of special issues. Index is available upon request.

Volume 3, Numbers 2 & 3 (1981)

Educational Psychology and Mathematical Knowledge

Volume 4, Numbers 3 & 4 (1982)

Fingermath: Pedagogical Implications for Classroom Use

Volume 5, Number 2 (1983)

Remedial and Instructional Prescriptions for the Learning Disabled Student in Mathematics

Volume 5, Numbers 3 & 4 (1983)

Mathematics Learning Problems and Difficulties of the Post Secondary Students

Volume 6, Number 3 (1984)

Education of Mathematically Gifted and Talented Children

Volume 6, Number 4 (1984)

Brain, Mathematics and Learning Disability

Volume 7, Number 1 (1985)

Learning Achievement: Implications for Mathematics and Learning Disability

Volume 7, Numbers 3 & 4 (1985)

Using Errors as Springboards for the Learning of Mathematics

Volume 8, Numbers 3 & 4 (1986)

Dyscalculia

Volume 9, Numbers 1 & 2 (1987)

Computers, Diagnosis and Teaching (Part One and Two)

Volume 11, Numbers 1 & 2 (1989)

Visualization and Mathematics Education

Volume 11, 3 (1989)

Research on Children's Conceptions of Fractions

Volume 12, Numbers 3 & 4 (1990)

What Can Mathematics Educators Learn from Second Language Instruction? The Beginning of a Conversation between Two Fields

Volume 13, Number 1 (1991)

Students' Understanding of the Relationship between Fractions and Decimals

Volume 14, Number 1 (1992)

The Psychological Analysis of Multiple Procedures

Volume 15, Numbers 2 & 3 (1993)

Vygotskian Psychology and Mathematics Education

Volume 17, Number 2 (1995)

Perspective on Mathematics for Students with Disabilities

Volume 18, Numbers 1-3 (1996)

Gender and Mathematics: Multiple Voices

Volume 18, Number 4 (1996)

The Challenge of Russian Mathematics Education: Does It Still Exist?

Volume 19, Number 1 (1997)

Components of Imagery and Mathematical Understanding

Volume 19, Number 2 (1997)

Problem-Solution Relationship Instruction: A Method for Enhancing Students' Comprehension of Word Problems

Volume 19, Number 3 (1997)

Clinical Assessment in Mathematics: Learning the Craft

Volume 20, Numbers 2 & 3 (1998)

Elements of Geometry in the Learning of Mathematics

Volume 22, Numbers 3 & 4 (2000)

Using Technology for the Teaching and Learning of Mathematics

Volume 23, Numbers 2 & 3 (2001)

Language Issues in the Learning of Mathematics

Volume 28, Number 3 & 4 (2006)

Concept Mapping in Mathematics

Latest issue Volume 30 Number 1 (2008)

Index of articles in *Focus on Learning Problems in Mathematics* from Volume 1 to 30 available on request.

Individual issue	\$ 8.00
Double issue	\$ 12.00
Each Volume (four issues) is available separately	\$ 25.00
Whole set of 30 volumes is available for	\$250.00

(Postage and handling 15% extra)

Other Publications

Mathematics as a Second Language	\$12.00
How to Teach Arithmetic Facts Easily	\$12.00
Guide for a Mathematics Lesson	\$10.00
How to Teach Fractions Effectively	\$10.00
Math Education at It's Best: Potsdam Model	\$10.00
Multiplication Made Easy	\$10.00
How to Teach Number to Young Children	\$10.00

Videos and DVDs

How Children Learn: Numeracy **\$15.00**

(One-hour long video interviewing Professor Mahesh Sharma on his ideas about how children learn mathematics)

Numeracy Videos and DVDs

(Complete set of six for \$100.00 and individual for \$20.00)

- 1. Teaching arithmetic facts,**
- 2. Teaching place value,**
- 3. Teaching multiplication,**
- 4. Teaching fractions,**
- 5. Teaching decimals and percents, and**
- 6. Professional development: teachers' questions)**

Most children have difficulty in mathematics when they have not mastered the key mathematics milestones in mathematics. The key milestones for elementary grades are: Number conceptualization and arithmetic facts (addition and multiplication), place value, fractions and its correlates—decimal, percent, ratio and proportion. These videos and DVDs present strategies for teaching these key mathematics milestone concepts applying

Prof. Sharma's approach to teaching numeracy. These were videotaped in actual classrooms in the UK.

DO YOU WANT TO IMPROVE MATHEMATICS
INSTRUCTION FOR ALL STUDENTS K- 12?

DO YOU WANT TO KNOW HOW TO DEAL WITH
LEARNING PROBLEMS IN MATHEMATICS SUCH AS
DYSCALCULIA?

DO YOU WANT TO KNOW WHAT THE LATEST
RESEARCH SAYS ABOUT MATHEMATICS LEARNING,
TEACHING AND ASSESSMENT?

DO YOU WANT TO HELP YOUR CHILD LEARN
MATHEMATICS BETTER AND EASIER?

DO YOU WANT TO KNOW WHAT THE REASONS ARE
FOR YOUR CHILD'S DIFFICULTIES IN MATHEMATICS?

DO YOU WANT TO KNOW WHY THERE ARE
UNDERACHIEVING GIFTED CHILDREN?

DO YOU WANT TO KNOW WHAT DYSCALCULIA,
ANARITHMETIA, OR OTHER LEARNING PROBLEMS IN
MATHEMATICS ARE?

Then, you need to subscribe to CT/LM publications.

**CENTER FOR TEACHING/LEARNING OF MATHEMATICS
47 A River St., Wellesley, MA 02181**

781 235 7200 (T)

508 788 3600 (F)

info@mathematicsforall.org

www.mathematicsforall.org

March 2008