

Final Report

To the Board of Directors
By the Family Outreach Taskforce

September 2005

Family Outreach Task Force Members

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Task Force Meetings

February 25–26, 2005 in Reston, Virginia
June 6–8, 2005 in Seattle, Washington

The Board of Directors formed the Family Outreach Task Force to make recommendations to the Council, in part to enhance the outreach to families of PreK-College students. This report reflects the task force's ideas for the Council. The Family Outreach Task Force was charged by the Board to:

- Make recommendations to the Board regarding how NCTM can become a significant resource to families and caregivers of students regarding their students' mathematics education;
- Make short-term and long-term recommendations for Council activities that serve families' interests and needs in support of their students' mathematics education; and
- Review the existing Web resources for families on the NCTM Web site, including Figure This! as well as the Families link from the NCTM home page. The task force may make recommendations regarding the Council's Web offerings for families.

The recommendations are reflected as NCTM Family Web site, resources for teachers, resources for administrators, and outreach to external organizations. The recommendations of this report are presented in order of priority and are independent of each other. Due to the fact that the task force was charged with the task of setting short-term and long-term recommendations, these recommendations were determined based on the following. High priorities are defined as short term and the low priorities are defined

as long term. Engaging in high-priority recommended activities will assist the Council to act on an immediate need to reach out to families in the area of mathematics.

NCTM's Family Web site

Recommendation

1. Develop and incorporate new content into the NCTM Family Web site and enhance the current site.

Rationale: Teachers are looking for resources and information to share with families, and NCTM has information of value to this audience and could create additional information and links that would meet teachers' and families' needs. The recommendation is to include the following information:

1. Downloadable PDFs of the Family Brochures (See Recommendation 3)
2. Links to a collection of President's Messages
3. Families Ask articles from *Mathematics Teaching in the Middle School*
4. Title I section with suggestions for using Title I money for outreach to families and NCTM professional development options.
5. Talking points and sample items from Trends in International Mathematics and Science Study (TIMSS), National Assessment of Educational Progress (NAEP), and Programme for International Student Assessment (PISA). Also include links to these reports.
6. Links to state departments of education for their standards
7. Links to recommended resources from the NCTM Catalog and Illuminations
8. Links to additional resources to include FAMILY MATH and EQUALS, the Education Trust, Math Forum, Math and Parent Partnerships in the Southwest (MAPPS), and Department of Education materials on "Helping Your Child Learn Mathematics."

Recommendation

2. Convene a group of mathematics educators to use math activities from NCTM journals or develop two or three summer math activities for grades Pre-K through 8 (grade-bands PK-2, 3-5, 6-8) using appropriate family-friendly language in the format of a math calendar for summer months.

Rationale: Parents are continually seeking activities for their children who are not attending school during the summer months.

Resources for Teachers

Recommendation

3. Expand informational materials on Figure This! for all grade levels. Develop an additional 28 (5 already developed on Figure This!) printed brochures that answer questions families have regarding math and their child. Materials should be available in English and Spanish.

Rationale: Materials developed for families must be written specifically for this audience. These brochures would include a glossary of terms to help families understand education terminology (see Education Trust, glossary of terms). These brochures, produced in English and Spanish, would each answer one question that a family would ask (for example, “Why doesn’t the math my child brings home look like the math I remember?” And the answers would be created for elementary, middle, and high school audiences). The brochures would be available to read on the Web site and download from the NCTM Family Web page (see Recommendation 1), and the printed copies would be available for purchase in bundles. The topics for each of these brochures are attached in Appendix A.

Recommendation

4. Convene a group of three or four mathematics educators to look at the development of some of the recommended brochure items for appropriateness and family-friendly language.

Rationale: Given the expertise of NCTM staff and their other responsibilities, this group of educators could provide and review content to expedite delivery of family materials.

Recommendation

5. Encourage teachers to use the letters to families that are provided by textbook publishers and that communicate directly with those in the home about the mathematics being studied in the classroom.

Rationale: Families are very interested in what happens in their classroom. Ongoing communication with families provides an opportunity to involve families in their child’s learning and can provide direction as to what families can do to help.

The following suggestions can be included on the Web site so that teachers can add to a publisher-provided letter or create their own letter in the following ways:

1. Add a photograph of your students working together on a mathematical task or a picture of a math project and its student team creators.
2. Discuss the concept being taught rather than name the concept being taught (for example, “Your child is learning that division is centered on the idea of taking an amount or quantity and grouping or sharing that amount” rather than “We are learning long division”)
3. Provide some questions that families can ask students about their current learning (for example, “What does it mean to share or group a quantity?”)
4. Include a piece of student work from a student in the class (with the name deleted or permission to use it obtained from the student/parent/guardian) that shows families the quality of student work expected or being achieved.
5. Include a section on new vocabulary being learned and used.
6. Include a section on “How you can help at home,” giving families tips on supporting students with learning and homework, attitudes, perseverance, etc.

7. Include a released or sample standardized test item or task that helps families understand the depth, complexity, and rigor that are demanded of students in today's world and by today's tests.
8. Include a math activity, game, or lesson that can be carried out in the home.

Resources for Administrators

Recommendation

6. Appoint a task force or committee to develop a quarterly or monthly newsletter for elementary and middle school administrators to which administrators could subscribe to be shared with families regarding math.

Rationale: Sections may include math and reading connections and math activities at home. The newsletter would be sent as a PDF file to administrators and both members and non-members through subscription. The school can then opt to distribute the newsletter by print, e-mail it to families, or make it available for download on the school Web site. This resource could also be made available to Head Start or Even Start programs. School administrators may not be math oriented, or may not have time or be capable of creating their own quality mathematics newsletter for distribution to families. The literacy community dominates the market of currently available monthly newsletter subscriptions to principals. (For example, Parent Institute offers such a newsletter, with a literacy focus, at a cost of \$200 for 9 issues, plus bonus material.) There is a void in this medium for mathematics material. Such a newsletter can fill this void, provide quality, NCTM-oriented information, appropriate activities, and support. No other math organization can provide this quality of content and service. Title I schools are required to reach out to parents, and this can serve to meet that requirement.

Recommendation

7. Develop a for-subscription portal on the NCTM Web site that allows a teacher or administrator to build a customized newsletter to send home to parents.

Rationale: Given the template, schools can choose from a variety of components in the database to build their own newsletter. The necessary components for activating this portal are:

1. A newsletter template
2. Grade-band appropriate games
3. Grade-band appropriate activities
4. Grade-band appropriate lessons
5. Grade-band sample student work
6. Grade level or grade band sample assessments
7. Frequently asked questions and their answers (source of answers could be NCTM parent brochures, Family Guide, NCTM position statements, etc.)

The increased flexibility of selecting customized content for the needs of the school would be a valuable resource for administrators. School administrators may not be math oriented, or they may not have the time or be capable of creating their own quality

mathematics newsletter for distribution to families. The literacy community dominates the currently available monthly newsletter subscriptions to principals. (For example, Parent Institute offers such a newsletter, with a literacy focus, for \$200 for 9 issues, plus bonus material.) There is a void in this medium for quality mathematics materials. Such a newsletter can fill this void, provide quality, NCTM-oriented information, appropriate activities, and support. No other math organization can provide this quality of service and content. Title I schools are required to reach out to parents, and this can serve to meet that requirement.

Outreach to External Organizations

Recommendation

8. Presentations about the family outreach materials should be scheduled at NCTM annual and regional conferences, and NCTM Affiliates should be encouraged to schedule similar presentations.

Rationale: NCTM members should be apprised of the additional services that NCTM is providing to teachers and the families of their students. Information about the products created by this project should be disseminated to NCTM members and Affiliates via publications and the Web site.

The following recommendations are long term and lower priority.

Recommendation: Develop a PowerPoint presentation that teachers can use for Back to School nights.

Rationale: Teachers need material to present during family nights at school. The material from the PowerPoint presentation on the Standards outreach CD could be reformatted and redesigned, and the terminology could be made more family friendly. This revision could be made available on NCTM's Members Only site for members to download.

Recommendation: Create a CD compilation of the Family Outreach PowerPoint presentation and the completed brochures for sale.

Rationale: Many teachers prefer to have their resources and material on a CD. This way the material can be obtained without an Internet connection and then distributed and showcased as material available for outreach to families.

Recommendation: Develop a Sharing Math with Families planner, a guide with "how to" tips and resources to support schools as they reach families with materials consistent with *Principles and Standards for School Mathematics* and including materials developed by the Family Outreach Task Force.

Rationale: In addition to content brochures, local groups may benefit from coaching on how to plan and conduct family gatherings that disseminate information that is available

through NCTM. This would include information on the value of sharing math with families as well as pointers on planning, effective volunteer recruitment, publicity and promotion, and templates for documents such as sign-in and evaluation forms. This will equip schools with tools to help them more easily begin work in their communities.

Recommendation: NCTM should submit speaker proposals to present sessions at conferences of organizations interested in mathematics education, including the Association for Supervision and Curriculum Development (ASCD), National Council of Supervisors of Mathematics (NCSM), National Parent Teacher Association (PTA), National Association for Bilingual Education (NABE), Title I, National Alliance of Black School Educators (NABSE), and Association of State Supervisors of Mathematics (ASSM).

Rationale: Providing outreach to organizations beyond math-focused organizations.

Recommendation: Press releases should be sent to external organizations that have direct and indirect outreach to families. These press releases can be made available on the NCTM Web site and then faxed to other math and non-math organizations.

Rationale: NCTM could reach other organizations to announce materials and resources available, as well as share information on involving families. NCTM's visibility will be enhanced with other interested groups by advising them of our actions to create and provide materials for families. The following list was generated as suggestions for external outreach: Title I, Gear Up, 21st Century, the Education Trust, National School Board Association, Council of the Great City Schools, PTA, Special Education, Gifted Education, National Association of Elementary School Principals (NAESP), National Association of Secondary School Principals (NASSP), ASCD, NCSM, ASSM, American Mathematical Association of Two-Year Colleges (AMATYC), NCTM Affiliates, and NCTM members.

Recommendation: Develop and disseminate articles and activities for the kids section of local newspapers.

Rationale: The brochures from Recommendation 1 could supply many months of content. The idea would be to give ideas and suggestions in one of our brochures, encourage people to talk to the math teachers in their local schools, and encourage them to contact NCTM for more information, thus giving our organization the visibility we desire.

Appendix A

Topics for Brochures

Brochures 1–3 for grades Pre-K, elementary, and middle school

Our family likes to read. Are there any good books that make math part of the story?

Brochures 4–6 for grades Pre-K, elementary, and middle school

Our family likes to play games. Are there any good games that help with math?

Brochure 7 for grades Pre-K

My child can count to 10. What else can I do to prepare my child for math at school?

Brochures 8–9 for grades elementary and middle school

My child loves math and is very good at it. Where can I find more math?

Brochures 10–12 for grades elementary, middle school, and high school

Why doesn't the math my child brings home look like the math I remember?

Brochures 13–15 for grades elementary, middle school, and high school

How can I work with our school to make sure my child gets the most out of math?

Brochures 16–18 for grades elementary, middle school, and high school

Math homework is due tomorrow, how can I help?

Brochures 19–21 for grades elementary, middle school, and high school

What can I do to help my child get the most out of math?

Brochures 22–24 for grades elementary, middle school, and high school

What can I do to help my child get the most out of math?

Brochures 25–26 for middle school and high school

What if I don't know enough to help my child with math homework anymore? What can I do?

Brochure 27 for high school

What math should my child take to prepare for college?

Brochure 28 for high school

What math should my child take to prepare for math-related careers?

Brochure 29 for high school

Everything you'd want to know about standardized tests

Brochure 30 for College

Roads to Success—study groups and other advice

Brochure 31

A parent's guide to math standards

Brochure 32

What should I look for in a math classroom?

Brochure 33

A summary of tips: What Families Can Do