

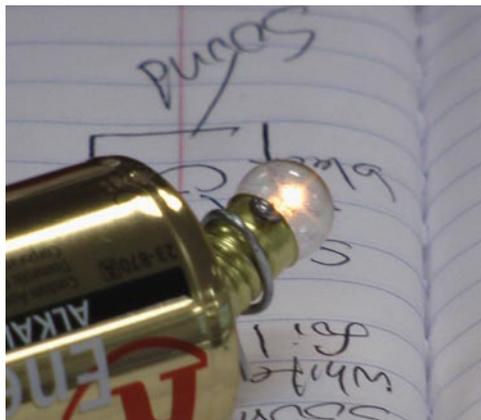
Rice Model Lab Program Expands to Include Elementary Teachers

C.J. THOMPSON AND WALLACE DOMINEY

For more than fifteen years, Rice University Center for Education has partnered with Houston Independent School District to provide rich and sustained professional development for science teachers in a laboratory environment. The Rice Model Science Laboratory (RML) at Lanier Middle School and the Partners for Houston Laboratory (pH Lab) at Lee High School each provide a unique opportunity for middle and high school teachers to work intensely throughout an entire school year on their science content and pedagogy. A new Center for Education program, the RICE/HISD Elementary Model Science Laboratory (REMSL) at Sanchez Elementary, has been added to provide much needed lab experience for elementary school teachers of science.



Teacher-interns in the Rice/HISD Elementary Model Science Lab work collaboratively on a project demonstrating their understanding of electric circuits. L-R: Octavia Archie (R.P. Harris Elementary), Catherine Filopovich (DeZavala Elementary), Maria Picon (Franklin Elementary), and Sherri Drew (Southmayd Elementary).



Lights are going on for teachers participating in the new Rice/HISD Elementary Model Science Lab.

Elementary school teachers are traditionally underserved in science. Most teachers in the lower grades think of themselves as primarily language arts or math teachers. A lack of extensive college course requirements in science and the lack of adequate in-service training combine to create teachers who feel out of their element when it comes to science. This, in turn, leads to too many classrooms where science, if taught at all, is not taught particularly well. A program designed to address these issues must also address the relatively larger numbers of teachers that teach science in the lower grades. There are nearly 200,000 elementary teachers state-wide!

of the East Region where the Lab is located, members of the Curriculum Department, principals, program managers, science content specialists, and teachers to get their input. Having elementary teachers attend the Lab one day every week throughout the academic year was determined to be the best compromise between the needs for intensive and sustained professional development and the need to have teachers teaching in their own classrooms.

The biggest improvement in my teaching is expecting more from my students.

—Sherri Drew, REMSL Intern
Southmayd Elementary

Inside this Issue

From the Directors	3
The Center's New Offices.	3
Texas Dropout Conference	4
Center researchers in Austin	5
SLC's HELP for Kids Grant	6
Early Literacy and Teachers' Craft	8
Teach Like Your Hair's on Fire.	9
We're All Neighbors	9
Largest MATS conference.	10
Pipettes to Go	11
Come Join Us	11
Upcoming Events	12

The process of creating REMSL began approximately a year ago when Center CoDirectors Drs. Sass and McNeil and the Center's K-12 science outreach director Dr. Wallace Dominey met with HISD Superintendent Dr. Abelardo Saavedra. They discussed forming a partnership to expand the Center's science outreach programs to include support for HISD's elementary teachers. Meetings followed with HISD's Chief Academic Officer, Dr. Karen Soehnge, Area Superintendents, including Thelma Garza

REMSL opened in August of 2006 at Sanchez Elementary School (principal Jesse Herrera). Center employees C.J. Thompson (Associate Director for Teacher Training), Reid Whitaker (Associate Director for Program Support) and Vicki Woods (Staff Assistant) are charged with implementing the Lab Program under the leadership of Lab Executive Director Dominey. Michele Olivar, HISD Science Department Specialist, and Sandy McClemore, HISD Professional Development Trainer, assist the program with Intern campus support.

(continued next page)



Lab Associate Director C.J. Thompson demonstrates a food web with the help of Interns representing various plants and animals.

The Learn.Rice.edu website, created by Dr. Dominey and his staff, allows Interns to share resources, establish a community of learners, and to keep track of their work in the Lab. In addition, Learn.Rice.edu has features that teachers can use beyond the Lab setting. Learn.Rice.

REMSL currently serves ninety Interns from more than seventy HISD elementary schools. The Interns are divided into four cohorts, one for each day, Monday through Thursday. Interns return each week for a full day of training in the Lab while their classrooms are taught by specially trained “Partner Teachers.” By the end of this school year, the Interns will have attended nearly thirty specially designed training days totaling almost 200 hours of professional development.

The training in the Lab focuses on science content and effective instructional strategies, infused throughout with the concept of inquiry learning. The science content is tied directly to the district and state learning standards (Texas Essential Knowledge and Skills) and is scheduled so that teachers are exploring concepts two weeks before they will teach those same concepts in their classrooms. This allows the Interns time to assimilate the new learning and to design ways to teach the essential understandings to their own students. The training is supplemented by a variety of other resources including an eLearning website (<http://Learn.Rice.edu>), teaching materials, and presentations by Rice University professors.

I believe that my ability to use more effective methods will have a positive impact on my students.

—Matilda Gilbert, REMSL Intern
Grimes Elementary

edu can be used to build and administer online tests, for example, to assess student knowledge before teaching begins.

One frequently observed obstacle to effectively teaching inquiry-based science lessons is a lack of classroom materials. To help teachers overcome this deficiency, each REMSL participant received Materials Resource Tubs for earth/space, life, and physical sciences. Each Tub contained the supplies needed to transfer the activities from the Lab to the classroom.

Nothing can establish a feeling of being a serious student of science like a dialogue with a university professional currently involved in scientific research. Throughout the year, Rice professors have come to visit the lab and have presented on topics tied to their area of expertise as well as to the science content the Interns must learn. In these interactions, questions are answered, misconceptions addressed, and areas of uncertainty made clear all in

an atmosphere that makes teachers feel that they are making a connection to the real world of scientific research. This year Drs. Andrew Barron, John Hutchinson, Dale Sawyer, David Alexander, Richard Gomer, Carrie Masiello, Ron Sass, Joan Strassmann, and Wallace Dominey presented in the Lab on “Matter and Energy,” “Chemical Properties,” “Forces of the Earth,” “Properties of the Sun,” “Inherited vs. Acquired Traits,” “Carbon Cycle,” “Water Cycle,” “Life Cycles,” and “Adaptation,” respectively.

I have gained so much knowledge in science. I have also gained an appreciation for how science should be taught to children. Most importantly, I have learned that as teachers what we really do is to guide students to discover and create their own learning.

—Martha Dahl, REMSL Intern
Oates Elementary

Much to the delight of both Rice and HISD, teacher practice is already changing in the classroom over the relatively short period of time the Lab has been in existence. Teachers are taking back to their classrooms a deeper understanding of the science concepts,



Wallace Dominey (left), Director of K-12 Science Outreach, and Ron Sass (right), Co-Director of the Center for Education, observe Lab Interns conducting hands-on science experiments.

enhanced strategies for involving students in scientific inquiry, and the confidence to use both.

Many REMSL Interns are already becoming agents of change in their schools. Their knowledge and enthusiasm are obvious to their administrators, to visitors, to other teachers on their campuses, and to the children. This ‘multiplier effect’ was one of the original goals of REMSL and it appears to be occurring, even in this inaugural year.



Directors' Column: Inviting Learning

In a recent speech at the University of Wisconsin-Madison, Deborah Meier, noted educator and MacArthur Fellow, told the gathered faculty, graduate students, and future teachers that a school should be “*a community of adults who are excited about learning and invite children to join them.*” Meier, author of *The Power of Their Ideas*, was sharing the philosophy that guided her creation of Central Park East Secondary School in Spanish Harlem and, more recently, the Mission Hill School in a high-poverty section of Boston. We think her definition of what school should be also captures the heart and soul of the work of the Rice Center for Education.

“*Adults excited about learning*”? Look no farther than Sanchez Elementary School, where the Center for Education has joined with HISD to engage elementary teachers from across the city in hands-on science learning. The excitement of discovery, the puzzling out of an experiment, the joy of inventing a new way to demonstrate a concept – every day the Elementary Model Science Lab buzzes with the energy of teachers who are finding their own curiosities awakened and doing so as a *community* – getting their hands dirty, their work tables messy, their ideas tested together.

“*Inviting children to join them*”? No more bean seeds sprouting on wet paper towels. To make every child into a thinking botanist, the Elementary Model Lab teachers invite children to take charge of their own plant, by giving each a “test tube necklace” for carrying their sprouting seed, inviting children into the close observation, accurate calculation, and sharing of findings true to scientific investigation.

New Offices for Center!

In October, the Center for Education moved to new offices! In a change that increases our accessibility, Rice University has relocated some of the university’s outreach organizations to the International Bank of Commerce Building at 5615 Kirby, near campus. Educators and community groups will find our new offices much easier to find, with free visitor parking.

We have lovely third-floor offices (*see below*) **with windows** and plenty of storage for our teacher-support supplies, and all our offices are together now in one area. We have a conference room/teacher resource library and a shared classroom, which is kept busy with an assortment of science and literacy classes for the participants in our programs.



The excitement of learning words and the power of story are at the heart of School Literacy and Culture’s work with teachers of the very youngest children – including this year childcare providers in such settings as Gabriele Mistral Early Learning Center and family day homes, through a HELP for Kids grant. The circles of support for early literacy begin with the mentor teachers, themselves a strong community, then extend to the teachers they mentor, and very quickly engage the children in lively and almost irrepressible enthusiasm for telling their stories, for wanting more and more things to do with words. Thanks to Andrea White, an opportunity to participate in “We Are All Neighbors” gave SLC the chance to further broaden its community of “adults excited about learning.” (See page 9.)

The Center’s great success in helping teachers learn in ways that engage more and more of their children in powerful learning is to be treasured. But we are also concerned about the children who leave school without feeling connected to learning, many without graduating. To make the public aware of the losses of *more than 135,000 youth every year* from Texas high schools, the Center partnered with Harvard Civil Rights Project, Children at Risk, and others in October 2006 in a conference on the Texas Dropout Crisis. We cannot say that the 400 who attended were “excited about learning” these dire statistics and the causes behind them. But we do know that as a result of making public the convergence of independent studies documenting the severity and complexity of the problem, we are now seeing legislative proposals, media attention, and a greater community commitment to not only keeping youth in schools, but making those schools inviting places to be and to learn.

In Centerpiece, we share our work, our connections with teachers and schools, our research findings, our activities and accomplishments. We also hope that through Centerpiece, our readers are able to see beyond the almost daily crises and troubling statistics in our schools and see the possibilities that can happen for children when adults, in strong community, are excited about learning and hopeful for children.

—Ron Sass and Linda McNeil



Research in the Public Interest: The Center for Education Takes the Lead on the Dropout Crisis



Host Committee Chair and Center for Education board member Susie Dilg opens the conference.

EILEEN COPPOLA, Ed.D., RESEARCH SCIENTIST

On October 6th, Rice University opened its doors to more than 350 educators, policymakers, scholars, and journalists for a daylong conference to present authoritative research on the number of high school dropouts in Texas. The Center for Education's Research Team sponsored and organized the conference along with the Civil Rights Project at Harvard, Children at Risk in Houston, and Editorial Projects in Education Research, a branch of the newspaper *Education Week*. That conference and a legislative briefing that we co-sponsored in Austin on January 23rd have created opportunities for Center research staff to work with other organizations and the media to provide critical information influencing how the dropout issue will be treated in this year's legislative session.

Dropouts: A Growing Awareness

Nationwide, researchers have known for several years that in our urban areas approximately half of the students who begin high school never finish. In Texas, only 67% of all Texas students who begin high school go on to graduate, 60% of African American students, 58% of Hispanic students; only 49% in Houston ISD, and 43% in Dallas ISD graduate. The public has not been aware of the severity of the dropout crisis, since the state education agency and local districts usually report graduation rates far higher.

A year ago, Linda McNeil began conversations with Gary Orfield of the Harvard Civil Rights Project to co-sponsor a conference that would bring research on Texas and the southwest to Rice. Similar conferences had been held in Chicago, New York, Atlanta, and Phoenix.

Joining the Center for Education's researchers, Linda McNeil, Eileen Coppola, and Judy Radigan, was Stephen Klineberg, a sociology professor at Rice. Colleagues from University of Texas included Angela Valenzuela and Julian Vasquez Heilig with the Educational Policy Center. From around the nation came Gary Orfield and Dan Losen

with the Harvard Civil Rights Project; Chris Swanson with Editorial Projects in Education Research Center, Robert Balfanz from John Hopkins University, and Linda Darling-Hammond from Stanford University. These researchers provided both the statistical realities that circumscribe the critical dropout problem and the life stories of students trying to finish their high school education. These studies can be accessed through the Center for Education's website at <http://centerforeducation.rice.edu/Research/dropoutconf.htm>.

The featured luncheon speaker, Maria "Cuca" Robledo Montecel from the Intercultural Development Research Association called for community action, which was reemphasized by HISD's Superintendent Abe Saavedra and his cohorts on a local area panel. The final panel, including State Representatives Dora Olivo and Scott Hochberg, Urban League's Sylvia Brooks, LULAC's Renato De Los Santos and MALDEF's Luis Figueroa fostered a discussion of ways to advance policy changes on the dropout crisis. Eileen Coppola and Linda McNeil moved from the research issues on dropouts to legislative changes in their next steps.



Dr. Abelardo Saavedra, Houston ISD Superintendent, answers questions from conference attendees. L-R: Dr. Gary Orfield, Harvard Civil Rights Project; Dr. Sandra Mossman, Superintendent, Clear Creek ISD; Dr. Duncan Klussmann, Superintendent, Spring Branch ISD; and Dr. Saavedra.



Findings from the Conference: Graduation Rate Crisis in Texas

Texas Graduation Rates, 2002-2003

Percentage of Students Graduating in Four Years, using Cumulative Promotion Index and the Common Core of Data

Group	Graduates
All Students	66.8%
African American	59.9%
Hispanic	57.8%
White	75.0%
Asian	83.1%
Female	71.0%
Male	62.8%
Houston ISD	48.9%
Dallas ISD	46.3%
Forth Worth ISD	48.0%
Austin ISD	55.1%
El Paso ISD	57.3%
San Antonio ISD	51.9%

Editorial Projects in Education Research (2006)



Dr. Judy Radigan and three former-dropouts (now students at Reach Charter School, HISD) discussed the ways in which school policies intersect, and sometimes conflict with, their lives as urban youth, making it difficult for them to persist in school. Listening to the life stories of these students was a highlight of the conference.

Next Steps: Engaging Texas Legislators

On January 23, 2007, the Center for Education co-sponsored a legislative briefing in Austin on the dropout crisis with Children at Risk, the Intercultural Development Research Association, the Center for Public Policy Priorities, the Texas Center for Education Policy at U.T., and Project Appleseed. Over 60 legislators and aides attended this briefing, just prior to the opening of the session. Eileen Coppola presented a compilation of graduation rates on behalf of the Center. What followed from that meeting demonstrates the power of strong research and public information to positively shape the action of policymakers.



Dr. Eileen Coppola confers with legislators in Austin.

Legislative aides from various offices followed the briefing by requesting additional information on the ways that graduation rates are calculated and what programs might be put in place to help more students complete high school. Over the several weeks preceding the deadline to submit new bills, the Center assisted legislative offices by providing summaries of research on how to track who graduates, and helping determine what kind of policy should result from it. Calls from print and broadcast media came into the Center for Education as well as to other sponsoring organizations, resulting in a front page story on the dropout rate in the *Houston Chronicle*, which was picked up by the Associated Press and run in 30 newspapers statewide. "If you live in a city like Dallas or Houston, and half

of your kids are not finishing high school, it's a social crisis because we know that those kids will likely live in poverty, be much more likely to go to jail, and they will have more health problems," Coppola was quoted as saying.

The Center Research team, especially Dr. Coppola, were very involved with helping Representative Rick Noriega's office draft legislation addressing the dropout issue, and we were able to provide assistance to other legislators as these bills were being shaped.

For more information on the Center's work on this issue, go to our website <<http://centerforeducation.rice.edu/Research>>

137,162

Number of Texas students lost to attrition, school year 2005-06

2,533,169

Cumulative Texas students lost 1986-2006

www.idra.org

Dropping Out Costs the Individual

Annual wages: \$16,302 vs. \$25,513
(U.S. Census Bureau)

High School Dropouts Cost the State of Texas

40% receive government assistance
Eight times as likely to be incarcerated

Low wages translate to loss of tax revenue

From 1986 to 2006
cost to the state of Texas:

\$730.1 billion

www.idra.org



School Literacy and Culture Project Joins with HELP for Kids to Create New Classroom Worlds

KAREN CAPO, SCHOOL LITERACY AND CULTURE PROJECT ASSOCIATE DIRECTOR

“Before, there was [just] a room; now there are centers – reading, library, writing, science, music, dramatic play, manipulative play with blocks. There’s a new world in our classroom, and we love it. Before these classes, I taught and the children listened. Now, we teach and listen to each other. I listen and learn, and the same is true for them. We learn from one another.”

These words of a local childcare professional typify the growth that occurred recently as twenty-four Houston-area teachers completed a yearlong residency in the School Literacy and Culture Project, a teacher development program of Rice University’s Center for Education. The preschool teachers, who came together as part of the HELP for Kids early learning grant, reflected a cross-section of our city’s teaching community – English and Spanish speakers from public school classrooms, day care centers, and family day homes in the Gulfton area. Something amazing occurred as these women from diverse backgrounds shared stories of their teaching challenges and grew together into a community of learners.



Teachers from the HELP for Kids program explored books written in unfamiliar foreign languages in order to understand the types of things young children must figure out about the printed word as they begin to read. Pictured are Rosa Samuels and Doris Mejia, family daycare home providers; Sanjuana Frank, Collaboratives for Children; and Ana Vasquez, Sutton Elementary Head Start.

Teacher-educators with the Center for Education’s School Literacy and Culture Project have spent years expanding and refining their early literacy work with teachers, but participation in the recent HELP for Kids grant challenged seminar leaders and mentors to reframe the work beyond the established

early-literacy curriculum. How does any organization meet the needs of teachers from incredibly different backgrounds, with different budgetary constraints, with different home languages? The secret lies in respecting these very differences. Seminar leaders learned to listen to the questions of the teachers and to craft interactive learning experiences for adults around topics of interest. Working in the teachers’ classrooms, mentors utilized a list of professional development goals, but encouraged teacher autonomy by asking participants to help determine the course of topics discussed. Teachers also helped decide which classroom materials they would receive.

Perhaps most exciting, however, was the development of a seminar that was, at times, truly bilingual in nature. For example, early in the seminar series, participating teachers listened as Debbie Paz, bilingual teacher with Spring Branch ISD and seminar leader for the School Literacy and Culture Project, read a story in Spanish, then asked for volunteers to help act the story out through simple pantomime. Spanish speakers raised their hands and jumped up to join in the fun, but the English-speaking teachers hesitated, somewhat uncertain as to exactly

what was expected of them. The antics of fellow teachers provided clues as to what the book was about, but Spanish words left them somewhat confused. Through this experience, native English speakers experienced firsthand how the gestures of dramatization provide a powerful comprehension tool when the words of a story make little sense. This activity was just one example of how English-speaking teachers were encouraged to experience life as second-language learners.

Interactive activities were not the only portion of the seminar conducted in both English and Spanish. When teachers created materials for their classrooms, examples were provided in both languages. Some small group discussions were held entirely in English or in Spanish to make communication easy for everyone. Other discussions, however, were designed to promote a sense of community and involved periods of speaking and listening as words of fellow teachers were translated for the entire group.

(continued, next page)



Lori Duron from Gabriel Mistral Early Learning Center writes down a student’s own story as he dictates.



The theme of learning from each other, mentioned in the words of the teacher at the onset of the article, became the driving force of this collaborative work.

- **Teachers** experienced firsthand how mutual respect and listening could be used to create an environment in which academic and socio-emotional growth occur simultaneously. As they grew professionally, teachers learned how to listen to children and individualize the instruction in their classrooms. They incorporated intentional early literacy skills (things like alphabet sorts, name curriculum, and children’s dictated stories) into their classrooms, but they also learned how to use everyday conversations with children to scaffold vocabulary development.
- **Children** developed increasing command of oral language, knowledge of letters and letter sounds, and a love of good children’s literature. They became thinkers, bringing intellectual curiosity to their growing awareness of the written word.
- The learning became truly cyclical, then, as **teacher educators** with the School Literacy and Culture Project grew from the experience and learned how to bring differentiated instruction to both professional development and to early-childhood classrooms. Why is this important, one might ask? After reviewing hundreds of studies in the field of early literacy, the National Reading Panel recently listed *differentiated instruction in professional development and in classrooms* as a critical component of programs to meet the diverse needs of English-language learners.

Throughout the HELP grant, children learned from teachers, but teachers also discovered how to listen to children and individualize the teaching process. Teachers learned from seminar leaders and mentors, and the presenters and mentors also learned from the women they were teaching. Isn’t this what education at its best can and should be about – a process of growing and learning together, not just about academic skills, but about life lessons such as caring and respect?



At the HELP for Kids Grant Ending Celebration, teachers shared professional portfolios highlighting their growth as early-literacy educators. Above: Carmen Martinez (SLC mentor) and Alejandra Perez (Gabriele Mistral ELC).

The School Literacy and Culture Project would like to thank our partners in the HELP for Kids Early Learning Opportunities Grant without whom this work would not have been possible – Collaborative for Children and HISD’s Gabriele Mistral Early Learning Center.



Cheryl Pete (Baby Angels Academy) helps a young learner discover how to use alphabet tiles to spell familiar words.



Students become comfortable identifying letters.

The School Literacy and Culture Project has operated as an outreach program of Rice University for over 15 years, working with early-childhood teachers throughout Houston and the surrounding community. SLC uses a combination of professional readings, seminars, and classroom mentoring to help teachers create quality early literacy environments for our city’s youngest learners. An intensive 2005-2006 study confirmed the efficacy of the approach using a standardized pre- and post-test design.

At the heart of the project’s work is the story dictation and dramatization work of Vivian Paley, the first teacher to be honored with a MacArthur Genius award. Paley has long advocated the use of children’s own dictated stories as the foundation of early literacy development.

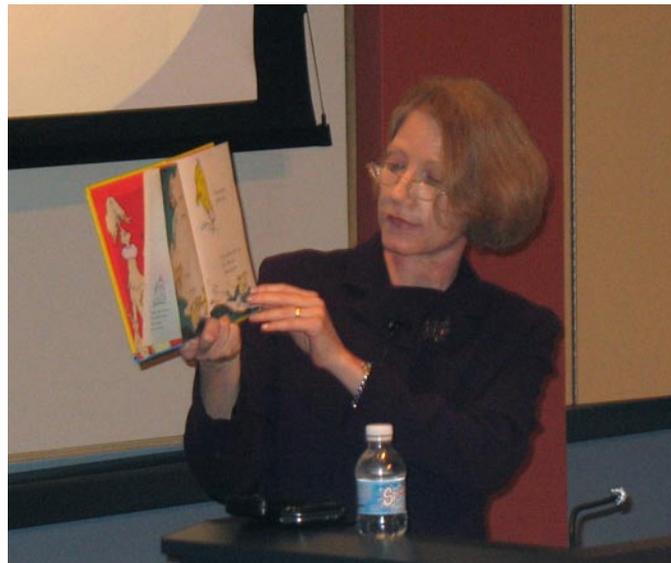
When children see their own words written down by the teacher and acted out by fellow students, they learn not only about ABCs and punctuation, they learn that what they have to say is valued – that they themselves are valued. Preschool children find that reading and writing are more than just a series of worksheets to be filled out or letter sound activities to be completed. They discover within themselves a writer’s voice – a reason to share with the group and communicate their interests, wonderings, and fears.

To find out how you can participate see p.11.



Choices We Make in Early Literacy Learning: Well Informed or Not?

The following is an excerpt from the keynote address given by Patsy Cooper, Ph.D. (right), founding director of the School Literacy and Culture Project, at our annual January Mini-Conference for Teachers and Parents, held January 13, 2007, on the Rice campus. Each year, approximately 200 educators come together to learn more about the ways young children learn, through lectures, discussions, and workshops on various aspects of literacy learning.



What difference do the choices we make around early literacy instruction make to young children's early literacy learning? The answer to this question seems simple: A *LOT* of difference.

A better question is: What particular difference do our particular choices make? And in addition, What informs the choices? Is it content knowledge only? What about habit? What role does the greater school culture play? The children's home culture? The premise of the conference theme is that what young children learn about literacy depends as much as what lies behind our choices as it does on the choices themselves.

Take, for example, the book you choose for Story Time or Read Aloud. You could ask: What particular difference does reading Dr. Seuss' *One Fish, Two Fish, Red Fish, Blue Fish* make to, say, a group of three-year-olds? Looking only at content knowledge, the short answer is that it promotes phonemic awareness (all those rhymes). And, because you are a very pleasant teacher -- who is really great at read-alouds and who, by the way, can manage any group of three-year-olds in a circle even if one got a new baby brother last night -- the bonus is that your reading will also promote a child's positive attitude toward books.

One Fish, Two Fish, Red Fish, Blue Fish will undoubtedly impact young children's cognitive development as a reader, including their pre-decoding skills, like print awareness and, for some three-year-olds, letter recognition. It might also build word recognition, and maybe the beginnings of a sight vocabulary.

The fact is, what I have just described is but half an answer to the question of what justifies our choices in early literacy, the content half, and in some sense, the technical half. But early literacy instruction is never informed by content knowledge only. The craft of teaching requires nothing less than what we know about content, but also about child development, and about life in classrooms and large groups. Into this mix, we must add our interpersonal skills, as well as our professional obligations to be the best teachers we can. Finally, we must add our own beliefs and values about who children and their families are and what we expect of them.

If craft informs how we teach content, then what informs craft? I've already suggested three areas: Habit. School culture. Home culture, including the teacher's as well as the children's. Habit is that which we do automatically in the classroom. School culture is determined by the norms that permeate teaching in a particular school. Finally, home culture is determined by the system of beliefs and values that teachers and children bring to school about school and each other.

Turning to habits, let us consider an example of craft that impacts young children's early literacy learning fairly dramatically. All teachers know that young children's oral language development is a critical factor in learning to read and write. What they don't always realize is their role in promoting it beyond the curriculum. A list of oral language habits a teacher might practice that would positively impact young children's early literacy learning includes:

expanding on what children say or observe, answering all questions asked, initiating conversation, commenting on what children are doing, waiting as children try to express themselves, modeling 'school' language.

How does craft enter into our engagement with school culture? The answer lies in our view of ourselves as professionals. Do we take responsibility for learning as much as we can about curriculum or other issues that drive school culture? Do we believe in our own efficacy or do we wait to be told if we are good teachers?

Finally, we come to culture. Teachers often talk about the impact of children's home backgrounds on their learning. But teachers must also reflect on their own backgrounds, or the choices they make will be tainted. If teachers are to avoid bias in choices they make in the classroom, they must develop cultural norms that include tolerance and the belief that all children can learn.

To end where we began: What difference do the choices we make around early literacy instruction make to young children's early literacy learning? The answer is simple. It depends on what informs our choices. For it's rarely the choice that makes teaching interesting. It's what lies behind it. And it's our job to find out.

To read more from Dr. Cooper on how habit, craft, and culture together inform teachers' choices in early literacy instruction see <http://centerforeducation.rice.edu/SLC/pmc07.htm>



Innovative Teacher Visits Rice Campus, Meets with Area Educators

Rafe Esquith, teacher in Los Angeles’s inner-city Hobart Elementary and author of *Teach Like Your Hair’s on Fire*, visited the Rice campus in February to share his methods with local teachers. His visit was co-sponsored by the Center for Education and Brazos Bookstore. Esquith brought with him eight students to demonstrate part of their Shakespeare performance, including long recitations and original and complex music compositions based on the Bard’s plays. Rafe Esquith shared some of his secrets for effective teaching. His innovative blend of practical application to teach curricular goals mixed with high expectations not only helps his students learn more than their peers, but it has them spending extra hours at school and living the class motto, “be nice, work hard.”

.....
Most classrooms are run by fear. Fear is not a great way to teach. Replace it with trust.
—Rafe Esquith
.....

Would you like to be notified of upcoming events such as this one?

To add your name to the Center’s mailing and email list for future events, please visit the Center’s website:
<http://centerforeducation.rice.edu>
or call 713-348-5145.



We Are All Neighbors!



“We Are All Neighbors,” an initiative created by Andrea White, wife of Houston’s mayor Bill White, to bring Houstonians together through the sharing of cultural understandings, showcased the work of the Center’s School Literacy and Culture Project in September. The “Neighbors” event brought civic leaders to Ninfa Laurenzo Early Childhood Learning Center to see first hand Rice’s work in early-literacy professional development in Houston classrooms. Attendees observed a demonstration of children’s story dictation and dramatization and met SLC’s program directors. Principals and teachers provided testimonials of ways their professional work changed by the skills they learned from the Classroom Storytelling program. “Neighbors” also toured the school and learned about its success in working with English-language learners and students from low-income families.

Pictured above is four-year old Karen Cervantes, as she dictates an original story to SLC literacy consultant Margaret Immel. Listening attentively are Connie Floyd, director of the School Literacy and Culture Project; Andrea White; Carmen Regina, principal of Laurenzo ECC; and Ping Sun, wife of Rice president David Leebron.

Thanks to Our Donors!

Without you the Center could not fulfill its mission to teachers, children, and schools.

Major Donors and Grants:

- Anadarko Petroleum
- Annenberg Foundation
- The Brown Foundation
- Deloitte & Touche LLP
- Susie and Joseph Dilg
- Early Learning Opportunities
- EOG Resources
- Fondren Foundation
- George Foundation
- Gordon & Mary Cain Foundation
- Norman Hackerman
- Hank & Demaris Hudspeth
- The Higher Education Coordinating Board,
- Teacher Quality Grants

- Houston Annenberg Challenge
- Houston Social Ventures Partners
- Mary & David Klein
- Neal & Joni Lane
- Locke Liddell & Sapp LLP
- National Academy of Education/ The Spencer Foundation
- National Science Foundation
- Maconda Brown O’Connor
- Powell Foundation
- Samuels Foundation
- Ed & Kathryn Segner
- Shell Oil Co. Foundation
- Simmons Foundation
- Mr. & Mrs. Stephen Snider
- Stanford University
- Texas Regional Collaboratives
- Vinson & Elkins LLP
- Janet & Pieter Vrancken



School Science and Technology Hosts MATS Annual Conference

Science Teachers Come Together to Learn New Science and Science Teaching Methods



Hands-on science learning is one of the benefits of conferences such as MATS. Here Jodie Flores (5th grade, Port Houston Elementary), Bella Maderazo (Burbank Middle School), and Joy Cole (Janowski Elementary) discover new lessons for their students. (Photo by Cristina Cruz-Wiley)

.....

"I enjoy attending the MATS conference because it reminds me that I am not alone out there. MATS is like a breath of fresh air and reminds you why you started teaching to begin with."

— John Gray,
Jersey Village High School
Cy-Fair ISD

.....

COLLEEN LABORDE, PROGRAM COORDINATOR,
SCHOOL SCIENCE AND TECHNOLOGY

The Metropolitan Association for Teachers of Science (MATS) held its 2007 Annual Conference at Rice University on February 24th. Over 300 participants from Freeport to Huntsville attended, making this the largest MATS conference ever. MATS was formed in 1976, with goals of advancing K-12 science teaching in the Greater Houston area, developing a K-12 science teacher community of learners, and providing resources to K-12 science teachers.

This year's conference was an opportunity for new kindergarten-through-twelfth-grade science teachers to make a presentation at a professional meeting, often for the first time, according to Dr. Wallace Dominey, Director of Science Outreach for Rice's Center for Education and President of MATS. He added, "Hosting the MATS meeting at Rice is in keeping with Rice University President David Leebron's theme of engaging Houston and offers the university the opportunity to showcase our campus."

The conference kicked off with a welcome to the university from Dr. Mary McIntire, Dean of the Glasscock School of Continuing Studies and from Linda McNeil, Co-Director of the Center for Education. Dr. Gerald Dickens, Rice Associate Professor of Earth Science, served as the conference's keynote speaker. Dickens discussed "Global Climate Change: Insights from Drilling on the North Pole" and presented his research findings demonstrating an ancient freshwater lake at the North Pole.

In concurrent sessions that followed, teachers presented lessons, programs, and ideas to improve the quality of science education in public schools. Topics ranged from "How to More Effectively Teach Science to Spanish-Speaking High School Students" to "An Introduction to Human Genetics." The all-day conference also included breakfast, lunch, vendor exhibits, a teacher share-a-thon designed to let teachers share new lessons and experiences, a mobile digital planetarium

dome provided by Rice professor Dr. Pat Reiff, and an ice cream social.

MATS conference sponsors included BP America, Lyondell, Texas Regional Collaboratives for Excellence in Science Teaching, Sargent Welch: Science Kit, Ward's, Rice University's AP Summer Institute in the Glasscock School of Continuing Studies, Rice Space Institute, The Waymire Group, Gulf Coast Consortia Interdisciplinary Bioscience Research and Training, Texas Educational Tools, and Rice's Center for Education.

By all counts, the event was a huge success thanks to School Science & Technology and Center staff who organized the conference, assisted by MATS officers, President Wallace Dominey (Rice University Center for Education), Vice President Lisa Felske (Harris County Department of Education), Treasurer Karla Auzenne (Houston ISD), Secretary Lisa Webber (Houston ISD), and many other volunteers.



Pipettes to Go! High School Teachers in the Rice pH Model Science Lab Get Creative

ANNE DOUGLAS, ASSOCIATE DIRECTOR, pH LAB

The Rice pH Science Lab at Lee High School is a year-long residency program in which high school teachers spend a year examining new ways to teach science while at the same time working to increase their science knowledge. These teachers spend half their time working on their own learning and the other half applying their new knowledge by teaching either IPC (Integrated Physics and Chemistry) or Biology.



Part of the curriculum this year has been for the resident teachers to create and present workshops for other teachers in which they share new ideas for creative lessons. In this workshop *Pipettes to Go!* twenty-seven teachers (pictured) from across HISD explored lessons about the periodic table, new ways to teach chemical equations, and experiments about chemical change and the conservation of mass. As the day progressed, participants made kits of the chemicals used in each lesson to take back to their classrooms with enough materials to teach these lessons to their classes. The teachers received copies of the lessons to share with their colleagues. This was one of three workshops developed and presented this year by pH Lab residents: Carla Hoyer, Waltrip High School; Roderick Jones, Madison High School; Lori Dunklin, Contemporary Learning Center; Donna Ahrens, Austin High School.



Come join us!

The Center for Education would love to work with you and your school!

If you are a teacher or principal, we have programs for you and your school.

- We offer programs that boost the literacy skills of young learners, even those who need extra help.
- We lead workshops to help teachers explore how race and culture effect their teaching strategies and how to maximize their relationships with colleagues.
- We have enrichment programs for science teachers that were deemed among the best in the nation by the National Science Foundation.
- We organize writing workshops for teachers who want to improve their own writing in a small group which, in turn, energizes and strengthens the writing of their students.

If you are a parent, we offer lectures and workshops that will help you understand issues that affect your children's education.

If you are a policymaker, we can provide data in a wide range of educational issues, and our conferences help you connect the difficult issues of the day with the underlying forces that shape the way people respond.

We invite you to take part in any of our programs, or work with us to create special programs to address the needs of your particular school.

For additional information, please contact us by calling 713-348-5145 or visit our website:

<http://centerforeducation.rice.edu>

Centerpiece is edited by Laurie Hammons.

Don't Miss Our . . .

Upcoming Events

Thursday, April 26: School Writing Project Spring Readings — Elementary school students and teachers read their original poetry and prose. Farnsworth Pavilion, 4:00 p.m.

Tuesday, May 8: School Writing Project Spring Readings — Middle and high school students and teachers read their original poetry and prose. Farnsworth Pavilion, 4:00 p.m.

Wednesday, May 9: End of Year Celebration, School Literacy and Culture Project — Teacher participants share their experiences from the year: favorite activities, anthologies of their work, examples of personal growth and that of their students. Visitors welcome to learn about this program. For information, call 713-348-5333.

Tuesday, May 15: Vivian Paley Scholarship Luncheon — The 3rd annual luncheon honoring Vivian Paley supports teacher scholarships in a year-long residency with the School Literacy and Culture Project. Patsy Cooper, keynote speaker. For information, or to purchase a table, call 713-348-5333.

Tuesday, May 15: Lecture for Parents — Patsy Cooper discusses what parents need to know about the changing face of early-childhood education. Farnsworth Pavilion, 4:00 to 6:00 p.m.

Wednesday, May 16: Honoring the Teachers Event — Hosted by Rice University, Center for Education, School Science & Technology Program in honor of the first cohort of Rice University/Houston ISD Elementary Model Science Lab Interns with Mayor Bill White as the keynote speaker.

Thursday, May 17: Last day of Rice/HISD Elementary Model Science Lab Intern Program: Year 1, a partnership of Houston ISD and Rice University, Center for Education, School Science & Technology Program. This innovative program provided 90 HISD elementary teachers of science with a full day of science instruction each week throughout the academic year. Topics include science content, pedagogy, and leadership training. For more information call 713-348-3088.

June 11 - 29: Summer Creative Writing Workshops — Now at two locations! Annunciation Orthodox School (3600 Yoakum Blvd.) and Aldine Academy (7007 Fallbrook Dr.) Students from kindergarten through high school grow as writers in classes with small student-to-teacher ratios. Co-sponsored with Writers in the Schools. Get more information and register online at: www.witshouston.org.

July 9-20, 2007: Summer Science Training Institute for Aldine ISD and Spring Branch ISD elementary science teachers run by the School Science & Technology Program. Forty grades 3-5 teachers explore science content and pedagogy during the two-week summer institute funded by the Teacher Quality Grants for Higher Education Program. A unique new online elementary science curriculum developed by the Center's School Science & Technology Program will also be piloted during the institute. For more information call 713-348-3088.

July 23 - 27: Summer Institute on Reading, Writing, and Cultural Connections — In this week-long institute, teachers of young children reframe their reading and writing practices in light of new research trends. For more information, see our website: centerforeducation.rice.edu/SLC or call 713-348-5333.



Margaret Immel, mentor for the School Literacy and Culture Project, carefully listens as a student creates a story that is personally meaningful.



Recording and acting out students' stories not only intensifies engagement, it has been linked to sharp increases in reading and grammar skills.



Center for Education
Rice University, MS 147
P. O. Box 1892
Houston, Texas 77251-1892

NON-PROFIT ORG.
U.S. POSTAGE
PAID
HOUSTON, TEXAS
PERMIT NO. 7549