Making Math Real for Students
by Kathryn Brown

Mathematics is amazing. Seeing a student’s eyes focus on an internalized visualization map of mathematical concepts that are being unearthed and connected as she is detailing her intricate, mathematical thoughts is a breakthrough experience.

Having this experience yourself goes beyond the step-by-step kind of success one often comes across in carrying out the steps of solving an equation. That set of steps to solving the equation is just one of the pieces to this awesome mathematical experience. Others involve making connections to other ideas and seeing value in the reasoning and solutions to your own.

If you never had the opportunity to have this feeling in math class as a student, recall when you tackled a problem as an adult using your reasoning skills in your work or home and were able to find and implement solutions. Think of the journey you took to get to that point: drawing from other problems you may have solved of this nature, communicating with others to get their feedback or input, or maybe sketching out a map in your mind or on paper that helped you reason out your thoughts that spiraled you to an “aha” moment.

This feeling of accomplishment and success is what IDRA envisions for all students to experience in mathematics, throughout their lives.

Not surprisingly, many people do not have pleasant memories of math class. In survey after survey, adults note that mathematics was their least favorite subject in school. In a world where job opportunities are increasing three times faster for those that involve mathematics and computer science as compared to jobs that do not, we must break down barriers and create opportunities for access and success for all students in mathematics. Their future depends on it, and so does ours.

How do we accomplish this? How do we ensure that students enter college without having to take remedial math courses before they are prepared for the ones that give them real credits toward their degree? How can we exponentially increase the number of students, especially minority and female students, who enroll in higher-level mathematics courses?

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and who have been traditionally left out? How can we engage students and use tools from their world to explore mathematics in meaningful ways? How can we, together, move beyond what has always been a challenge for this nation: teaching and learning mathematics? Most importantly, how do we help students feel successful, eagerly challenged and feeling those “butterflies in their stomach” that you get when you are energized about learning something that inspires you to search and forge ahead in the quest for knowledge?

IDRA believes that we, as teachers, parents, administrators and community members, should provide the means so that the focus of instruction and opportunities for learning are in place so that all students are mathematically proficient. IDRA is finding solutions to these questions through its work with several school districts in its MathSmart! secondary mathematics program (see Page 8).

Mathematical Proficiency

First, let us explore this question: What does it mean to be mathematically proficient? Is it being able to easily do mental math, create and solve equations from situations, or even memorize formulas? Merriam-Webster Online defines proficiency as being “well advanced in an art, occupation or branch of knowledge.” What we are saying is that all students need to be on the road to mathematical proficiency beginning in pre-kindergarten.

What is an area that you are proficient in? Think about the process involved in reaching that level of proficiency. It is complex and rich and takes time to develop.

The Committee on Mathematics Learning was established by the National Research Council in 1998. In its report, Helping Children Learn Mathematics, the committee chose the term “mathematical proficiency” to capture what it means to learn mathematics successfully (NRC, 1998). Mathematical proficiency has five strands:

- **Conceptual understanding** – understanding mathematical ideas and making connections to previously learned math concepts;
- **Procedural fluency** – carrying out effectively and efficiently procedures, such as addition, subtraction, division, when solving problems, not limited to written but including mental and hands-on strategies;
- **Strategic competence** – being able to formulate, represent and solve math problems (often referred to as problem solving) using various tools.

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**IDRA’s Math Smart!**

The Intercultural Development Research Association (IDRA) is a non-profit organization with a 501(c)(3) tax exempt status. The purpose of the organization is to disseminate information concerning equality of educational opportunity.

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A parent in the La Milpas Colonia of Pharr, Texas, is sitting at a computer, surrounded by other parents and young people, creating an e-mail to send to the principal of her son’s school. She is requesting information about the next site-based decision-making committee. This is the first time she has used her new e-mail address.

She is in a community center, with clusters of students, ages 10 through 20, sitting with their parents and other adults exploring the Internet. The teams are searching for information on local colleges, their schools and e-mail addresses of their school principals.

What Led to this Moment?

In the summer of 2004, students joined families to help the adults begin to use computers, explore the Internet and find educational information online. As part of an ongoing parent leadership series in education conducted through the Texas IDRA Parent Information and Resource Center, a new library with a large cluster of state-of-the-art computers was the scene for the workshop. IDRA provided technical assistance and training.

Students were paired with adults and conducted a series of online searches. The adults first selected a theme, topic or question to be researched online with the students guiding them. Families visited web sites about communities where crops were picked in the summers. One woman found several web sites with pictures of dolphins. Another found information on available real estate in her community. A student took his mother to the community college web site. And another visited the web site of a province in Spain.

Each team visited school information web sites. They identified whether their children’s schools had web sites. Some were able to view pictures of the administrators and school board members. They also found actual student data about their campuses.

That afternoon, some students made PowerPoint presentations on what they had learned. One student guided the group through an online search of local colleges and highlighted specific information on financial aid available at the largest public university in the area.

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Organizing the Youth Education Tekies

Following this very successful inter-generational session, the participating students decided to form a group to support the ongoing technology connections for their families. Few had computers at home, and even fewer had Internet connections. All of the students involved had ample technology skills and access to computers in school but were not active users of their e-mail addresses because of the lack of access to computers outside of school.

In most cases, they also were the translators for their parents and other adults. Historically, in the large migrant stream from south Texas to the many seasonal farm work sites in all parts of the United States, families have had a great dependence on school-age children to be the linguistic go-betweens for families that are Spanish proficient.

With a commitment from IDRA to support their efforts, 15 students gathered on a Saturday and formed a group. After extensive discussion, they agreed upon their vision and goals:

- Help parents to be strong defenders of an excellent education for all children.
- Provide the leadership of youth through technology.
- Be technology bridges for families and strengthen family connections.
- Develop personally through the use of technology.

They asked ARISE, a grassroots organization in the lower Rio Grande Valley, to be their sponsor and organized themselves under the title of Youth Education Tekies. ARISE is a collaboration of five separately incorporated non-profit organizations each dedicated to building community so that families feel strong from within. It was founded in 1987 by Sister Gerrie Naughton, RSM, and has been co-sponsored by three religious congregations. ARISE focuses on community development programs for persons who are immigrants to the United States, primarily from Mexico. Ramona Casas is the lead organizer.

The PIRC has continued to provide support and integrates monthly meetings that bring students and parents together around educational issues. The PIRC also has conducted leadership retreats for the youth.

Achievements

The Youth Education Tekies have had many successes. They hold monthly meetings and provide continued assistance for adults on the use of computers. Students do classwork while young siblings play math games online. The community center has a cluster of donated computers and has upgraded from dial-up to a high-speed broadband connection. The center is an added barrio technology resource. The city public library is five miles away and has a constant waiting list for computer use, so this center is a good alternative. Following are more successes the Tekies have achieved:

- Several students presented at a public hearing on the No Child Left Behind Act.
- They co-planned and helped carry out a welcome for the newly appointed Latina president of the largest public university in the area. In preparation for this event, the students and parents studied the structure and offerings of the university online.
- Students who have been the language bridge for families that speak a language other than English are now also the connection to technology.
- Several of the Youth Education Tekies are officially on the PIRC advisory board.
- Most recently, the Youth Education Tekies participated in a conversation about dropout prevention. And a co-founder and representative of the group addressed a major conference Graduation Guaranteed/Graduación Garantizada – Statewide Summit on School Holding Power, sponsored by IDRA and League of United Latin American Citizens. Alejandra “Maggie” Teran, a 10th grader, presented the views of the group on what schools need to do to increase their holding power. She received her first standing ovation.

Research

The research on the connections between proficiency in technology use and academic achievement keeps getting stronger. But the technology gap between Latino families and middle-class English-speaking homes continues to be a large chasm.

A cursory review of available research and best practices using technology for education and community engagement yields little in terms of efforts described here. Instead, there is information on how to “engage” people to get them to learn about certain issues and to act one
Detroit is the latest site that has launched the highly-successful Coca-Cola Valued Youth Program. Educators, including William Coleman III, chief executive officer of Detroit Public Schools, gathered for a community leaders breakfast and tutoring demonstration in December at the participating schools.

The State of Michigan calculates a 44 percent graduation rate in Detroit. The Harvard Civil Right Project reports that nationally, only 68 percent of students graduate on time with a diploma.

“The reason we as a nation have failed to reduce dropout rates is that we have been blaming the students – claiming that their soul, their mind, their heart, or their community environment is unhealthy – rather than tending to what grown-ups and schools should be doing to keep children in school,” said María “Cuca” Robledo Montecel, Ph.D., executive director of the Intercultural Development Research Association, which developed and implements the Coca-Cola Valued Youth Program.

“The Coca-Cola Valued Youth Program is successful because it demonstrates to students the value of their own education and of the contributions they can make in the lives of others. The students feel needed and important. They know others rely on them as role models. The young students really do see our tutors as heroes,” said Dr. Robledo Montecel.

According to the Coca-Cola Valued Youth creed, “All students are valuable, none is expendable.” This philosophy is helping schools across the United States and Brazil lower the dropout rate. In the program, the dropout rates are averaging less than 2 percent, keeping 98 percent of young people in the classroom and learning. The program currently spans five states in the United States and 14 cities in Brazil, and throughout its 21 year history has positively impacted the lives of more than 416,000 children, families and educators, keeping more than 23,000 students in school.

“My involvement in the Coca-Cola Valued Youth Program has made me a better person,” said Miguel, a 10th grade student and Coca-Cola Valued Youth tutor in Detroit.

Crystal, an 11th grader who also tutors there said, “The younger kids look forward to seeing me, and I feel compelled to be there.”

IDRA Coca-Cola Valued Youth Program – Principles

1. All students can learn.
2. The school values all students.
3. All students can actively contribute to their own education and to the education of others.
4. All students, parents and teachers have the right to participate fully in creating and maintaining excellent schools.
5. Excellence in schools contributes to individual and collective economic growth, stability and advancement.
6. Commitment to educational excellence is created by including students, parents and teachers in setting goals, making decisions, monitoring progress and evaluating outcomes.
7. Students, parents and teachers must be provided extensive, consistent support in ways that allow students to learn, teachers to teach and parents to be involved.

For more information on the Coca-Cola Valued Youth Program, contact IDRA by phone at 510-444-1710, by e-mail at contact@idra.org or visit our web site at www.idra.org.
Engaging Students for Success

Studies have shown that greater student engagement increases academic achievement and encourages students’ positive self-concept, to the point of reducing dropout rates (Brookhart and Durkin, 2003; Finn and Voelkl, 1993). Engaged students perform better academically. Whether engagement is used in the context of students being captivated during lessons by powerful learning opportunities or of engaging students in the larger arena of activism, engagement is a vital part of academic success for students.

A Snapshot of What IDRA is Doing

Developing Leaders – The Annual IDRA La Semana del Niño Early Childhood Educators Institute fosters leadership not only in early childhood educators generally, but also in those educators whose students are bilingual. The workshops and dialogues during the institute help educators to create classrooms that are both accessible and culturally relevant. This institute also engages parents as their children’s first teachers, showing them ways to engage their children in home and school. See Pages 10 and 11.

Conducting Research – Research and evaluation are an integral part of IDRA’s Coca-Cola Valued Youth Program. One of the reasons the program is so successful in keeping students in school and learning is the empowerment they feel in teaching younger students – there is another person who knows when the tutor is gone and who misses them. Through the pre- and post-testing done with all tutors in the Coca-Cola Valued Youth Program, it is obvious that these students feel valued, and therefore empowered, in a way they never felt before (see Page 5 and the article in the October 2004 issue of the IDRA Newsletter). The Coca-Cola Valued Youth Program has been engaging students for 21 years and has positively impacted 416,000 students, educators and families.

Informing Policy – IDRA’s South Central Collaborative for Equity, works to influence district policy to create classrooms that are safe and comfortable for all students. The center is the equity assistance center serving federal region VI (Arkansas, Louisiana, New Mexico, Oklahoma and Texas). It is working with several school districts to get them back into compliance with federal mandates around equity for all children regardless of race, gender or national origin.

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strategies;

• Adaptive reasoning – reflecting on, justifying and explaining mathematical ideas; being able to think logically and reason; and

• Productive disposition – seeing oneself as a successful learner of mathematics and its application to one’s own life situations.

These five dimensions of mathematical proficiency work together. Think of them as a rope that is comprised of five strands. One is not more important than the other, and they work in conjunction with one another.

You can also think of these strands as five musicians in a band. Each one plays its part in creating the music. Imagine Barry White’s “Can’t Get Enough of Your Love” without his deep melodic voice. There would be something missing; something inside of you guiding the ear to search for the essential sound of his voice. Barry White’s voice takes the song to another level, one of feeling and containing soul.

Such is the case with these five dimensions: having a productive disposition is a key element that makes possible the other four dimensions.

Math in the Real World

The committee’s report states: “The teacher of mathematics plays a critical role in encouraging students to maintain positive attitudes toward mathematics. How a teacher views mathematics and its learning affects the teacher’s teaching practice, which ultimately affects not only what the students learn but how they view themselves as mathematics learners” (NRC, 1998).

Having a productive disposition is essential to building any of the other strands, such as adaptive reasoning. If I value the mathematics I am learning and see how it connects to my world,
Engaging Communities – IDRA convened three Blueprint Dialogue roundtables across Texas that were highly successful in extending community and school leader interaction to urban and rural communities through a cross-sector and multiracial approach that focused on Latino and African American youth, preschool through graduation. Supported by the Annie E. Casey Foundation, the dialogues were action-focused and challenged leaders to plan specific strategies that would improve educational opportunities for all students, especially minority students. See http://www.idra.org/mendezbrown for more information.

What You Can Do

Get informed. Visit the National Survey of Student Engagement to see how college and university students are ranking their institutions on engagement. You can see the full report at http://nsse.iub.edu/index.cfm.

Find out more. Which system factors may be weakening school holding power? Is funding appropriate and equitably distributed to offer an excellent education to every student in your district? Are teachers certified and teaching in their area of expertise? What are your district’s student retention policies and practices? What is the quality and accessibility of the curriculum? Is schoolwork comprehensible to all students, no matter what first language they speak? Are students engaged in learning and academic life – do they sense that they are valued and expected to succeed? If not, what must be changed? See IDRA’s Quality Schools Action Framework to see how these elements work together, http://www.idra.org/attrition/framework.htm.

Get results. Use the tool, Promoting Student Leadership on Campus: A Guide for Creating a Culture of Engagement, to build a vision of engagement and student leadership on your campus. You can find the IDRA publication at http://www.idra.org/Resource/Resource.htm#leadership. It is available for free download online.

Also, student engagement is strengthened when students’ families are engaged with their schools. You can work with your school to create involvement strategies that are meaningful to families. See “Improving Educational Impact through Community and Family Engagement,” by R.G. Rodriguez and A. Villarreal for suggestions, http://www.idra.org/Newsltr/2002/Nov/Rosana.htm#Art1.

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I will have the confidence and the means by which I can think logically and communicate with my peers my own mathematical reasoning.

Students long for this type of a connection where math meets their real world. So many times we hear students asking “When will I ever use this?” in mathematics classrooms across the nation and across grade levels. So many times teachers and parents respond: “When you become an engineer” or “When you become a carpenter.” Students want to know how they are going to use it today.

IDRA’s Parent Information and Resource Center works in partnership with ARISE, a women-led, faith-based organization based out of six colonias in the lower Rio Grande Valley in Texas committed to local leadership and delivery of social services. Through this partnership, one focus has been to build student leadership where students are the bridge for connecting their parents and community to technology – an engaging effort in breaking down the digital divide. This is done through the ARISE centers that are equipped with a shared cable connection and computers that provide students and their parents access to information about their community, schools and world (see article on Page 3).

When students and parents were analyzing school data on the Texas Education Agency web site and exploring why their school was listed as not meeting Adequate Yearly Progress (AYP) standards, one of the ninth-grade girls said that they were doing similar work in her math class, however, they were using “fake” data that did not really pertain to them. She wished that her teacher would have taken them to the TEA web site to look at data about their own school so that the students could analyze that data and make some calculations that enable them to make “real recommendations” for improving

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In supporting equal access to challenging mathematical content, it is critical to implement instructional practices shown to be effective with linguistically diverse and economically disadvantaged students. Traditional secondary level practices simply are not enough in the instruction of heterogeneous populations.

To maximize mathematical proficiencies and impact student achievement, instructional and administrative staff must be prepared to address different needs in an age of increasing expectations and mandatory accountability for diverse students. It is no longer enough for students to simply “do well” on state-mandated exams. It is necessary to increase the understanding, complexities and applications of mathematical thinking and processes across all math courses in order to satisfy state and federal mandates and prepare our students for an ever competitive job market.

To address these issues, IDRA’s Math Smart! presents a shift in mathematical thinking for instructors, that develops the Five Dimensions of Mathematics using scientifically-based research strategies.

**Math Smart! Objectives**

- **Strengthen the belief** that all students can increase their achievement in state-mandated exams and that students’ understanding of mathematics can be deepened to levels of increasing complexity.

- **Value students’ experiences** as a basis for strengthening their mathematics competency.

- Take advantage of a **safe environment to explore mathematical concepts** in new ways and to support peer collegiality among math teachers who are experiencing success.

- Move from a traditional math instruction approach to a broader paradigm that makes it possible to say that all students really can learn mathematics.

**Math Smart! Will Address Your Specific Needs**

Cross-cutting themes that are incorporated into each training session include:

- “Helping Second Language Learners Excel in Math”
- “Kicking the Door Open: Increasing Student Enrollment and Achievement in Higher Level Mathematics”
- “Directing Instruction to Guide and Empower Student Mathematical Thinking”
- “Creating a Hands-On, Problem-Solving Environment to Energize Student Learning in Mathematics”
- “Propelling Student Thinking in Math Using Technology”
- “Engaging Parents to Ensure Student Success in Math”

**Math Smart! Support**

Math Smart! training uses a variety of ways to work with school staff who can include workshop training, video conferences, demonstration lessons, pre-classroom observations, project listserv web casting, online discussions and reflections. The Intercultural Development Research Association provides the following support for face-to-face and online coaching and mentoring sessions:

- Implementing the five dimensions of mathematical proficiency in a standards-based curriculum,
- Using cognitively guided instruction: Questioning techniques, teacher strategies, and building the classroom environment,
- Ongoing assessments of instructional efforts,
- Differentiating instruction in the mathematics classroom,
- Developing literacy skills (writing, reading, and building language in mathematics),
- Implementing cognitively challenging TAKS/TEKS aligned strategies for student success in math, and
- Supporting teachers through mentoring and coaching strategies.

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their own school and what students and teachers need.

This is an example of teachers creating an environment that nurtures a productive disposition and makes mathematics meaningful where students have a context for weaving the concepts of mean, median and mode (conceptual understanding); have a practical reason for calculating them (procedural fluency); and formulate strategies and share with one another solutions to questions like, “Which measure of central tendency best represents our school and why?”

People gasp when they hear, “How horrible! He graduated from high school and he could not even read.” Would the same hold true if we said, “How horrible, he graduated from high school and he could not even do algebra”? The gasps do not come. But they should.

Yet, in this era of punitive, high-stakes assessments, where meaningful, student-oriented teaching is sacrificed to test preparation, it is no surprise that schools emphasize one dimensional, prescription curricula that ensure mathematical mediocrity rather than proficiency. It is up to us as educators to ensure that every student is given every opportunity and that systems that value all students as mathematical learners are set in motion so that every student graduates from high school mathematically proficient.

Resources

Kathryn Brown is the technology coordinator in the IDRA Division of Professional Development. Comments or questions may be directed to her via e-mail.

### Highlights of Recent IDRA Activities

In January, IDRA worked with 3,071 teachers, administrators, parents, and higher education personnel through 53 training and technical assistance activities and 134 program sites in 11 states plus Brazil. Topics included:

- Thematic Planning for Early Childhood Teachers
- Math Smart!
- Demonstration Lessons on Technology for High School Students
- Bilingual Education and Fair Funding for Schools
- Embracing ELL Strategies to Create Success

Participating agencies and school districts included:
- Broward County School District, Florida
- Detroit Public Schools, Michigan
- Mesa Public Schools, Arizona

#### Activity Snapshot

Under the direction of the federal court to desegregate schools and programs within them, three school districts in Arkansas sought to create an equity-monitoring form. The court also mandated the formation of bi-racial teams in the three districts to include four parents and two teachers from each of the campuses. The IDRA South Central Collaborative for Equity worked with the school districts to create the monitoring form to measure the quality of desegregation on every campus. It trained the teams to use the instrument, to conduct equity monitoring and to create an appropriate report of findings. The state department of education adopted the equity monitoring form and process, which were implemented by all districts to monitor the assignment and placement of students in classes, programs and extracurricular activities. The SCCE is the equity assistance center that serves Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

Regularly, IDRA staff provides services to:
- public school teachers
- parents
- administrators
- other decision makers in public education

Services include:
- training and technical assistance
- evaluation
- serving as expert witnesses in policy settings and court cases
- publishing research and professional papers, books, videos and curricula

For information on IDRA services for your school district or other group, contact IDRA at 210-444-1710.
Check Out These Sessions!

**Motivating Reading and Writing with Children’s Literature***
When teachers use children’s literature to read aloud, children are exposed to more than just a simple reading of the book. A critical piece of children’s social, emotional and intellectual development is daily read-alouds. In this session, teachers will explore ways to use children’s literature to encourage students to read and write.

**Technology and Play**
This session explores the use of technology to develop literacy skills. Computers enable children to build knowledge in social and independent literacy settings. Participants will explore the various software products available for every type of literacy skill: phonemic awareness, phonics, comprehension, writing and vocabulary.

**Professional Practice, Methods and Curriculum**
This session explores the developmental approach to teaching and its application in the classroom for school readiness. Participants will learn how to plan and develop activities for children and families in an early childhood education environment.

**Family Literacy: Why Is It Important?***
Parents are children’s first teachers. This session will focus on why it is important for families to be involved in

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13th Annual IDRA
La Semana del Niño
Early Childhood Educators Institute™

This is the nation’s only gathering place for teachers and parents concerned with early childhood education of English language learners. Sign up today to explore research-based, effective practices that lead to children’s success. Attend workshops about creating centers of excellence for children to develop a love for reading while they are learning math and science. You will also visit model early childhood centers and share ideas while seeing them in action.

CPE credit will be offered.

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April 25-27, 2006
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For more information visit www.idra.org/Event or call 210-444-1710.

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* session is bilingual, Spanish and English
the education of their children. Participants will receive activities and ideas on creating learning centers in the home.

Reading as a Home Activity*
Research indicates that children who are read to regularly at home become early readers and show interest in reading. This session will explore ways reading can become an everyday activity in the home. Participants will be guided on how to read aloud to children and what kinds of questions to ask them. The verbal interactions between the adult and child during story reading have a major influence on literacy development.

Five Components of Early Literacy*
This session will assist Pre-K-3 teachers in addressing legislative mandates regarding early reading by reviewing the five components of literacy and by acquiring strategies to gain understanding of each component.

Getting Meaning from Experience: The Child and Science
Science provides many opportunities for literacy development. Science experiments offer great opportunities for discussion and development of language. This session will focus on the scientific process and how observing, hypothesizing, recording data, summarizing, analyzing and drawing conclusions need to be a part of every science experience.

Project READ Research Findings
This session will reveal findings of IDRA’s Early Reading First project, Reading Early for Academic Development (READ). Participants will take a close look at the professional development model used to accelerate student literacy development.

Expanding Children’s Concepts of Number, Space and Operations
This session will explore activities that bring meaning to mathematics through topics that include literacy as well.

* session is bilingual, Spanish and English

Parent Leadership Institute, April 27
This interactive, bilingual institute will provide a forum for parents, parent liaisons and educators to discuss the leadership that families can exert in literacy development and their partnerships with schools. Parents who would like to participate for the three days will be able to attend special sessions designed for parents.

School Site Visits
- Visit schools with unique innovative bilingual early childhood programs!
- Find out how they have sustained this level of success!
- Watch teachers in action using best practices!

For schools, education service centers, and universities... sponsor a video conference site for parents.

Video Conference Creating Centers of Learning Excellence
Creando centros de excelencia en el aprendizaje
In this two-hour video conference, parents and parent educators around the state will learn about and discuss learning situations for young children. Participants will share their own insights and experiences with each other. This interactive session will be conducted in English and Spanish.

To register your video conference site or to find a participating location near you, contact Lena Guerra at IDRA, 210-444-1710.
way or another; information on using community engagement strategies to secure technology in schools or in communities; and information on using technology to engage students in the classroom.

In contrast, IDRA’s effort exemplifies using technology as a tool to bring together students and families to access and improve public education in their community.

This project, although limited in scope and number, highlights important funds of knowledge, interest and value in the working-class Latino community in South Texas. Latino family connections are readily available resources to accelerate the schooling and family involvement goals of schools. Activities that strengthen family bonds can further parents’ ability to take leadership in supporting excellent public schools for their children.

Parents are thirsty for knowledge about schools and education and care deeply about their children’s academic success. Latino youth, like most of the school-age children in the United States, are technology proficient and savvy in ways that even schools sometimes ignore. There are huge online resources available in English and Spanish.

Children historically have been natural and willing partners for families to navigate the English-speaking context. And they can be strong connections with school for families as well.

**Challenges**

While this effort has been hugely successful, several needs for similar initiatives are apparent: (1) increasing the availability of technology; (2) providing technology support so that the equipment and the connections are available and working; (3) finding more permanent means of providing training and technical assistance to connect students and families with the educational information available online; and (4) nurturing the collective use of the information for the improvement of all schools.

**Possibilities**

If a small community center in a *colonia*, with limited resources, can be the host of a family-student-school technology communication project, there are great possibilities for the many technology labs that already exist in schools and that are underutilized when school is not in session.

When the starting point is the family, drawing on the assets and funds of knowledge in the community, the e-connections can be positively e-rupting!

**Resources**


Aurelio M. Montemayor, M.Ed., is lead trainer for the IDRA Division of Professional Development. Comments and questions may be directed to him via e-mail at comment@idra.org.