Approaches to Improving Math Education for Students with Disabilities

Amy Brodesky & Josephine Louie

What do in-house math leaders, multiple math support services, and extensive teacher collaboration have in common? According to a recent report issued by the Regional Educational Laboratory – Northeast and Islands (REL-NEI), these are a few of the practices that teachers and administrators said were strengths of their schools’ approaches to improving math teaching and learning for students with disabilities and other struggling learners. The report is a descriptive study of six elementary schools in Massachusetts and New York that were perceived by educators as exemplary in their math education efforts. The study examined: What practices are these schools using to provide math education to students with disabilities and other struggling learners? What do school leaders and teachers identify as their school’s strongest practices and greatest challenges for improving math teaching and learning for these students?

Study Methods
Case-study schools were selected through a multi-step nomination and screening process. Education leaders in Massachusetts and New York were asked to nominate schools they believed were making strong, targeted efforts to improve the math learning of students with disabilities and other struggling learners. The researchers then used screening criteria to select two rural, one suburban, and three urban schools for analysis.

During two-day site visits at each school, researchers observed math lessons in general education, inclusion, and separate special education settings. They interviewed principals, math specialists/coaches, general and special education teachers, paraprofessionals, and other key staff. Primary documents, such as school improvement plans and special education referral forms, were also collected. Researchers examined data for each school and conducted a cross-case analysis to

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Schools and communities around the world celebrated the 8th Annual Inclusive Schools Week this past December on the theme, “Together We Learn Better: Inclusive Schools Benefit All Children.” Since its inception in 2001 under the auspices of the Urban Special Education Leadership Collaborative, Inclusive Schools Week has been celebrated each year during the first week of December, providing an opportunity for families, schools, and communities to raise awareness and recognize progress in promoting inclusive education.

Here are some of the highlights of the 2008 Inclusive Schools Week:

**School and District Celebrations**
Schools and districts around the United States, and internationally, sent descriptions to the Inclusive Schools Network (ISN) of events and activities they had planned in celebration of the 2008 Week. Descriptions of these Celebration Plans, including submissions from Urban Collaborative member districts Clark County, NV, Pittsburgh, PA, and Washoe County, NV, are posted on the ISN website at: [http://www.inclusiveschools.org/Celebration_Plans](http://www.inclusiveschools.org/Celebration_Plans).

**States’ Recognition**
This year, the Week was officially recognized for the first time in Minnesota by a proclamation of Governor Tim Pawlenty. Minnesota joins a number of other states that have recognized the Week over the years, including Michigan, which recognized the Week in 2008 for the fourth consecutive year by a resolution of the State Board of Education. Both the Minnesota Governor’s Proclamation and the Michigan Board of Education’s Resolution can be viewed on the ISN website at: [http://www.inclusiveschools.org/Celebration_Plans](http://www.inclusiveschools.org/Celebration_Plans).

**Inclusive Schools Network Webinar**
On December 3, ISN hosted its first webinar on the topic “Reflecting Upon the NCTM Focal Points and the Role of the Special Educator in Today’s Mathematics Classroom” with Dr. Lisa Dieker, Professor of Exceptional Education at the University of Central Florida, and Dr. Hank Kepner, President of the National Council of Teachers of Mathematics (NCTM). This event was recorded and can be viewed through the ISN website at: [http://www.inclusiveschools.org/Webinar_2008_December](http://www.inclusiveschools.org/Webinar_2008_December).

**Including Samuel Film Screening and Discussion**
ISN sponsored a film screening and discussion on December 1 with filmmaker Dan Habib about his documentary *Including Samuel*. This film examines issues related to inclusive education and honestly portrays the experiences of Habib’s son Samuel, who has cerebral palsy, and four other individuals with disabilities. Video clips of the discussion session and additional information about this film are available on the ISN website at [http://www.inclusiveschools.org/Including_Samuel](http://www.inclusiveschools.org/Including_Samuel).

**“Best Ideas for Inclusive Schools”**
For Inclusive Schools Week, the American Federation of Teachers (AFT) sponsored a contest to highlight effective inclusive educational practices in elementary, middle, and high schools across the United States. Visit the ISN website for more information, or go to [http://www.aft.org/tools4teachers/contest.htm](http://www.aft.org/tools4teachers/contest.htm) to read about the contest winners.

**ISN Discussion Forum**
ISN launched its online forum in conjunction with the 2008 Week, providing a venue for discussion around the theme “Together We Learn Better: Inclusive Schools Benefit All Children.” This forum will be available year-round to facilitate networking and serve as a resource for educators, families, and others interested in inclusive educational practices.

The 2008 Inclusive Schools Week was a great success due to the participation, support, and commitment of schools and organizations all over the U.S. and abroad. And, while the Week is always an excellent time to celebrate the benefits of inclusive educational practices, there are also plenty of other opportunities and ways to raise awareness, share, and improve. So, in addition to sponsoring future years’ Inclusive Schools Week, the ISN will serve as a year-round resource for educators, families, and communities that are working to promote and sustain inclusive educational practices. If you would like to learn more about ISN or the Week, please contact ISN Program Coordinator Tom Beer at tbeer@edc.org or 617-618-2519, or visit [www.inclusiveschools.org](http://www.inclusiveschools.org).

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What Works to Reduce Behavior Problems in the Elementary School Classroom

Michelle Woodbridge, Mary Wagner & Jennifer Yu
SRI International

Since 2007, the U.S. Department of Education’s Institute of Education Sciences (IES) has been publishing a set of practice guides to help bring the best available expertise and evidence to bear on the multifaceted challenges in classrooms and schools (available at http://ies.ed.gov/ncee/wwc/publications/practiceguides/). The practice guides offer specific recommendations for tackling important educational problems and document the level of research evidence supporting each recommendation, as rated by the What Works Clearinghouse (WWC) standards of evidence. (For more information about the WWC research review process, see http://www.whatworks.ed.gov).

A recent IES practice guide, “Reducing Behavior Problems in the Elementary School Classroom,” was developed by a panel of experts who compiled high-quality evidence to formulate five actionable recommendations for educators who work with young children with or at risk for behavior problems at school. This practice guide is intended to help general education elementary school teachers and school- and district-level administrators develop and implement effective prevention and intervention strategies that promote positive behavior and reduce the frequency of the most common types of behavior problems encountered with elementary school children. The guide apparently was of great interest to educators: During the first month of its release (September 2008), the guide was downloaded 11,618 times from the WWC website (http://ies.ed.gov/ncee/wwc/pdf/practiceguides/behavior_pg_092308.pdf), more than any other guide produced thus far.

“Reducing Behavior Problems in the Elementary School Classroom” focuses on strategies teachers can use independently within their own classrooms, while at the same time recognizing their occasional need for the support of other professionals within the school or the community. In summary, the five recommendations are the following:

1. **Identify the specifics of the problem behavior and the conditions that prompt and reinforce it.** This recommendation emphasizes the importance of teachers compiling information about important aspects of problem behaviors in their classrooms—i.e., the specific behavior a student exhibits; its effects on learning; and when, where, and how often it occurs. This information can provide important clues about the underlying purpose of the problem behavior, a foundation for developing effective approaches to mitigating it.

2. **Modify the classroom learning environment to decrease problem behavior.** Teachers can alter or adapt classroom conditions or activities to influence the frequency or intensity of problem behaviors. When a teacher understands the behavioral hot spots in the classroom in terms of timing, setting, and instructional activities, for example, he or she can develop group and individual student strategies (e.g., change the seating plan or the order or pace of instruction) to reduce the contribution of these classroom factors to students’ problem behaviors.

3. **Teach and reinforce new skills to increase appropriate behavior and preserve a positive classroom climate.** Just as poor academic performance can reflect deficits in specific academic skills, some students’ failure to meet positive behavioral expectations may result from deficits in specific social or behavioral skills. Just as direct instruction can help students overcome academic deficits, students can benefit from teachers explicitly teaching the positive behaviors and skills expected of them continued on page 7.
History
In the spring of 2007, the Brockton Public School System decided to invest in the development of a team of professionals to help address the growing number of students with emotional and behavioral issues. The mission of the team was to help promote the idea that mental health in schools must be understood as essential to addressing barriers to learning and not separate from the school’s instructional mission. To this end, the Clinical Consultation Team (CCT) was born for the purpose of providing consultation to the school district on mental health and behavioral issues, assisting with crisis intervention and prevention, and promoting a culture of positive social-emotional development for at-risk students in their neighborhood schools.

Team Members
It was determined that this team should consist of members of both the regular and special education departments. Membership also included a consulting psychiatrist, the Department Head of Guidance, special education department heads, a school psychologist, and other staff members with relevant expertise related to individual cases.

Target Audience and Objectives
The CCT assists with students from Pre-K to grade 12 and works directly with building level administrators, school adjustment counselors, school psychologists, teachers, support staff, and parent/caregivers.

The goals and objectives of the initiative are to:

• Provide a comprehensive screening for students struggling with emotional and behavioral difficulties
• Help school level staff develop and implement comprehensive interventions that are matched to the needs of individual students
• Promote evidence-based practices and improve the skill levels of building based staff
• Improve student success academically and socially
• Promote culturally appropriate, community-based interventions
• Develop school-based and community intervention plans that allow students to remain in school and the family home, and to become a productive member of their community.
• Decrease student placements in alternative educational placements and divert them from entering juvenile justice facilities, inpatient hospitals, and out-of-home placements (foster care and residential treatment).

Referral Process
The school-based adjustment counselor completes a CCT Referral Packet, which includes:

• Parental permission slip
• Release of information
• A developmental history
• All academic records and assessments
• Educational Planning Team (EPT) or Instructional Support Team (IST) data and/or relevant information
• A description of all behavioral, counseling, and other support

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service interventions that have been implemented
• The CCT does not provide risk assessment or direct crisis intervention.
• Team Triage Process

The referral packet is sent to the Department Head of Guidance. Upon receipt, the Department Heads of Guidance and Therapeutic Services review the materials and determine if the case warrants consultation by the CCT. Factors involved with this decision include the severity of the student’s behavior or emotional trauma and the responses to intervention up to that point. The Department Head of Therapeutic Services contacts the referring school to obtain any additional information pertinent to the decision-making process. If the referral is accepted, the adjustment counselor is notified and given a date to present the case to the members of the Clinical Consultant Team.

Interventions/Services
The Clinical Consulting Team can offer one or more of the following services to the referring school:

• Psychological, psychiatric, or behavioral consultation including classroom observations and management recommendations
• Attendance and support at EPT or IST meetings to help develop appropriate accommodations
• Assistance in the completion of Functional Behavioral Assessments
• Assistance with the development and implementation of Behavior Support Plans
• Building level seminars conducted by the psychiatrist, psychologist, Department Head, or other relevant staff
• Professional development workshops for staff
• Specialized assessments, including psychiatric evaluations
• Consultation and recommendations regarding the securing of community-based interventions and supports
• Case conferences with school staff, student’s family, and outside agencies
• Parent conferences and outreach to home

Follow-up
The CCT provides a response form for each referral with recommendations and suggested interventions. A progress report from the school is requested in six weeks to monitor response to intervention and follow-up interventions are made on a case-by-case basis as warranted. These may include additional psychiatric evaluation, special education team meeting, change of school placement, staff workshops and trainings, and home visits or case conferences with community providers.

Program Data (9/07 to 5/08)
A total of 85 referrals were received by the CCT between September 2007 and May 2008. Of these, 48 were for students without identified disabilities, 33 were students already on an IEP, and 4 were students in an out-of-district program. Elementary schools referred the most cases at 48%, followed by the middle schools at 22%, the high school at 13%, the pre-K and K programs at 12%, and the Out-of-District Coordinator referred the remaining 4%.

Program Data – Outcomes
The CCT tracked the final placement outcome for the students under its care. Of the 85 cases seen, 27% of the students stayed in their regular education setting with some form of additional building level support. This might have included a behavior support plan, social skills group, or an academic intervention group. Thirty-two percent of the students did require special education services but were able to stay in their neighborhood schools. Some students (11%) were able to be placed in a special education inclusion setting, often in their neighborhood school. Also, 9% of the students evaluated were moved to a less restrictive setting. For example, a student who was

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Another group of students were placed in more restrictive settings, such as substantially separate classrooms (14%), public day school program (4%), or out-of-district program (3%). However, these placements were not necessarily considered a failure of the CCT process. After careful consideration and attempts at other interventions, many of these students required more intensive services resulting in a higher level of therapeutic care and academic support.

**Program Data – Efficiency**

Students were referred for a psychiatric evaluation after behavior at school was noted to be problematic and initial interventions were unsuccessful. The CCT approach is based on a review of data that is more comprehensive and longitudinal than approaches historically used by the Brockton Public Schools. On-site school visits, classroom observations, parent/student interviews, teacher/counselor interviews, report preparation, debriefing and reassessment opportunities are available as needed. This systemic change has made significant quality improvements within the school district that include the benefits of multidisciplinary collaboration, real-time feedback, and more active participation by all stakeholders in the process.

The triage process allows the team and consulting psychiatrist to prioritize urgent cases. The time to have a student seen for a psychiatric evaluation was reduced from an average of three months in the 2006-2007 school year to two weeks in the 2007-2008 school year. Prior to the CCT, psychiatric and therapeutic interventions were not being used in a cost effective way as the fiscal expense exceeded district allocations. However, during the 2007-2008 school year, the cost of providing more intensive services actually resulted in a significant savings to the district. The CCT also provided several workshops and in-service trainings on mental health, trauma, and other related topics. This allowed the special education department to use professional development funds for other areas of need.

**Thoughts on the First Year of Implementation**

Consultant Dr. Jeff Turley states “This type of collaborative problem solving is especially important when the system is faced with many trauma-reactive students. The first challenge in helping the traumatized child learn is recognition because responses to traumatic experiences are often indistinguishable from disruptive, angry, anxious, or regressed behavior from other causes. The observations of multiple professionals, using a “whole child” perspective, are less likely to miss the underlying traumatic aspects of a clinical presentation. Trauma-sensitive recommendations made by a team are less vulnerable to bias and stand a better chance of implementation than do written management suggestions at the end of psychiatric evaluation documented weeks or months after the initial request.”

**Future Challenges**

The biggest challenge to the Clinical Consultation Team is how to successfully manage the clinical needs traumatized children have with the demands of the “No Child Left Behind” culture of the urban schools. Administrators, teachers, and students are all feeling the pressure to succeed on a very tight timetable, and many of the interventions that the CCT recommends are clinically sound but require both a commitment and time to implement successfully. The CCT needs to foster an understanding within schools as to how these approaches will benefit all students and get buy-in from stakeholders to change their attitudes and approaches. This is and will continue to be the most difficult intervention that the CCT has to implement.

For further information about Brockton’s Clinical Consultation Team, please contact Kay Seale at kaycseale@bpsma.org

The biggest challenge to the Clinical Consultation Team is how to successfully manage the clinical needs traumatized children have with the demands of the “No Child Left Behind” culture of the urban schools.
at school. Showing students how they can use appropriate behaviors to replace problem behaviors and consistently providing positive reinforcement when they do can increase students’ chances of succeeding socially and behaviorally.

4. **Draw on relationships with professional colleagues and students’ families for guidance and support.** Recognizing the collective wisdom and problem-solving abilities of school staff, this recommendation encourages teachers to reach out to colleagues within the school—other classroom teachers, special educators, the school psychologists, and/or administrators—to help meet their students’ behavioral needs. Similarly, by engaging family members, teachers can better understand their students’ behavior issues and develop allies in intervening at home and at school to help students succeed. When behavior problems warrant accessing the services of community behavioral or mental health professionals, teachers are encouraged to play an active role in ensuring that services address classroom behavior issues directly.

5. **Assess whether schoolwide behavior problems warrant adopting schoolwide strategies or programs and, if so, implement ones shown to reduce negative and foster positive interactions.** The last recommendation reflects an understanding that a teacher may be more successful in creating a positive classroom environment when schoolwide efforts also are under way to create such an environment. Just as teachers can document and analyze the nature and contexts of behavior problems in the classroom, school leadership teams can map the behavioral territory of the school and use the information to develop prevention strategies and to select and implement schoolwide programs for behavior intervention and support when warranted.

Several principles run throughout these recommendations. One is the importance of relationships in any focus on student behavior. Student behavior is shaped by and is exhibited and interpreted within a social context that involves multiple actors, multiple settings, and multiple goals. Positive behavior is more likely to thrive when relationships at all levels are trusting and supportive and reflect a shared commitment to establishing a healthy school and community.

Another principle that underlies the recommendations is the critical need for increased cultural competence in developing positive relationships in school and community contexts. As our school and community populations become increasingly diverse, all school staff members must learn about, become sensitive to, and broaden their perspectives on what may be unfamiliar ways of learning, behaving, and relating.

Additionally, school staff clearly will need to translate the recommendations into actions that are appropriate to their specific contexts. Thus, the recommendations emphasize processes and procedures that can be adapted to a wide range of contexts rather than providing specific recipes that may have limited applicability.

Finally, the recommendations emphasize the importance of being data driven—having current information about behavior problems and successes at the school, classroom, and student levels—and monitoring the effectiveness of strategies by continuing to collect and review data to support continuous improvement and achieve maximum results. Challenging behaviors are learned over time; acquiring positive behaviors also takes time. Documenting progress and celebrating small achievements along the way can help sustain the efforts needed to succeed.

To download a PDF of the guideline, please go to http://ies.ed.gov/ncee/wwc/pdf/practiceguides/behavior_pg_092308.pdf

Student behavior is shaped by and is exhibited within a social context that involves multiple actors, multiple settings, and multiple goals.
identify common practices. The case studies do not evaluate the programs or assess whether the practices are effective. Instead, the report provides in-depth descriptions of the schools’ math education approaches and reveals insights across broadly shared sets of practices.

**Sample Practices**
The six schools made diverse efforts to improve math learning for students with disabilities and other struggling learners. (See Table 1 for an overview.) They also shared a number of practices in name that were implemented in different ways. For example, each of the schools had formal or informal in-house math leaders; in-class and additional out-of-class math support services; experienced staff members who analyzed and communicated assessment results; and highly collaborative and supportive school cultures. Teachers and administrators at the six schools identified several of these practices as strengths of their school’s approach to math education for students with disabilities and other struggling learners. The following sections highlight how the three urban schools, Cedar, Redwood, and Beech implemented these practices. (Table 2 provides demographic data for the schools.)

**In-House Math Leaders.**
Cedar, Redwood, and Beech had highly experienced full-time math leaders who offered professional development and support to help general and special education teachers provide high-quality classroom math instruction. These in-house math specialists were available to assist teachers when questions arose about teaching particular math topics to meet the needs of struggling learners. Teachers noted that because the math leaders did not supervise or evaluate them, they felt comfortable turning to these

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### Table 1: Overview of the Six Case Study Schools, 2006-2007

<table>
<thead>
<tr>
<th>School and Setting</th>
<th>Highlighted Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar School</td>
<td>Math leader was involved in all aspects of math education, including teaching students; supporting teachers; and doing curriculum planning, schoolwide professional development, and assessment analysis.</td>
</tr>
<tr>
<td>Massachusetts Urban</td>
<td></td>
</tr>
<tr>
<td>Redwood School</td>
<td>School leadership gave teachers the freedom and responsibility to teach creatively. Staff members praised principal for his leadership, dedication to teachers and students, and multifaceted school reform efforts that have contributed to improvements in math teaching and learning.</td>
</tr>
<tr>
<td>New York Urban</td>
<td></td>
</tr>
<tr>
<td>Maple School</td>
<td>Teachers met weekly in professional learning communities to share instructional strategies and brainstorm ways to help struggling math learners. Full-day district meetings were held every month to align curriculum with standards, develop assessments, and analyze student data.</td>
</tr>
<tr>
<td>New York Rural</td>
<td></td>
</tr>
<tr>
<td>Aspen School</td>
<td>A variety of math support services were provided in inclusion and pull-out settings. Students with language-related learning disabilities were placed in classrooms with their general education peers and received in-class support. The school also provided Title I math services, a special education resource room, and a Response to Intervention program.</td>
</tr>
<tr>
<td>Massachusetts Suburban</td>
<td></td>
</tr>
<tr>
<td>Beech School</td>
<td>Math supports and interventions were available before, during, and after school. Each grade had a collaborative class in which students with disabilities were taught by full-time co-teaching pairs of general and special educators. The school provided extensive intervention services for struggling students.</td>
</tr>
<tr>
<td>New York Rural</td>
<td></td>
</tr>
<tr>
<td>Willow School</td>
<td>Middle school math teachers were paired with upper elementary teachers in a teacher-generated initiative to provide twice-weekly classroom support in math to elementary teachers. Middle school teachers provided math content expertise. They worked alongside the classroom teacher with small groups of struggling learners and led whole-class instruction.</td>
</tr>
<tr>
<td>Massachusetts Rural</td>
<td></td>
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</tbody>
</table>
leaders for assistance. As a Beech teacher described “I can always go to the two math coaches and ask them for support and ideas. When I was a new teacher, [the coach] came in for a week and we worked as a team.” Beech’s two math coaches, Cedar’s math lead, and Redwood’s math specialist helped teachers with curriculum implementation, offered instructional guidance, modeled lessons, and would co-teach with teachers in their classrooms. They led math workshops at staff meetings and mentored new teachers.

The specialist/math coaches at Redwood and Beech provided support primarily to teachers. In contrast, the math lead at Cedar also provided daily, direct instruction to struggling students in Grades 2-4 in the school’s dedicated math resource room. At the beginning of the year she supplemented students’ regular math lessons by meeting three times a week with students with disabilities and other struggling learners. Later in the year she focused on struggling general and special education students in Grades 3 and 4 to prepare them for the state assessment in May. In this way, Cedar students who were weakest in math received math instruction and support from the school’s strongest math teacher. The principal noted that by working directly with students and teachers, the math lead could more knowledgably monitor student progress, communicate guidance to students’ teachers, and coordinate effective math services for struggling learners.

**Math Support Services.** An array of formal math support services was available at the three urban schools. For students with disabilities, Redwood and Beech offered a continuum of classroom placement options, including an inclusion classroom at each grade level that

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**Table 2: Student Demographics at the Three Urban Case-Study Schools, 2006-2007**

<table>
<thead>
<tr>
<th></th>
<th>Cedar Urban MA</th>
<th>Redwood Urban NY</th>
<th>Maple Rural NY</th>
<th>Aspen Suburban MA</th>
<th>Beech Urban NY</th>
<th>Willow Rural MA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade span</td>
<td>1-4</td>
<td>PreK-6</td>
<td>K-4</td>
<td>K-4</td>
<td>K-5</td>
<td>PreK-8</td>
</tr>
<tr>
<td>Number of students enrolled</td>
<td>430</td>
<td>970</td>
<td>230</td>
<td>380</td>
<td>1240</td>
<td>420</td>
</tr>
<tr>
<td>Percent of students with disabilities (i.e., with IEPs)</td>
<td>12</td>
<td>21</td>
<td>12</td>
<td>14</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Percent of students from low-income families*</td>
<td>91</td>
<td>84</td>
<td>37</td>
<td>17</td>
<td>81</td>
<td>14</td>
</tr>
<tr>
<td>Percent of students of races other than white</td>
<td>88</td>
<td>95</td>
<td>2</td>
<td>4</td>
<td>98</td>
<td>31</td>
</tr>
<tr>
<td>Percent of students with limited English proficiency</td>
<td>18</td>
<td>11</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>6</td>
</tr>
</tbody>
</table>

*In New York and Massachusetts students from low-income families are eligible for free or reduced-price lunch. In Massachusetts, such students may also receive Transitional Aid to Families benefits or are eligible for food stamps.

Sources: The Massachusetts Department of Education (2008), the New York State Education Department (2006), and interviews with school principals. These data are excerpts from larger data tables found in the full report cited at the end of the article.
was co-taught by full-time general and special education teachers. For struggling learners without IEPs, the math lead at Cedar provided math instruction and support in the math resource room, and an intervention teacher at Beech conducted diagnostic math assessments and provided intensive support services to small groups of students. For all struggling learners with or without IEPs, the three schools offered before- and after-school or Saturday morning math support classes, as well as summer school and vacation math review and test prep programs. Each school tried to place general and special education students in math support classes led by their regular classroom teachers whenever available. Teachers noted that such placements facilitated more coordinated math support for students.

Assessment. Cedar, Redwood, and Beech conducted frequent assessment of all general and special education students. They administered not only the annual state test to students in Grades 3 and above, but also annual or more frequent district- or school-based benchmark assessments to these and younger students. The Beech school followed district policy by administering a published math assessment five times a year to all students in Grades 3-5. Lacking a similar test for students in Grades K-2, the Beech principal, math coaches, and a group of teachers applied for and received grant funding to create and implement their own assessments at these grades.

At all six schools, math leaders and senior administrators played a key role in analyzing assessment data and communicating findings with school staff. They used these analyses to determine which students needed math intervention and support services, inform classroom instruction, and identify weak areas in the curriculum. The Redwood math specialist underscored the importance of these analyses: “You need data to drive your instruction. If you don’t have that, you don’t know where you are going.” The intensity of the schools’ assessment activities indicated a strong commitment to monitoring the academic performance of all students, and to using student performance data to tailor and improve math teaching and learning.

Collaboration. Teachers and administrators at all six schools described highly collaborative staff cultures where teachers worked closely, creatively, and flexibly to meet students’ needs. Teachers and administrators at all six schools described highly collaborative staff cultures where teachers worked closely, creatively, and flexibly to meet students’ needs. A Cedar teacher explained: “We work as a community.” Administrators at each school were described as supportive, respectful, and empowering, and they may have helped to build cooperative and close-knit cultures by establishing numerous opportunities for formal teacher collaboration. Common planning time for grade-level general education teachers was available daily at Cedar and Redwood and weekly at Beech. General and special education co-teachers collaborated daily in inclusion classrooms at Redwood and Beech.

In these collaborative environments, teachers said they felt comfortable...
sharing weaknesses and asking colleagues how to help a struggling student or teach a particular math topic. Teachers at each school described a sense of shared responsibility for the learning of all students within the school, and a willingness to take risks and work together to solve student problems. An administrator at Redwood suggested that to serve a large body of diverse students with multiple needs, teachers require school-wide support for constant innovation and adaptation. “People can be as creative as they want… and know that we’re going to support them,” he said. “When children are coming with all kinds of needs, from one day to another, from medication issues…to community issues, teachers and staff have to be able to try to be creative in addressing the kids’ needs. Nobody understands unless they’ve been in an inner-city school.”

Common Strengths and Challenges. In addition to the practices described above, teachers and administrators at the six schools identified the following common strengths: high-quality staff; the use of a variety of instructional strategies to meet individual student needs; and strong, supportive school leaders who encourage teachers to grow and give their best efforts to students and the school as a whole. They also acknowledged the following common challenges: insufficient staffing for student math support; insufficient time for math instruction; limited math content knowledge among many teachers; lack of high-quality math assessments and interventions; and the inherent difficulties of raising achievement levels among students with substantial and often multiple needs. The report calls for further research on what kinds of math interventions and support services are effective for students with disabilities and struggling learners; how best to deploy math leaders to improve math teaching and learning; and how to foster supportive school cultures that enable teachers to work collaboratively and creatively to help all students become successful math learners.

Note: School names are pseudonyms. Source: Authors’ analysis is based on classroom observations and interviews with teachers and administrators.

Josephine Louie is a Research Associate and Amy Brodesky is a Project Director at the Regional Educational Laboratory Northeast and Islands, which is administered by Education Development Center, Inc. REL-NEI is one of 10 Regional Educational Laboratories funded by the Institute of Education Sciences at the U.S. Department of Education, and provides rigorous research that is relevant to national education priorities, responsive to local needs, and usable for policy and practice. This article is funded at least in part with federal funds from the U.S. Department of Education under Contract Number ED-06-CO-0025.

Sample practices described in this article and other findings are discussed more fully in “Math Education Practices for Students with Disabilities and Other Struggling Learners: Case Studies of Six Schools in Two Northeast and Islands Region States.” The full report can be found at http://ies.ed.gov/ncee/edlabs/projects.
Collaborative Fall Meeting Focuses on Identifying and Meeting the Needs of English Language Learners

The Collaborative’s 2008 Fall Meeting on “Identifying and Meeting the Needs of English Language Learners” was held in Denver, Colorado, from October 29th through November 1st. Approximately 160 attendees representing 63 member school districts participated in the meeting, which featured keynote speaker Dr. Alba Ortiz, Director of the Office of Bilingual Education at the University of Texas, Austin, and guest speaker Dr. Janette Klingner, Professor of Education at the University of Colorado, Boulder, and Co-Principal Investigator at The National Center for Culturally Responsive Educational Systems (NCCREST). In addition, eight member districts gave presentations on programs and strategies that they have implemented to address the needs of English Language Learners (ELLs), particularly around the intersection of services for ELLs and students with disabilities.

Denver was an appropriate setting for this meeting, sharing many demographic similarities with other urban school districts around the United States, particularly with respect to ELLs. As part of their welcome to meeting attendees, Sharon Hurst, Director of Special Education for Denver Public Schools (DPS), and Ken Santistevan, Special Assistant to the Superintendent for Community Relations, provided a snapshot of their city’s student population. According to recent data, ELLs comprise approximately 20% of all students in DPS. And although Denver has historically had a significant Spanish-speaking population, the city’s demographics are becoming increasingly diverse. There are currently about 90 different first languages and dialects spoken by students throughout the district, which reflects a national trend toward increased cultural and linguistic diversity.

Given this trend, the topic of “Identifying and Meeting the Needs of English Language Learners” was timely and relevant for Collaborative member districts. The point was made by both attendees and presenters that programs for students with disabilities and programs for ELLs often operate in separate “silos,” despite the many similarities and significant overlap between the two populations. This lack of coordination can lead to inappropriate special education referral and placement, inaccurate evaluation and assessment, insufficient or disjointed progress monitoring, and problems with service delivery, all of which may impact the extent to which ELLs, particularly those with disabilities, are able to access the general education curriculum. As such, ELLs generally have lower academic achievement and less success in school than their English-speaking peers, including lower rates of proficiency/mastery on curriculum standards, lower graduation rates, higher dropout rates, and higher rates of suspension and expulsion. Dr. Ortiz and Dr. Klingner each addressed some of these issues, and each described ways that were more integrated for schools and districts to meet the needs of both ELLs and students with disabilities.

Dr. Alba Ortiz’s keynote address focused on “Identifying and Meeting the Needs of English Language Learners with Disabilities.” One of the main points of her presentation was that ELLs and students with Learning...
Disabilities (LD) share many similar characteristics, and as a result, it may be difficult for educators to distinguish learning problems caused by LD from those that stem from limited proficiency in English. In fact, Dr. Ortiz cited a statistic from an OSEP-sponsored panel of experts which found that as many as 75% of ELLs with reading-related disabilities may be misclassified.

Dr. Ortiz also noted that typical referral and evaluation processes for special education tend to presume that learning problems stem from individual deficits, and they do not give due attention to the interplay between the learner and the instructional environment. To provide an example of how the special education process can be more compatible with the needs of ELLs, Dr. Ortiz outlined the BESr ERA Model (Bilingual Exceptional Student: Early Intervention, Referral, and Assessment) for determining eligibility, which emphasizes an element of shared knowledge and responsibility throughout the school. In particular, all staff members must have at least a general understanding of language acquisition and development so that they can effectively implement school-wide supports for all students, and so that they can provide more culturally-responsive interventions for ELLs who require targeted assistance. This model helps reduce inappropriate referrals to special education, more accurately identify ELLs with disabilities, and ensure that individualized supports and interventions incorporate strategies known to be effective for both ELLs and students with disabilities.

Guest speaker Dr. Janette Klingner, in her presentation titled “Identifying English Language Learners for Special Education in RTI,” described the need for a culturally- and linguistically-responsive model of Response to Intervention (RTI), and outlined key principles and features for such a model. Dr. Klingner emphasized that most “evidence-based” educational strategies have not been sufficiently validated with ELLs, and that in most cases, general and special educators who are carrying out RTI assessment and interventions do not have sufficient training in working with ELLs. These factors are important because research shows that there are significant differences between learning to read in one’s first language and learning to read in a second language. Measures of reading proficiency in one or both languages can be inaccurate, often fail to demonstrate the full range of the student’s knowledge and ability, and may ultimately contribute to the disproportionate representation of ELLs in special education. So to implement a more culturally- and linguistically-responsive model of RTI, Dr. Klingner recommended increased collaboration between English-as-a-Second-Language (ESL) staff, general educators and special educators in providing generalized monitoring for all students and targeted supports for students with disability- and language-related needs.

During concurrent sessions, meeting attendees had the opportunity to hear about programs and strategies that some Collaborative member districts
have implemented to address the needs of English Language Learners (ELLs) with and without disabilities. There is a wide range of models, including bilingual education, sheltered ESL, and two-way immersion, which districts are using to best meet the needs of all their students. Some districts also described their efforts to become more culturally-responsive in working with families of ELLs. The following districts presented during concurrent sessions:

**Miami-Dade County Public Schools (FL):** “EL SOL” (English for Speakers of Other Languages). Meeting the Needs of English Language Learners in the Miami-Dade County Public Schools

**Chesterfield County Public Schools (VA):** “Achieving Academic Success: One Locality’s Collaborative Approach to Working with English Language Learners”

**Clark County School District (NV):** “Student Achievement Linked to Services Alliance (SALSA): Linking Special and Bilingual Education Services”

**Austin ISD (TX):** “Working with English Language Learners: Making Connections with Learners, Parents and the Community”

**Saint Paul Public Schools (MN):** “Saint Paul Public Schools’ Model for the Special Education Evaluation of English Language Learners”

**Los Angeles Unified School District (CA):** “Diverse Strategies for a Diverse City”

**Orange County, FL:** “Making Response to Intervention Work for Culturally and Linguistic Diverse Students”

**Washoe County (NV):** “Meeting the Needs of English Language Learners in Washoe County – A Work in Progress”

Descriptions of these presentations can be found at [www.urbancollaborative.org](http://www.urbancollaborative.org). Collaborative members and associates may download copies of the presentations and handouts by logging into Member Exchange at [www.urbancollaborative.org/login.asp](http://www.urbancollaborative.org/login.asp)
Leadership Journal Highlights Challenges and Successes of Lawsuit Consent Decree Implementation

The latest issue of the *Journal of Special Education Leadership* (JSEL) is dedicated to “Critical Issues in Urban Special Education: Lessons from Los Angeles Unified School District”. Co-edited by the Collaborative’s Executive Director, Dr. David Riley, and court-appointed Independent Monitor Frederick Weintraub, the issue highlights the challenges and successes of implementing the provisions of a unique five-year-old, outcomes-driven modified consent decree. The modified consent decree evolved from a 1993 special education class action lawsuit against the nation’s second largest school district.

The JSEL publication presents the work of Los Angeles Unified School District leaders, plaintiffs’ attorneys, a court-appointed mediator, and the Office of the Independent Monitor to resolve some of the most demanding urban special education leadership, management, and service delivery challenges. These include: increasing the performance of students with disabilities on the statewide assessment program, improving graduation and completion rates, reducing suspensions, increasing home school placements and the delivery of services in the least restrictive environment, complying with transition planning requirements, and improving the rate of timely completions of evaluations.

Articles in the September 2008 JSEL issue focus on decreasing disproportionality, increasing parent involvement and satisfaction, reducing long-term student suspensions, and effectively measuring the delivery of special education service delivery. The issue concludes with a commentary by Dr. Riley reflecting on the efficacy of special education lawsuits in being catalysts for positive systemic change.

Collaborative members and associates received complimentary copies of the JSEL issue. Non-members may obtain copies from the Council of Administrators of Special Education, 101 Katelyn Circle, Warner Robins, GA 31088. To view research reports, surveys, implementation plans, and performance analyses from the work in Los Angeles, please visit http://www.oimla.com.
The Collaborative currently links 112 school districts from 32 states plus the District of Columbia and the Virgin Islands. Seven school districts have joined since May 2008:

- **Jefferson County Public Schools, KY**
- **Washoe County School District, NV**
- **School Board of Orange County, FL**
- **Saugus Public School, MA**
- **Lincoln Public Schools, MA**
- **Milford Public Schools, MA**
- **Community Consolidated School District #181, IL**

For a complete list of Collaborative members and enrollment information, please visit our Web site at [www.urbancollaborative.org](http://www.urbancollaborative.org).