

Partnering with Families to Improve Students' Math Skills (K-5)

Years of research have shown that partnerships between schools, families and communities contribute to improved student achievement and higher performance for schools (Henderson & Mapp, 2002).

When it comes to math, partnering with families and communities can be an effective way to improve the math skills of students. In particular, when parents engage in discussions with their children about math and have positive attitudes about their children's abilities to succeed in math, their children's performance increases. Few programs exist, however, that seek to engage families and communities to improve students' math skills (Sheldon & Epstein, 2006). Creative strategies should be employed to effectively engage families and communities to support improving math skills for students.

Sample Action Steps

Universal Strategies (For all students and families)

- Invite families to the school to observe how math skills are taught in the classroom.
- Provide families between report cards with information about how their child is performing in math.
- Include articles on interesting math topics in school and class newsletters.
- During school events, give out math-related prizes, such as books or flash cards that help families build children's math skills at home.
- Have books available in the library which can be checked out by students and families to help students with math at home.
- Provide families and students with activities and worksheets to continue to work on math through the summer.
- Assign interactive math homework which requires students to show and discuss with family members how to complete a math problem.
- Assign math homework that requires parent signatures.
- Host fun math nights that require students and families to solve math problems together.
- Provide materials and host workshops that teach families how to work at home to help their child prepare for achievement tests.
- Provide material and host workshops that help families to understand academic content standards and math-related benchmarks appropriate to their child's age.
- Use family and community members as math aides in the classroom.
- Invite family and community members to the school to discuss how math is important in their careers.
- Involve family and community members as partners in planning math-related activities for students.
- Model positive attitudes about math and creative ways to think about math when meeting with family members.
- Reach out to community organizations such as universities, businesses, parks, zoos or sports teams to create cooperative programs and field trips that focus on building math skills.

Targeted/Intensive Strategies (For students who may need extra help with building math skills)

- Use family and community members as math mentors for students who need extra help.
- Refer families of students to after-school programs and community resources which focus on math, if needed.
- When meeting with family members regarding a student's difficulty with math, ask them how the student learns best (visually, by writing things down, etc.).
- Develop cooperative relationships with supplemental educational service providers.

Resources

Helping your Child Learn Mathematics

This booklet includes activities parents can use with children from preschool through fifth grade to strengthen their math skills and build positive attitudes about math. An electronic version of the booklet is also available from the U.S. Department of Education by clicking [here](#).

<http://www.ed.gov/parents/academic/help/math/index.html>

Teachers Involve Parents in Schoolwork (TIPS) Interactive Homework

TIPS Interactive Homework is a research-based approach to increase family involvement in student education. This approach helps teachers develop homework that requires students to interact with family members in subjects such as math, science and language arts. More information about TIPS Interactive Homework is available by clicking [here](#). <http://www.csos.jhu.edu/P2000/tips/subject.htm>

Parent Academy- Academic Content Standards

Parent Academies are free two-hour workshops for parents on topics that will help them support their child's learning and development. School districts, parent organizations and community groups can schedule trained facilitators through the Ohio Department of Education to conduct workshops that meet district and parent needs. For more information, click [here](#) and search keywords: *Parent Academy*. <http://education.ohio.gov>

Not Just Numbers: Creating a Partnership Climate to Improve Students' Math Proficiency

This article, written by Steven Sheldon and Joyce Epstein, reviews the strategies schools have used to engage families and communities to improve student math achievement. It also discusses the impact these efforts have had on achievement. To view the article, click [here](#).

http://www.allacademic.com/meta/p_mla_apa_research_citation/1/0/4/7/1/pages104710/p104710-1.php

Web sites

Ohio Department of Education, *Getting Involved in your Child's Learning* – Click here and search keywords: *Getting Involved*. <http://education.ohio.gov>

U.S. Department of Education, *Early Math: What is Mathematics?* (link to this site <http://www.ed.gov/pubs/EarlyMath/whatis.html>)

Illuminations, Resources for Teaching Math – (link to this site <http://illuminations.nctm.org/WebLinks.aspx>)

Evidence-Based Programs

Click [here](#) to link to evidence-based programs that include family involvement strategies in mathematics.

Sources

Sheldon, S. B. and Epstein, J. L., (2006). *Not Just Numbers: Creating a Partnership Climate to Improve Students' Math Proficiency* paper presented at the annual meeting of the American Sociological Association, Montreal Convention Center, Montreal, Quebec, Canada Online retrieved 2009-03-05 from http://www.allacademic.com/meta/p104710_index.html. Henderson, A. & Mapp, K. (2002). *A New Wave of Evidence: The Impact of School, Family and Community Connections on Student Achievement*. Austin, TX: Southwest Educational Development Laboratory.

Epstein, J., Sanders, M., Simon, B., Clark Salinas, K., Rodriguez Jansorn, N. & Van Voorhis F. (2002). *School, Family, and Community Partnerships: Your Handbook for Action*. Thousand Oaks, CA: Corwin Press, Inc.