

# Catalyst

SPRING 2012



“The biggest ah-ha has been the range of **INNOVATION**.”

“We have really been able to **PUSH THE ENVELOPE** technically.”

“If you want **TO TEACH STUDENTS**, you must reach them.”

“Our goal was to get folks together to discuss **BEST PRACTICES**.”

“Teachers have the **POWER TO CHANGE** the way students learn science.”

“People think and learn together, and their **SOCIAL INTERACTIONS** create conditions for change.”

“Systemic change in teaching and learning.”

“Professional development should be about making **SYSTEMIC CHANGE** in teaching and learning.”

Focus on  
Professional  
Development

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Photo by Neil Michel/Axiom Photography

Dean Harold Levine

# Focusing on Professional Development

**“In acknowledging the professionalism of all teachers, all of our programs put teachers at the center of the enterprise.”**

**E**ffective public schools are vital to our nation’s future. On this point, virtually all of us agree. There is widespread disagreement, however, on what makes schools effective. Recently policymakers, researchers and schools of education have developed a laser focus on teacher quality.

In the midst of the battles over how to achieve and measure high quality teaching, the UC Davis School of Education has quietly built a stellar teacher preparation program and a dynamic suite of professional development offerings for practicing teachers. In this issue, we feature the School’s deeply engaging, innovative and effective professional development programs for teachers.

When we founded the School 10 years ago, one of our goals was to create a professional home for teachers. Over the last decade, we have built on the excellent work stemming from the math, writing and science subject matter projects housed in our Center for Cooperative Research and Extension

Services for Schools (CRESS), which was founded 20 years ago. (The California Subject Matter Project is a network of nine discipline-based statewide projects that support ongoing quality professional development.) Then, and now, we work to partner with teachers in their quest to improve their own practice. At the same time, we have a strong mandate to contribute to knowledge about best practices.

In acknowledging the professionalism of teachers, all of our programs put teachers at the center of the enterprise. For instance, our subject matter projects are run by teachers and expand their reach through development of teacher leaders who will in turn reach out to other teachers.

One of our recent signature efforts, the Pacific Coast Teacher Innovation Network (PacTIN) provides teacher teams with small grants for planning their own professional development and for translating new knowledge and skills into classroom practice and student learning in the classroom.

Our focus on STEM (science, technology, engineering, and math) education also stresses the importance of empowering teachers to think like scientists, to learn from and with one another to deepen their content knowledge, and to engage students in meaningful activities that increase their understanding of STEM and inspire them to consider careers in the wide spectrum of STEM disciplines. At all times, teachers define what they need and what their students need.

Most importantly, our professional development programs work collaboratively with teachers in schools and districts to build communities of practice and to support systemic, whole school change. Context is critically important, and teachers have a profound ability to shape the context of learning in their classrooms and broader learning communities. Our approach eschews the notion that professional development can happen in an afternoon or out of a box. Our approach is long-term, teacher-driven and, above all, effective. **■**

**Professional**

**Noun:** • experienced; knowledgeable  
• expert  
• skilled or trained

**Development**

**Noun:** • growth; progress  
• expansion; evolution  
• maturing

## ARTHUR BEAUCHAMP: Long-Time Science Educator Helps Fellow Teachers Prepare for Future

By Donna Justice

“It’s all Pam Castori’s fault,” chuckled Arthur Beauchamp when asked about his long-time role as director of the Sacramento Area Science Project (SASP).

In the mid-1990s, Beauchamp had been teaching science for about a dozen years, but he was “dissatisfied” with his results. “I knew there had to be a better way to do things, but I didn’t know how.”

Beauchamp had met Castori, the director of what was then called the California Science Project - Sacramento. Castori was a respected science educator and Beauchamp knew he had much to learn from her and the project. He applied for a CRESS teacher research grant to conduct a two-year study with 10 other teachers on how specific methodologies influence students’ attitudes about science.

During the study, Beauchamp stayed in close contact with SASP and a few years later Castori asked him if he’d be interested in directing the project. For five years, he taught three periods of high school chemistry and environmental sciences while serving as director. In 2002, Beauchamp took over the reigns of SASP full-time. For a decade, he has been on the leading edge of best practices in science education, always pushing himself and the teachers he works with to improve instruction and outcomes for students.

“It is a very exciting time to be working in the field of science education right now,” said Beauchamp. “We are right at the pinnacle of some incredible potentials.”

For the past 15 to 20 years, according to Beauchamp, there has been a growing body of research in education and the cognitive and social sciences that provides a better understanding of how people learn. This shift is affecting how educators are thinking about methods for K-12 science instruction and new science standards. Beauchamp, along with School of Education faculty Cindy Passmore and Rick Pomeroy, has played a leadership role in helping to shape the emerging Next Generation of National Science Standards by serving on California’s review committee, and Beauchamp is also serving on the California Superintendent of Education’s STEM Task Force.

“There is a focus now on helping students learn to think like scientists,” said Beauchamp. “Scientists inquire, they ask questions, and their ideas change over time. The new standards acknowledge this and provide guidance for doing science instruction in a fundamentally different way.”

One of Beauchamp’s areas of expertise is the use of model-based reasoning in the teaching and learning of science. Over



**“There is a focus now on helping students learn to think like scientists.”**

– Arthur Beauchamp

the last four years, Beauchamp and Passmore, an associate professor of education, have implemented an intensive professional development initiative funded by the National Science Foundation. The Innovations in Science Instruction through Modeling (ISIM) initiative guided two cohorts of middle and high school science teachers through two years each of training, lesson planning, and implementation of model-based reasoning in the classroom. Model-based reasoning employs methods that focus on studying scientific phenomena in order to learn science, rather than focus on lectures and memorization of facts.

“Students whose teachers use model-based reasoning view their teachers as co-explorers rather than the people providing answers,” said Beauchamp. “There is an emphasis on the exploration of ideas and dialogue to increase understanding.”

Beauchamp’s priority has always been to ensure that teachers are reaching their students through effective instruction and that students learn that science can be engaging, challenging and fulfilling. His uncommonly broad and deep experience as a teacher of many different science disciplines, from health and biology to physical and earth sciences, at virtually every grade level makes him a particularly effective teacher of teachers.

“My breadth of instruction has given me a great advantage going into classrooms and talking to teachers,” said Beauchamp. 📖

## ALUMNI COUNCIL Update

By Sandi Redenbach, Chair

I am excited to share that the School of Education is preparing for its 10th anniversary celebrations over the next academic year. Although we have been preparing teachers for the classroom since 1918, it wasn't until July 18, 2002 that we were approved by the University of California Regents as a School of Education.

In that time we have developed a full set of programs to inspire students to become educators who will effect change at every level in the education system and make lasting improvements for students, families and communities. In addition to our Teacher Credential, this includes a Master of Arts (MA), Doctor of Education (EdD), and Doctor of Philosophy (PhD). We have much to be proud of as we witness our School's growth and progress. All of that enriches and adds value to our alumni degrees.

With more than 7,000 UC Davis education alumni across the state and around the globe, the Alumni Council was formed in order to engage and bring alumni back into our School family. We strive to keep our alumni up-to-date, not only with what is new and exciting at the School of Education, but also to insure that alumni have the opportunity to connect and reconnect.

One significant way we provide the chance for alumni to

connect is through the School's annual Honoring Educators awards ceremony. Last month, more than 100 alumni, faculty, staff, students and friends of the School gathered for this awards ceremony to honor educators who have distinguished themselves in the profession.

The Alumni Council was pleased to see all of the fantastic nominees and had a difficult time selecting just one for each category. These alumni have distinguished themselves in a variety of ways since earning their teaching credentials and degrees at UC Davis. Our Rising Star honoree, José Bermudez, is inspiring students locally in Woodland, Calif., at Tafoya Elementary School as a vice principal. Lisa William-White, an associate professor in the Bilingual/Multicultural Education Department at Sacramento State University, was selected as our Distinguished Alumna. She continues to stand out as a scholar, practitioner and student advocate in our community.

We welcome your involvement and your ideas. If you are interested in being active in Alumni Council activities or the 10th Anniversary celebration planning, please contact me at (530) 756-8678 or [spopcorn@espp.org](mailto:spopcorn@espp.org).



Sandi Redenbach

Photo by TJ Ushing/UC Davis

## Honoring Educators & Distinguished Alumni Awards

On May 15, 2012, the School of Education hosted its fifth annual Honoring Educators celebration to honor the contributions and dedication of all educators. Dean Harold Levine and Alumni Council Chair Sandi Redenbach also presented the School's 2012 Distinguished Alumni Award and Rising Star Award. The recipients and finalists all exemplify "doing what matters" in education.



### 2012 Distinguished Alumni Award Finalists

Linda Aceves (BA '74, Credential '75, Bilingual Credential '77)  
Cristina Buss (BS '06, Credential '09, MA '10)  
Linda A. Dillon (BA '84, Credential '85)  
Paula Joyce (BA '74, Credential '75)  
Samantha Maunder (BA '08, Credential '10, MA '11)  
Dan Meyer (BS '03, Credential '04, MA '05)  
Eric Morgan (Credential '05, MA '06)  
Raymond Orque (BA '08, Credential '09, MA '11)

### 2012 Alumni Awards Selection Committee

Patrick Bohman (Credential '07, MA '08)  
Roy Engoron (BA '62, MA '65, Credential '66)  
Michele Fortes (MA '99, PhD '01)  
Judy MacDonald (BA '92)  
Sandi Redenbach (BA '72, Credential '73)  
Sharon Rose (BS '60, Credential '61)

## 2012 Distinguished Alumna

### Lisa William-White (Credential '99, PhD '03)

*“Lisa William-White entered the field of education because of her belief that she has been afforded an opportunity and the privilege to help effect change in the academic lives of the poor and culturally/linguistically diverse populations in K-16 education.” – Nominator*

Engaged in urban education since 1991, Lisa William-White has distinguished herself as a scholar-practitioner and student advocate. A full-time associate professor in the Bilingual/Multicultural Education Department at Sacramento State University, William-White also holds an associate professor position at San Joaquin Delta College in Stockton to actively maintain direct contact with students from diverse academic, cultural, linguistic and socioeconomic backgrounds.

In 2006, as co-adviser for Sacramento State's Graduate Education Student Association (GESA), William-White and her GESA students received the International Society for Exploring Teaching and Learning (ISETL) Distinguished Fellows Outstanding Presentation Award for presenting a culturally relevant mentorship model to support first-generation graduate students.

During her doctoral studies at UC Davis, William-White taught English and writing at Sacramento High School while researching how the high-achieving African American students at that school negotiated their social and academic identities. Following her 1999 Teacher of the Year nomination in the Sacramento City Unified School District, William-White was the first teacher to be recognized as KXTV News10 Teacher of the Month.



## 2012 Rising Star Alumnus

### José Bermudez (Credential '06, MA '07)

*“José Bermudez’s ability to connect with children has allowed him to impact their lives in a short time. Students count on him as a role model and as an advisor and do not hesitate to reach out to him when they need someone. His rapid rise to being an administrator is indicative of his talent and drive to succeed.” – Nominator*

Assistant Principal José Bermudez has quickly endeared himself to the students, staff and families of Ramon S. Tafoya Elementary School in Woodland, Calif. Working tirelessly on behalf of all students, he is highly respected as a passionate educator in dual immersion communities.

A native of Jalisco, Mexico, Bermudez and his family moved to Winters, Calif., when he was only seven years old. Serving as a tutor at Harkness Elementary School while attending Sacramento State University revealed his true love for teaching. Earning his teaching credential and master's degree at UC Davis, Bermudez credits lecturer/supervisor Michele Fortes as a positive influence while he learned to become a more effective educator in multicultural classrooms. As an elementary school teacher, he taught dual immersion classes in Winters, Fairfield and Davis before accepting the Woodland administrative promotion in 2011.

Parents, colleagues and administrators praise Bermudez's deep devotion to helping everyone succeed. He shares details of his simple beginnings with both exceptional learners and struggling students alike, and they are inspired to know they can achieve anything with hard work, planning and perseverance.



## Alumni UPDATES



**Luciana de Oliveira**  
(PhD '06)

A mere six years into her professorship at the College of Education at Purdue University, where she has helped shape the teacher credential program focused on English learners, Luciana de Oliveira has received an Early Career Award from the American Educational

Research Association for her work in bilingual education.

“Luciana has always been in love with language, how teachers use it, and how they reflect on its use,” said Associate Professor Steve Athanases, de Oliveira’s mentor while she worked on her doctorate. Athanases nominated de Oliveira for the award. “Since the completion of her PhD, Luciana has had a stellar record of research and publication, teaching service, and grant writing.”

De Oliveira also released a book in 2011, titled *Knowing and Writing School History*, building on her dissertation research and work she did with the UC Davis History Project.

De Oliveira served as one of two keynote speakers at the School’s Academic Literacy Summit this year, taking teachers through the structure and purpose of the new Common Core Standards for language arts. Her scholarship focuses on three strands: 1) the teaching and learning of English learners in the content areas; 2) teacher education for English learners, advocacy, and social justice; and 3) non-native English-speaking teachers.

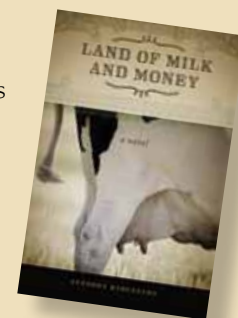
De Oliveira graduated from São Paulo State University in Brazil and earned her teaching credential there. She began teaching at a private language school for adults and children when she was just 18.



**Anthony Barcellos** (PhD '05)

Anthony Barcellos has written his first novel, *Land of Milk and Money* (Tagus Press), due out in July. The story, about Portuguese immigrants who settle in California’s Central Valley, draws from his experiences growing up on his grandfather’s

dairy farm. For more information, visit [www.landofmilkandmoney.com](http://www.landofmilkandmoney.com). Barcellos is chair of the mathematics department at American River College in Sacramento.



## In Memoriam

### Anne Gibbs

(BA '69, Credential '70, MA '86)

Davis elementary school teacher Anne Gibbs passed away last December at age 63. As a UC Davis undergraduate, she was part of a folk trio—Unky, Phoebe and Fatty Anne—that performed at campus events and, during one summer, in Nashville, Tenn. A reading specialist at Pioneer Elementary School, Gibbs wrote and directed children’s musicals and for 15 years co-directed the school talent show with her spouse, fellow teacher Bev Benedum.



### Lawrence Kempker

(Credential '48)

Lawrence Kempker died of natural causes in Carmichael at age 90. A World War II Army Air Corps veteran, he worked in the food industry and later as a driver’s license examiner for the Department of Motor Vehicles in San Francisco and Sacramento. He retired as a California driver improvement analyst.



## GIVING opportunities

**School of Education Annual Fund** – Join fellow alumni and friends in supporting student scholarships through the Annual Fund.

For more information, go to [education.ucdavis.edu/giving](http://education.ucdavis.edu/giving).



## Peter Mundy Receives \$1 Million Grant To Study AUTISM'S IMPACT ON EDUCATION

The U.S. Department of Education's Institute of Education Sciences (IES) has awarded a four-year \$1 million grant to School of Education Professor **Peter Mundy**.

Mundy will conduct a longitudinal study to identify the factors that impede or facilitate learning in elementary and secondary students with autism spectrum disorders (ASD). Part of the study will employ measures from Mundy's Social Attention Virtual Reality Laboratory to better understand the similarities and differences of how attention problems

impact learning and academic development in children with ASD compared to children with Attention Deficit Hyperactivity Disorders. IES will provide UC Davis with a total of \$1,082,130 direct costs over the four years of this project. Mundy's lab is located in the UC Davis Center for Mind and Brain. [4](#)

*Mundy is also Director of Educational Research at the UC Davis MIND Institute.*

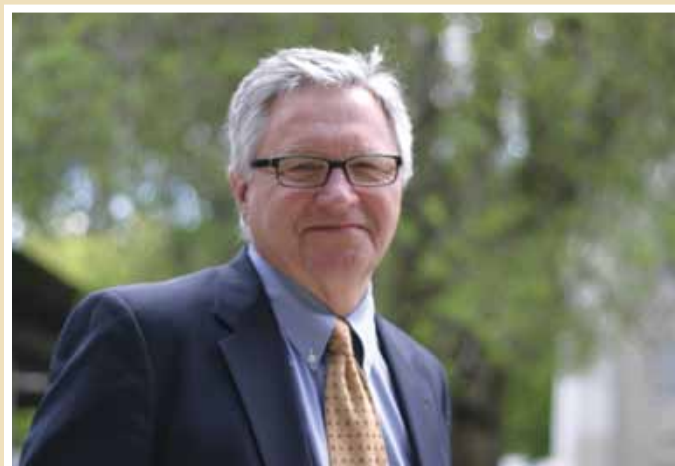
## Education Professors Lead POLICY WATCH SEMINARS

As part of its annual Policy Watch Seminar series, the UC Davis Institute of Governmental Affairs invited School of Education faculty to share their research findings and views in education policy.

In his talk “Reframing Policy and Practice to Close the Achievement Gap,” Professor **Thomas Timar** discussed how little the achievement gap has changed in spite of constant reform efforts and billions of dollars spent in the past 40 years. Policymakers have ignored significant out-of-school factors—poverty, crime, joblessness, abuse, and disparities in school readiness—that influence student achievement, he said.

“Schools can’t do it alone,” said Timar. “But a broader reform agenda would entail major reconceptualization of schools as youth-serving agencies rather than the current focus on producing test scores. Policy has not been able to create the critical infrastructure and the social capital needed to build effective education systems.”

More programs, policies, and funding streams are not the answer since there is no “right set” of interventions. Timar proposed a new policy framework for education—a view



Thomas Timar

of schools as shaped from the inside, not outside, through collaborative civic and professional networks and with policy flowing from the bottom up. In the long term, according to Timar, this involves investing in economic development and rebuilding the urban middle class.



Michal Kurlaender

Associate Professor **Michal Kurlaender**, a national leader in research about college access and degree completion, presented her seminar “Ready or Not? California’s Early Assessment Program and the Transition to College.”

Kurlaender’s recent research includes a statewide evaluation of the California Early Assessment Program (EAP), a voluntary assessment that provides students at the end of their 11th grade year information about their academic readiness for the California State University (CSU) and community colleges.

According to the evaluation results, Kurlaender found that even adjusting for a host of individual characteristics, EAP participation in English leads to a modest reduction of CSU freshmen requiring remediation. She is still investigating the math effects.

In terms of school effects, Kurlaender found that high schools with all levels of EAP participation see modest gains in test scores, accountability measures, and college-level outcomes following the introduction of the program. However, higher levels of EAP participation at the school level are associated with higher gains in test scores and school accountability measures.

Kurlaender next plans to examine how 12th grade course choices may have been influenced by the EAP and the potentially different EAP effects by individual characteristics.

### GIVING opportunities

#### Gift to the Education Faculty Fund –

Support the innovative research and teaching of education faculty that benefits our knowledge and practice in the classroom and beyond. For more information, go to [giving.ucdavis.edu/schooled/education\\_faculty](http://giving.ucdavis.edu/schooled/education_faculty).



## Visiting Scholar from CHINA Studies Creativity in Higher Education

**Y**amin Liu, associate professor of education and director of the Center for Creativity and Educational Innovation at Wuhan University in China, spent the 2011-2012 academic year at UC Davis as a visiting scholar in the School of Education, where she worked with Professor **Cristina González**, her faculty sponsor, who taught a course on American higher education in China in June 2011.



Yamin Liu and Cristina González

In addition to doing research, Liu audited various courses to familiarize herself with teaching methods at American universities. This was Liu's first trip out of China.

"As someone who also came to this country from a very different culture, I can understand where she is coming from and what she needs and wants," said González. "It has been an interesting relationship."

Liu, who has a PhD from Huazhong University of Science and Technology, is the author of *On University Spirit* (China

Ocean University Press, 2006), as well as numerous articles on a variety of issues in higher education.

Her current work deals with three inter-related areas of research: a) creativity and graduate education with a particular focus on interdisciplinary programs and professional degrees; b) development of world-class universities in China; and c) faculty promotion and merit evaluation procedures in China

and the United States. Liu also is studying issues related to home schooling of children in the United States.

"During the 21st century, China is striving to improve the quality of higher education and to cultivate creativity in order to improve the economic and social development of the Chinese people," said Liu. "I am very happy to have the opportunity to observe one of America's top universities from the inside." 📖

## TOBIN WHITE Honored for Early Career Excellence

**T**he American Educational Research Association (AERA) awarded **Tobin White**, assistant professor of education, its 2012 Jan Hawkins Award for Early Career Contributions to Humanistic Research & Scholarship in Learning Technologies in April. White will give the annual Jan Hawkins address at AERA's Conference in San Francisco in 2013.

Jan Hawkins (1952-1999) was a developmental psychologist with a cognitive, cultural, and social-interactionist orientation and was well known for her respectful, humanistic conceptions of appropriate roles for using technology in K-12 learning environments. 📖



Tobin White (right)

## New Faculty Member



Kevin Gee

**Kevin Gee** will join the School of Education in July as an assistant professor. Having recently received his doctorate from Harvard University, Kevin joins the School from his current position as a lecturer at the Taubman Center for Public Policy at Brown University. His research interests focus on the role that children's health plays in their ability to learn. He also brings strong expertise in large-scale program evaluation.

## Laura Dubcovsky presents at International Symposium



Laura Dubcovsky

On April 13, **Laura Dubcovsky**, lecturer and teaching credential supervisor, presented at the First International Symposium on Languages for Specific Purposes, at the University of Alabama at Birmingham. The theme was Scholarship of Teaching and Learning. The title of her presentation was "The Use of Spanish for Teaching Purposes in Bilingual Programs."

## School of Education Faculty and Staff Serving in Key Leadership Roles for American Educational Research Association

- **Lee Martin**, assistant professor of math education, has been elected to serve as chair of the Learning Sciences Special Interest Group (SIG) for the American Educational Research Association (AERA). **Vajra Watson**, director of research and policy for equity, has been elected to serve as program chair of the Grassroots Community & Youth Organizing for Education Reform SIG. Special Interest Groups play a very important role in supporting



Lee Martin

## Three Assistant Professors Promoted

As of July 1, **Yuuko Ushikoshi**, **Heidi Ballard** and **Kerry Enright** will be promoted to the level of associate professor.



Yuuko Ushikoshi



Heidi Ballard



Kerry Enright

## Kerry Enright and Steven Athanases Receive Teaching Awards

**Kerry Enright** and **Steven Athanases** have been named 2012 nominees for the Excellence in Education Awards for Outstanding Undergraduate Teaching, sponsored by the Associated Students of UC Davis. They were recognized for their teaching of "Cultural Diversity and Education in a Sociopolitical Context." Enright has also been awarded the Phi Beta Kappa Northern California Association's Excellence in Teaching Award. Phi Beta Kappa's primary mission is to award scholarships and teaching excellence awards to deserving scholars and professors, with the objectives of enhancing the scholars' educational and research activities and honoring those in their teaching of our next generation.

the mission of AERA and in enhancing the vitality of the education research community. Both professors Cynthia Carter Ching and Tobin White have served in this role previously.

- **Steve Athanases**, associate professor of education, has been named an Outstanding Reviewer for 2011 by the AERA for his professional service to the leading AERA journal *Educational Researcher*.
- **Harold Levine**, dean and professor of education, has been elected "member-at-large" of the executive committee to the AERA's Organization of Institutional Affiliates (OIA). This organization comprises a group of leaders in the research policy community made up of over 72 member organizations.

## Faculty Release NEW BOOKS

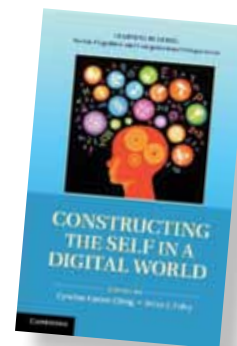
### Language Policy in Arizona

*Implementing Educational Language Policy in Arizona: Legal, Historical, and Current Practices in SEI*, edited by **Chris Faltis**, the Dolly and David Fiddymment Chair in Teacher Education at the School of Education, and M. Beatriz Arias, a professor at Arizona State University, brings together scholars, researchers, and educators to present a critical examination of Arizona's restrictive language policies as they influence teacher preparation and practice. The Structured English Immersion (SEI) model prescribes the segregation of English learners for four hours a day from English speakers and academic content for a minimum of one year. The book is published by Multilingual Matters, Ltd. The front cover features a painting by Chris Faltis. The book is available at [Amazon.com](http://Amazon.com).



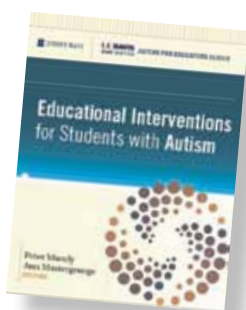
### Role of Technology in Learning

*Constructing the Self in a Digital World*, edited by **Cynthia Carter Ching**, associate professor of education at UC Davis, and Brian Foley, associate professor of secondary education at California State University, Northridge, examines the role of technology in the learning and lives of children and youth. The book, due for release in August by Cambridge University Press, can be pre-ordered at [Amazon.com](http://Amazon.com).



### Education and Autism

*Educational Interventions for Students with Autism*, published as the first in the *Autism for Educators* series by the UC Davis MIND Institute, has been released. The book is edited by **Peter Mundy**, director of educational research at the MIND Institute and professor of education in the UC Davis School of Education, and Ann Mastergeorge, associate professor at the University of Arizona. It provides information on topics related to deepening educators' understanding of the issues and best practices involved in education for autism, including practical strategies for teachers, parents and school administrators. Purchase the book at [www.wiley.com](http://www.wiley.com).



### A Broad Look at the Achievement Gap

**Thomas Timar**, professor and executive director of the Center for Applied Policy in Education (CAP-Ed) in the School of Education, and **Julie Maxwell-Jolly**, managing director of CAP-Ed, are the editors of a new book published by the Harvard Education Publishing Group: *Narrowing the Achievement Gap: Perspectives and Strategies for Challenging Times*. The book is available through Harvard Education Press.



### Research News Brief Focuses on Research Offered at Annual Conference

The School of Education April *Research News Brief* featured research on the efficacy of requiring algebra for all, the opportunity gap for Latinos in high school, and the impact hands-on environmental education can have on students' understanding of scientific concepts. To download a print version of the April 2012 edition, visit <http://education.ucdavis.edu/publication/school-education-research-news-brief>



### Catalyst Wins Award



The Council for Advancement and Support of Education (CASE) recognized the School of Education's *Catalyst* magazine in March with a silver award in the category Communications & Marketing Programs – Print External Audience Tabloids and Newsletters.

## Student Profile: **GOOD INSTRUCTION FOR ALL**

**Michaela Baer** (Credential '12, MA '13)

With a focus on English learners in elementary and secondary settings, Michaela Baer believes “good instruction is good instruction for all.”

Receiving her multiple subject credential this June and working toward her master’s degree next year, Baer has always wanted to be a teacher and believes elementary school “not only provides students with fundamental knowledge and thinking skills, but also a place of social-emotional learning.” She earned her bachelor’s degree in psychology, with minors in education and Spanish, from UC Santa Barbara (UCSB).

Baer has been selected to participate in the 2012 California Bi-National Teacher Education Project (CA Bi-TEP) summer program in Oaxaca, Mexico, through UC Davis Extension. During the 2011-12 school year, she taught kindergarten lessons in the Spanish-only class of the Dual-Language program at Edward Kemble Elementary School in Sacramento. Baer previously worked as a research assistant for the “Growth in Literacy” project at the UCSB Graduate School of Education.

Baer’s passion for education and success in her own educational career led her to be chosen for two student scholarships this year. She is the 2011-12 Mabel Outler Scholar, which is funded by the California Retired Teachers Association to recognize academic excellence, to support students with financial need, and for those with an interest in serving the educational needs of economically deprived students. Baer also received the School of Education Alumni Credential Award, which is funded through generous gifts to the School’s Annual Fund from alumni and friends of the School.



Michaela Baer

**“I credit the program here at UC Davis for giving me the necessary foundation in instructional methods, and more importantly the knowledge and courage to be an activist for equitable practice.”**

– Michaela Baer, student speaker at the 2012 Honoring Educators event.

### PhD Student Receives \$10,000 Scholarship

**Socorro Shiels**, a PhD student in Education, received a \$10,000 Houghton Mifflin Harcourt Scholarship. The award is made to only one student per year to recognize aspiring Latino superintendents.



Socorro Shiels

### PhD Student Named to Serve on Prestigious Research Seminar

**Kathryn Hayes**, a PhD student in education, was named to serve on the 2012 David L. Clark National Graduate Student Research Seminar in Educational Leadership and Policy. A number of doctoral students were nominated this year from universities in the U.S., Canada, and abroad. Forty were invited to participate. The David L. Clark National Graduate Student Research Seminar brings together emerging educational leadership and policy scholars and noted researchers for two days at the 32nd Annual Seminar in Educational Administration and Policy held this year in Vancouver, British Columbia.

#### **GIVING** opportunities

**New Teachers Fund** – Support aspiring educators as they prepare for careers in teaching, and encourage talented young people to respond to the call to teach.

For more information, go to [giving.ucdavis.edu/schooled/newteachers](http://giving.ucdavis.edu/schooled/newteachers). 📄



Alumni Council member Patrick Bohman (Credential '07, MA '08) talks with PhD candidate Juliet Wahleithner about her research.

## Students Showcase Research

Two of the School's PhD students received prizes at the UC Davis Interdisciplinary Graduate and Professional Student Symposium (IGPS) for displays and presentations of their research. The IGPS is an opportunity for graduate and professional students to share their work with each other, the campus, and the wider community.

**Baharek Abhari** won the Dean's Prize for Best Oral Presentation. This award comes with \$1,000 prize. **Rosalyn Earl** won the Provost's Prize for Best Student Organized Session. This award comes with a \$2,500 prize.

Faculty and alumni from every school and college on campus judged the work of more than 170 students.

## Two PhD Candidates Receive Dissertation Fellowships

PhD candidates Lisceth Cruz and Nicole Blalock-Moore have been awarded a UC Davis Dissertation-Year Fellowship for the 2012-13 academic year. This fellowship supports promising doctoral students in their final year of graduate study with a \$20,000 stipend, coverage of all fees, a \$500 research allowance, and a \$500 travel allowance.

"This fellowship will allow me to stay on track for my doctorate by enabling me to concentrate on writing my dissertation," said Cruz. "It is so wonderful."

Lisceth Cruz



## GGE Faculty/Student Showcase Research Presented at National Meetings

The Graduate Group in Education (GGE) invited its faculty and PhD students to share research they presented at conferences this academic year. Each faculty member and student hosted a poster session featuring work he or she did on individual papers, panels, and symposia.



Mallorie McKinnon and Jo Anne Lasola

## Solano Retired Teachers Provide Scholarships to Credential Students

Multiple subject credential candidates **Mallorie McKinnon** and **Jo Anne Lasola** have been awarded the C. Shirley Michel Scholarship from the Solano County Retired Teachers Association. Scholarship awardees must be Solano County residents who plan on entering the teaching profession.

Mallorie McKinnon is from Vacaville and majored in sociology at UC Santa Barbara. She is currently student teaching third grade at Eugene Padan Elementary in Vacaville. Jo Anne Lasola is also student teaching third grade at Fred. T. Korematsu Elementary in Davis. Originally from Vallejo, Jo Anne majored in sociology and English at UC Davis. Both students received their teaching credentials from the School in June and will be pursuing a Master of Arts in Education in the fall. 📖

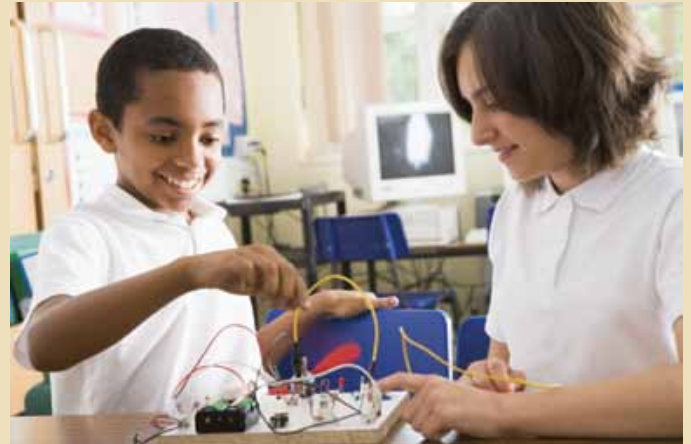
## School and Partner, LEED, Receive Support to CREATE REGIONAL STEM NETWORK

The School of Education and LEED (Linking Education and Economic Development) have received a planning grant from the California STEM Learning Network (CSLNet) to develop a regional STEM education network, in support of in-school and out-of-school programs in science, technology, engineering and math (STEM).

LEED and UC Davis will establish the Capital Area Regional STEM Alliance to work with local school districts, post secondary institutions, employers, museums and other civic partners to align STEM programs and experiences with key regional industry clusters, including agribusiness, health care and bioscience, and clean energy technology, all of which are targeted for development by Next Economy, a regionwide economic development strategy managed by Valley Vision.

School districts, colleges and universities, museums, non-profits and STEM-based employers from throughout the six county Sacramento region will be invited to participate in the nine-month planning process, which began this spring.

Dean Harold Levine noted, "One of the university's core objectives is to leverage our strength in science and engineering to enhance education across the P-20 spectrum, preparing students for both academic and economic success. Our partnership with LEED will allow us to support STEM



education more efficiently, more effectively and to a strategic purpose," concluded Levine.

In addition to supporting in-school and out-of-school STEM programs, LEED and UC Davis also plan to incorporate an entrepreneurial element, encouraging students not just to consider careers in STEM-related fields but also to consider starting their own business enterprises in STEM-related industries. ❏

## Climbing the NATIONAL RANKS

In the past 10 years since becoming a graduate school, the UC Davis School of Education has climbed the ranks when rated against schools of education across the nation. Here's how we compare with the best graduate schools in the country, according to *U.S. News & World Report*.



### GIVING opportunities

**Catalyst Fund** – Support investment in innovative new initiatives that make a difference in teaching and learning, and in the lives of our children.

For more information, go to [giving.ucdavis.edu/schooled/catalyst](http://giving.ucdavis.edu/schooled/catalyst). ❏

- Overall among nationally ranked schools of education: 58
- Top 23% overall of nationally ranked schools of education
- Top 14% in best overall reputation of nationally ranked schools of education
- Top 12% in non-academic reputation of nationally ranked schools of education
- Top 16% in academic reputation of nationally ranked schools of education
- Top 24% in competitive acceptance rate of nationally ranked schools of education ❏

*\*Data provided here based on 2011-12 academic year.*

## School Welcomes New Members to BOARD OF ADVISORS

The School is pleased to announce three new members have joined the School's Board of Advisors. They were each recruited because of the unique skills, talents, and above all, passion for education.

■ **Nancy Brodovsky:** SacConnects is a consulting firm Brodovsky recently formed to help nonprofits better accomplish their missions and to assist philanthropically-oriented businesses obtain greater success through their community involvement.



Nancy Brodovsky




Kevin Gordon



Laura Wendel


■ **Kevin Gordon:** Widely viewed as one of the top education advocates in California, Gordon is President of School Innovations and Advocacy, which is focused on providing solutions for schools on the toughest revenue and budget issues they face and providing services aimed at improving student success.

■ **Laura Wendel:** An advocate for the arts, and in particular arts education, Wendel serves on the Arts Advisory Board to the Sacramento County Office of Education, is an active supporter of the Crocker Art Museum, and is engaged in the annual art auction sponsored by the Sierra Sacramento Valley Medical Society Alliance.

Members of the Board of Advisors are important advocates in our community working to advance the School of Education's mission. We continue to appreciate their generous support and commitment and welcome these new members in these efforts. Read more about the Board of Advisors at <http://education.ucdavis.edu/board-advisors>. 

## New SUMMER ADVENTURES IN ENRICHMENT Camp for Kids in Grades 4-12

In conjunction with UC Davis Campus Recreation, the School of Education offers several Summer Adventures in Enrichment Camps for kids in grades 4-12. For the first time, the School will offer "Science You Can Eat" and "Where Math Meets Life" for grades 4-8 in Woodland, Calif. High school students in Woodland can also take courses on college preparation. Courses in Woodland run from June 18-28.

Visit the School's website at <http://education.ucdavis.edu/event/summer-enrichment-camps-are-back> to download flyers about all of the camps and to learn more about registering for the camps in Woodland. Visit the Campus Rec website at <http://campusrecreation.ucdavis.edu> to sign up for camps hosted on the UC Davis campus. 



## EDUCATION APPRECIATION NIGHT with Aggie Basketball



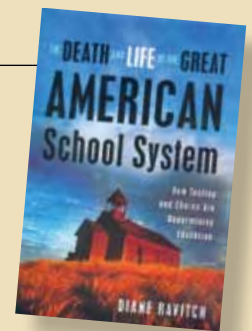
The School of Education and UC Davis Athletics co-sponsored Education Appreciation Night during an Aggie Basketball doubleheader on February 9. Celebrating the positive impact of education in our region, all K-12 teachers from Dixon, Woodland and Davis school districts received free game tickets to attend and were recognized during the games. A lively Youth Carnival in the ARC Pavilion's upper level featured fun games and giveaways for the kids, and the UC Davis Book Drive also received donated books at the door to benefit local elementary schools. 📖



## School Hosts Reception for Renowned Author and Education Historian DIANE RAVITCH

In January, **Diane Ravitch**, professor of education at New York University, spoke at the Sacramento Convention Center. The UC Davis School of Education and the College of Education at Sacramento State University co-hosted a private reception for the speaker.

In her speech after the reception, Ravitch told the group, “We all know that American public education is in crisis. Not the crisis that the pundits talk about. American public education



is in crisis because it is under attack.” She noted what she sees as a drive to privatize public education.

“They want parents to be consumers. They want students to be products,” Ravitch warned.

Ravitch is also a nonresident senior fellow at the Brookings Institution in Washington, DC. She served as a Assistant Secretary of Education under the H. George Bush and the Clinton administrations. She is widely considered to be among the leading spokespersons for public education in the United States. Her latest book is *The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education* (New York: Basic Books, 2010). 📖



Diane Ravitch





"The biggest 'ah-ha' for me has been the range of innovation and how creative

# PUTTING Teachers IN CHARGE OF THEIR OWN Learning



## PACIFIC COAST TEACHER INNOVATION NETWORK



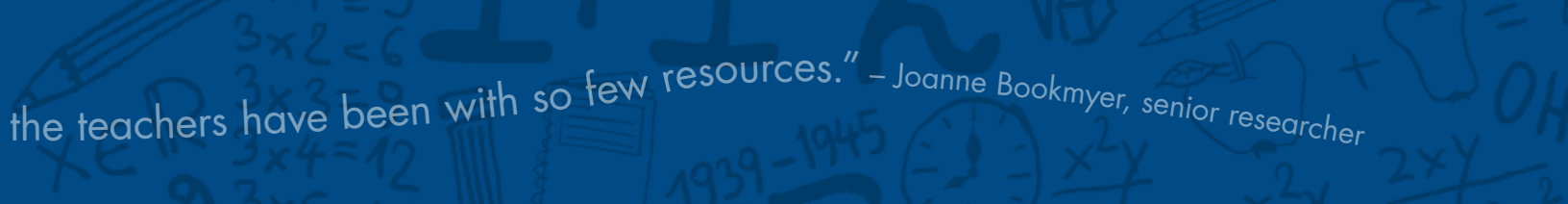
In 2009, as part of its Improving Teacher Quality Teacher-Based Reform (T-BAR) grants program, the California Postsecondary Education Commission (CPEC) awarded the School of Education a \$1 million grant to launch the Pacific Coast Teacher Innovation Network (PacTIN).

Through PacTIN, the School invited small teams of classroom teachers, between three and five from a single school, to submit proposals detailing a professional development plan adapted to their school, planting the seeds for eventual whole-school reform. Each grant provides up to \$30,000 and runs for two years.

The model was so successful that in 2011 CPEC released another \$1 million for the School to fund another cohort of teachers. This April, a third round of funding was granted to provide an extension to the existing cohorts, establish a one-year third cohort, and provide six mini grants to PacTIN's district partner, Pajaro Valley Unified School District. In all, CPEC has awarded the School more than \$3 million to implement and disseminate this model of innovative teacher-driven professional development.

In all, 49 teams in 13 counties and 34 school districts along the Pacific Coast of California are currently participating. The School of Education's CRESS Center partners with Humboldt Science and Mathematics Center and the College of Professional Studies at Humboldt State University to manage the project and evaluate its impact.

"There were relatively few restrictions on the kinds of activities the teachers could propose," said Joanne Bookmyer, a senior researcher in the School's CRESS Center and PacTIN project director. "We wanted to allow teachers to identify the kinds of opportunities that they thought would be most valuable to improving their practice and that would have the greatest impact on their students and schools."



the teachers have been with so few resources.” – Joanne Bookmyer, senior researcher

The sheer variety of projects reflects the freedom teachers had to explore new approaches to teaching and learning in their schools. Projects range from a focus on writing through the use of video, to training in ropes courses and environmental education, to creating a sustainable and democratic school culture, to developing a model for teaching Spanish to native speakers.

“I believe this is the most authentic kind of professional development for teachers,” said Marcia Trott, education programs consultant at the California Department of Education. “The teachers own it. It is truly grassroots.”

“Traditionally professional development has been kind of top down, dropped into schools,” said Jeffrey White, PacTIN research director and director of the Redwood Science Project at Humboldt State University. “CPEC realized that we must stop the de-professionalization of teachers. This grant turns that trend around, and I am thrilled to be part of it.”

According to Trott and Bookmyer, one of the greatest outcomes has been the influence a small group of teachers, with a “little money,” can make on the environment of a school.

“The biggest ‘ah-ha’ for me has been the range of innovation and how creative the teachers have been with so few resources,” said Bookmyer. “Whole groups of teachers are putting in huge amounts of time to make their visions a reality, and we are starting to see how these groups of teachers are influencing not only peers at their schools, but districtwide thinking about different ways to approach teaching and student learning.” PacTIN teachers are also beginning to extend their impact well beyond their own learning communities as presenters at regional and national conferences.

To learn from each other, PacTIN Project Teams also participate in two annual meetings at UC Davis. “Already we can see that bringing together the PacTIN participants is contributing to the body of knowledge around embedded professional development, teacher-driven school change, and professional learning communities,” said Bookmyer.

PacTIN is a perfect embodiment of the notion that having K-12 and higher education work together can be powerful, according to Trott. “One institution cannot survive without the other. In order for us to create systems of continual improvement all along the pipeline, we must nurture this relationship.”

## FEATURED PacTIN PROJECTS

### “Actively Engaging in Change: Instructional Rounds For Active Student Engagement”

*Lawrence E. Jones Middle School  
Cotati-Rohnert Park Unified School District, Sonoma County*

Jones Middle School faced a unique challenge: merging two schools with very different populations of students and distinct staffs in a way that ensured teachers were prepared to meet a diversity of student needs. Teachers, who had already received training in a methodology called Active Student Engagement (ASE), proposed they create a coaching team that would lead a group of participating teachers in learning how to keep students engaged in learning. ASE emphasizes interactivity and constant feedback from students throughout a lesson, with students utilizing white boards, playing Jeopardy-type games to find answers together, or responding with thumbs up or down responses continually.

The PacTIN team at Jones Middle School leads a group of participating teachers in learning the techniques of ASE through demonstrations, training sessions, and regular guided teacher observation rounds. Once a month, the participating teachers visit each other’s classrooms and take notes on the use of ASE techniques. Afterward, the group meets to debrief, share their observations and learn from each other on how to improve.

“Without the grant, the teachers and coaches would not be able to take a whole day once a month to do this,” said Principal Laurie Mason. “Now, we have the flexibility we need to create a whole cadre of teachers who are constantly improving their teaching.”



## Featured PacTIN Projects



### **"Writing and Multimedia"**

*Orick Elementary School  
Orick School District, Humboldt County*

Amidst the beauty and grandeur of the Redwood National Park, a small school faces the prospect that its students could be left behind, financially, socially and academically. With the local lumber mill closing its doors for good, teachers at tiny Orick Elementary School proposed a unique way to improve their students' learning, specifically in writing, while at the same time preparing its community to embrace a new identity without the lumber industry.

With its PacTIN grant, the Orick Elementary team designed an ambitious project to introduce its students to storytelling via video. Partnering with the Redwood Writing Project at Humboldt State University and their local public access television station, the team leveraged its outdoor education program to have students write about their experiences in their community, from crabbing on the bay to fishing for salmon. The whole process "allows for much greater student voice and a sense of place," according to John Sutter, third grade teacher and former principal at Orick. With the grant, the team was able to purchase flip-style video cameras and receive training on video editing. The students write the content, shoot some of the video and do the voiceovers.

"With this grant, we have really been able to push the envelope technically," said Sutter. "In the process, students have gained confidence, we've been able to promote the school in a positive way, and the community is beginning to see another way to redefine itself in a new economy."

To see some of the videos produced by Orick Elementary students, visit <http://video.accesshumboldt.net/video/1270/digital-story-telling-at-orick>.

### **"Creating A Sustainable School"**

*Laurel Tree Learning Center  
Northern Humboldt Union High School District, Humboldt County*



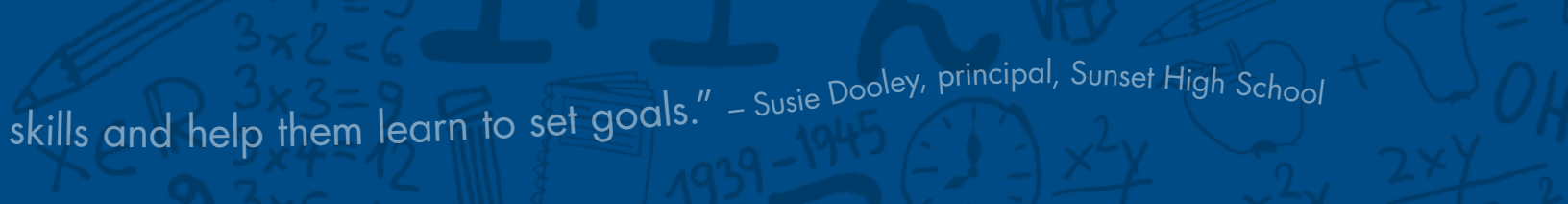
With a focus on strengthening students' civic engagement and environmental awareness, the teachers at Laurel Tree Learning Center sought funding to learn more about building sustainable communities, gardening, and permaculture (the design and development of productive and self-regulating landscapes). Their goal was nothing short of whole school transformation.

"Permaculture is not just about recycling or recapturing run-off," said Dan Equinoss, one of the teachers at the school. "The ethics of permaculture can apply to any aspect of life."

Indeed, every activity at Laurel Tree revolves around a commitment to democracy and sustainability. Students are organized into tribes who share rotating responsibilities at the school, including one-month rotations preparing lunch for everyone in the school's small, well-appointed kitchen. Students participate in the life of the school in every way, from helping to raise chickens and improve the grounds of the school to mentoring the younger children in math and science. The teachers have applied the principals of democracy and sustainability to the curriculum as well, through group writing, cross-age writing, portfolios and peer review.

By focusing on a schoolwide curriculum of sustainability practices, teachers believe the students gain competency in academic areas as well as skills in gardening, construction, energy generation, cooking, business management, and community building. These principles and skills are interwoven into the school culture, the academic curriculum, and into how students are prepared for college.





skills and help them learn to set goals." – Susie Dooley, principal, Sunset High School




### **“Building an Experiential Learning Site”**

*Sunset High School  
Del Norte Unified School District, Del Norte County*

Teachers and administrators at Sunset, a continuation high school in Del Norte County, knew they could do better by their students, who had been left behind by the educational system in so many ways. Starting from the perspective that their school had untapped strengths and assets, the teachers proposed to leverage the two acres of redwood forest on their campus to create a place where students could engage in teamwork, research and leadership. A place, in short, where they mattered.

With their PacTIN grant, the Sunset team got training that they passed onto students to add to the local ropes course; create an interpretive walk identifying local flora and fauna; add to their culinary arts program with a lunch program using locally grown native foods; and provide an arts component to their environmental education outreach. The result is a high school where students serve as facilitators and guides for their district’s larger student population in all of these activities.

In addition, students at Sunset have hosted all third grade classes in Del Norte County schools, providing environmental education, games, art, and organic cooking classes in their kitchen. Soon they will host students in higher grades, adjusting their content as needed.

“Our goal was to build self-esteem, improve students communication skills and help them learn to set goals,” said Principal Susie Dooley. “What I didn’t expect was the infusion of confidence the students experienced. Suddenly, the building is full of life and happiness. If students can feel confidence here, they can enter the world confidently.” 



“Unfortunately, many school districts have been forced to eliminate their summer programming.” – Kindra Montgomery-Block, Summer Matters Sacramento

# Tackling the SUMMER SLIDE

## Professional Development for Summer Program Providers

Summer can be a precarious time for students academically. For too many, the notorious summer slide kicks in, widening the academic achievement gap with every passing year.

To address this challenge, the Center for Community School Partnerships (CCSP), housed in the School’s CRESS Center, hosted the first of several planned Summer Matters Summits in May. The Sacramento Summit brought together summer program service providers, representatives of the Sacramento County Office of Education, Sacramento City Unified School District and the Mayor’s office, and national leaders in summer school programming.

“Our goal was to get folks together to discuss best practices that take into account academic preparation as well as social-emotional support and good-old summertime fun,” said Kindra Montgomery-Block, the School’s director of training and community relations, and organizer of Summer Matters Sacramento. Discussions also focused on research into indicators of high-quality programs and how to assess them.

According to Montgomery-Block ensuring that meaningful academic support systems are in place is critical to students’ long-term success, but often, summer programs don’t include academic content that supports year-long learning.

“Especially for low income students of color, summer often means falling up to three months behind

in academic content knowledge,” said Montgomery-Block. “Teachers have to scramble to bring kids up to speed in the first months of each school year, and with every passing summer, kids get that much further behind.”

Workshops and speakers at the summit also shared information on funding options and other resources the program providers can tap into to strengthen their services to kids. “Unfortunately, many school districts have been forced to eliminate their summer programming, so helping these providers find alternative sources of funding is really important,” said Montgomery-Block.

To address the issue of resources and to encourage development of best practices, Summer Matters Sacramento offers providers with the opportunity to apply for mini-grants. “These small \$1,000 grants will assist innovative educators working with low-income youth and youth of color to design and implement high quality summer learning programs,” said Montgomery-Block.

Earlier this year the National Summer Learning Association named the CCSP as a Smarter Summers Community Representative to develop CCSP’s summer learning expertise and capacity. Montgomery-Block along with bel Reyes, community schools program director in the CRESS Center, will head up all efforts related to the School’s work in summer programming. For more information on the National Summer Learning Association, visit the web at <http://www.summerlearning.org>.



Left to right: Barbara Metzruk and Monica Gonzalez-Williams (both from Sacramento County Office of Education) with bel Reyes and Kindra Montgomery-Block (both from UC Davis School of Education’s CRESS Center)

"It is a very exciting time to be working in the field of science education. We are right at the pinnacle of some incredible potentials." – Arthur Beauchamp, director of SASP

## Leading Professional Development in Science: SACRAMENTO AREA SCIENCE PROJECT



Preparing young people to excel in the sciences has become a top priority among policymakers, educators and business. In a rare case of complete agreement, representatives from all of these groups seek reform in the way we teach science in schools.

The Sacramento Area Science Project (SASP), housed in the School's CRESS Center, is poised to make great inroads in a widespread effort to transform science education.

"Teachers have the power to change the way students learn science," said Cindy Passmore, School of Education associate professor and SASP's faculty lead. "With a new set of science standards on the horizon that emphasize learning science not as a discrete set of facts, but as an exploration that requires a great deal of reasoning and critical thinking, teachers need a lot of support to fundamentally change the way they approach their instruction. SASP is in an excellent position to provide that support."

For more than 25 years, SASP has led the region in professional development for science teachers. SASP is a rare partnership between a UC and a state university (UC Davis and Sacramento State co-sponsor the project) and is responsible for the longest running K-12 science education professional development program in California (Science in the River City), in continuous operation since 1986.

SASP pairs teacher leaders with education or science faculty to provide a variety of professional learning experiences including workshops, fieldtrips, seminars and institutes. In all, SASP's scope of work includes the following:

- **Model-Based Instruction:** With funding from the National Science Foundation, SASP conducts research on how teachers learn about modeling as a scientific endeavor and incorporate model-based reasoning as an instructional strategy in their classrooms.
- **Literacy Techniques to Support Science Understanding:** Funded through the California Postsecondary Education Commission, SASP is exploring the efficacy of using dialogue, reading and writing strategies to support students' scientific literacy as well as increase students' reading and writing skills.
- **Professional Learning Communities:** Working with teachers in a variety of settings, SASP creates, supports and analyzes the ways teachers learn and

grow through their participation in learning communities. Its primary tool in this effort is SASP's experience in and use of lesson study.

- **Science in the River City:** This K-12 workshop series carries strands in elementary science, earth science, life science and physical sciences, providing innovative ideas, lessons and strategies for teachers to use in their classrooms.
- **Summer Science Institutes:** These workshops cover the range of sub-disciplines in science (earth science, biology, chemistry, physics), as well as English learner strategies in science, leadership skills, lesson study and managing the science classroom.



In December, SASP and the Elk Grove Unified School District were awarded a California Mathematics and Science Partnership grant (CaMSP). The \$2.1 million grant, called eSCI+, is targeted at strengthening science instruction and student learning in grades 6, 7 and 8 in the Elk Grove District. Seventy science teachers are expected to participate in the professional learning, research and evaluation that will roll out over three years.

The eSCI+ grant will feature research-based instructional techniques, innovative reasoning practices and will support teachers in seeking National Board Certification. Lesson Study will be used as one aspect of the overall professional learning program that also includes summer and winter institutes.

"For the last several years, not much science instruction had been happening in elementary schools because of the focus on

continued on page 25

"K-12 students need to be challenged to think and reason in ways

# INNOVATIONS IN STEM TEACHING, ACHIEVEMENT AND RESEARCH

A NEW MODEL FOR PROFESSIONAL DEVELOPMENT IN SCIENCE AND MATH DISCIPLINES

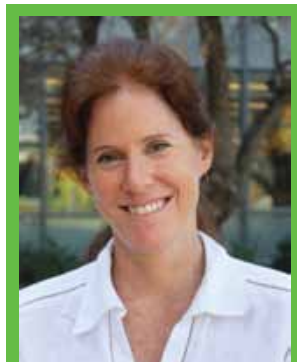
The S.D. Bechtel, Jr. Foundation has made a four-year, \$1.6 million grant to the School of Education to support a leading edge effort that could fundamentally reform the teaching and learning of STEM (science, technology, engineering and math) in K-12 schools.

The Innovations in STEM Teaching, Achievement and Research (I-STAR) program will partner STEM researchers and educators from across the university with K-12 math and science teachers from two local school districts to form design teams. The teams of 34 school district participants and UC Davis faculty will design learning environments that focus on reasoning as the path to mastery of STEM content.

Education in science and mathematics is in dire need of reform, according to Associate Professor Cindy Passmore, lead researcher on I-STAR. To enter and succeed in the complex fields that make up the STEM disciplines, K-12 students need to be challenged to think and reason in ways that current curriculum doesn't require.

"In many classrooms, these complex and dynamic fields have been reduced to a collection of discrete facts," said Passmore. "Learning has become more about memorization than understanding. We must change this state of affairs if our students are to emerge from schooling prepared to pursue and succeed in STEM careers and in the larger society."

The danger of the current approach is two-fold, according to Passmore. First, real people working in STEM disciplines must be not only masters of the content in their field, but also able to think creatively, gather data and evidence, and problem solve across many disciplines to discover



Cindy Passmore

the knowledge they are creating. This kind of approach, in turn, requires someone who knows how to make content connections among different fields.

Second, mastery of STEM content itself requires much deeper analysis and reasoning than simply memorizing facts. So, the current approach to teaching STEM subjects falls short of providing students with the skills needed to understand the facts they have memorized.

Worse still, students often find STEM courses boring, in part because they don't understand how they are interrelated.

"We know that kids often compartmentalize their learning, viewing each class as totally separate," said Passmore. "So they are not using skills they learned in one class in another. This may be because teachers are unaware of what is happening in other classes and don't reinforce general reasoning patterns that cut across the curriculum."

The result, according to Passmore, is kids who just trudge obediently from one class to another never really enjoying the thrill of making those connections. "If they are bored and disempowered to use the skills that every human being has used since birth to navigate the world, students turn off their creativity, eschew ideas of pursuing STEM in college, and just endure."

I-STAR hopes to tackle this challenge head on by encouraging teachers from different disciplines and different grades to work together. This is where the innovation of I-STAR really kicks in. Partnering teachers from different disciplines and grades who will spend three years collaborating on how to reframe instruction around reasoning rather than content,





that current curriculum doesn't require." – Cindy Passmore, associate professor

will ensure that their instruction will track across courses and grades.

Finally, the challenge comes down to helping teachers adopt a new approach. In addition to I-STAR's focus on teachers and university faculty working together to create new curricular frameworks, methods, and tools for teaching STEM, the first step is to agree upon new expectations for student learning.

"Teachers teach the way they have been taught, and many STEM teachers succeeded in the current paradigm of memorization and multiple subject tests," said Passmore. "So together, we will need to collectively come to an understanding of what students are capable of doing in learning



environments that challenge them."

Ultimately, I-STAR aims to create a new professional learning community of scholars, teachers, administrators, parents and community members committed to a new way of teaching STEM. Their learning and the outcomes of their work together will be the basis of a model other schools and learning communities can follow.

"We are thrilled to have the support and partnership of the S.D. Bechtel, Jr. Foundation," said Dean Harold Levine. "The School of Education and the entire STEM community of researchers and educators at UC Davis share the Bechtel Foundation's vision to strengthen educational systems in order to develop STEM-literate Californians for an innovative and competitive workforce."

## SASP continued from page 23

writing and mathematics," said Arthur Beauchamp, director of SASP. "I am hoping this work with Elk Grove can reintroduce engaging science instruction earlier."

In addition to its direct work with teachers, SASP provides leadership among researchers about best practices in science education. For instance, in November 2011, SASP, with support from the California Postsecondary Education Commission, hosted a national colloquium on the practice of modeling and model-based reasoning. Twenty researchers from across the US and one other country spent two days discussing each other's work, sharing the advances and challenges involved in conducting research in this field, and talking about possible future efforts (both individual and collaborative) that might fill in some of the missing knowledge about modeling and model-based instruction.

SASP is also helping to shape new standards for K-12 science instruction. Passmore, Beauchamp, and Rick Pomeroy, science education lecturer/supervisor in the School's teaching credential program, serve on the California Review Committee for the Next Generation of National Science Standards.

Finally, SASP has launched a new initiative that extends its work to students directly. In May, SASP and its partner, the Powerhouse Science Center hosted the first Sacramento Dinner with a Scientist event. Dinner with a Scientist brings together 7th – 12th grade students with professionals in the STEM (science, technology, engineering and math) disciplines over dinner. The goal is to inspire and motivate students to excel in STEM disciplines and encourage them to pursue STEM careers. Scientists see it as an opportunity to interact with young people and share their scientific passion, experience and journey. Read more about this event on page 38.

"Teachers are asked now to guide students through a much more conceptual understanding of math." — Julie Orosco

# MATH PROJECT

## Ready to Help Teachers Tackle New Standards

**B**ig changes are on the horizon for teachers of math. New Common Core Standards, adopted by California and already in place in many other states, could turn instruction on its head. But change can be good, especially for students.

"The new standards look at math as student-centered," said Julie Orosco, director of the UC Davis Math Project (UCDMP). "Teachers are asked now to guide students through a much more conceptual understanding of math, rather than lecturing on particular formulas and prescribed solutions. This is an exciting time because teachers will have to change in a good way."

Julie and her co-director Pam Hutchison, have been training teachers for years to tackle their math lessons differently, providing teachers with methods and tools for helping students focus not on the what, but the how of math.

"Research shows that if students don't learn how to understand math, they will just get through the memorization of formulas never really understanding the structure of mathematics," said Orosco. Students who are not prepared to reason through mathematics are ill-prepared for careers in math and science.

According to Orosco, this approach to reasoning, evaluation and exploring the underlying structure of mathematics is now built into the new standards. By 2015, standardized assessments in math will catch up with the standards, presenting students with many fewer multiple-choice questions and many more open-ended problems that require students to show their work and explain their solutions.

Implementation of the new standards marks a "big change" for teachers, according to Orosco. Many math teachers today entered the profession during the last decade

when teaching to the test has been *de rigueur*. The standards used today have been in place since about 2001, as part of the educational overhaul known as No Child Left Behind.

"What you test is what you get," said Orosco. For instance, she says there is a big difference between asking a student to solve a quadratic equation and asking that student to justify the solution. "The question should be 'what makes it a quadratic equation?' If they can answer that question, they can demonstrate an understanding of the structure and what could happen next."

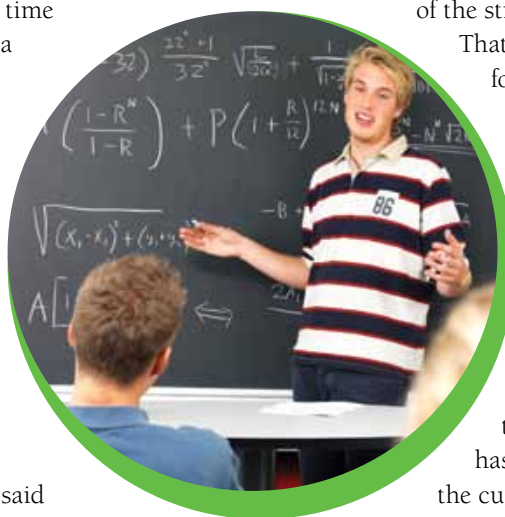
That's higher order thinking, a critical skill for success in STEM (science, technology, engineering and math) disciplines and careers.

Teachers are going to have to learn a whole new set of skills, and they will need a lot of support.

"We have been incredibly busy, working with teachers and talking with administrators about the implications of the standards for instruction," said Orosco. "Of course, the math hasn't changed, but there will be a gap in the curriculum teachers have access to and what they need to do things differently. Teachers are going to need access to good resources with the kinds of rich problems kids need to be exposed to."

Now more than ever, UCDMP's focus on meeting specific site or district needs is going to be critical to helping teachers find and share resources that meet the particular needs of their unique learning communities.

"We don't tell teachers what they need to be doing; we don't offer them neat curricular packages," said Orosco, who taught mathematics for 14 years and is now pursuing her PhD at the School of Education. "We run our professional development the way we would like our teachers to run their classrooms. They do the math, we guide the process." ■





# TRAINING TEACHERS

## TO BRIDGE THE LANGUAGE GAP: ACADEMIC LITERACY SUMMIT

Most students speak a different language out of the classroom. From text messaging to culturally specific slang, it's an entirely different world outside the four walls of the classroom. At best the result can be miscommunication between teacher and student; at worst, students fail to master academic language, often locking them out of success in the classroom.

The School of Education aims to help teachers learn how to recognize the power of their students' nonacademic language and at the same time help them learn to bridge the divide so that students can be successful both in and out of the classroom.

The School's annual Academic Literacy Summit provides a unique professional development opportunity for hundreds of K-12 teachers and education researchers who converge at UC Davis for a one-day summit to tackle this challenge head-on.

"It's important to value and build upon the local knowledge that each student already has," said Kerry Enright, assistant professor in the School of Education and an expert on academic literacy.

Too often, students get the message that the various ways they express themselves outside school have no place in a classroom. According to Enright, this can lead teachers and students to hold a "deficit mentality," in which all non-academic language is deemed less valuable than "academic" language. As a result, students can become disengaged and marginalized at school.

Now in its fifth year, the Academic Literacy Summit serves as a resource for K-12 teachers and administrators,


community college and university instructors, and educational researchers to share research-informed practices related to teaching academic literacy, especially related to addressing the literacy needs of culturally and linguistically diverse students.

### This Year's Summit

More than 200 regional educators attended the 5th Annual Academic Literacy Summit for a day of workshops and discussion exploring what is at the core of academic literacy. Special attention was given to California's newly adopted Common Core Standards. The afternoon keynote speaker was Alumna Luciana de Oliveira (PhD '06), now an associate professor at Purdue University (see p.6).

The morning plenary featured a teacher demonstration by Jose Rivas, physics & engineering teacher at Lennox Mathematics, Science, & Technology Academy. Rivas walked attendees through an exploratory-based lesson design.

"Academic literacy can only be developed if the goals of the lesson are connected to the life experiences of each student in the classroom," said Rivas. "Moreover, the students must be allowed to explore the learning goals in the classroom so that they can make direct and meaningful connections with the material presented in class."

To learn more about this and previous summits, visit <http://education.ucdavis.edu/academic-literacy-project>. 

**"Academic literacy can only be developed if the goals of the lesson are connected to the life experiences."**

– Jose Rivas



Photo by Roman Rykun/Twin Rivers Unified School District

# Bringing the Community into the Classroom

## TO CLOSE THE ACHIEVEMENT GAP



iving amidst the sound of gunshots, the pain of constant bereavement, and staggering poverty, students in our urban centers often find it hard to concentrate on school.

With a dropout rate hovering at 30 percent for urban high schools, our mandate is to do better job preparing all students for success.

The School of Education's ground-breaking student-centered, spoken word program, Sacramento Area Youth Speaks (SAYS), places trained community educators in classrooms to work with teachers and students in an effort to make school a place of healing and achievement, rather than another source of stress.

Already a highly effective program for organizing youth around social consciousness and literacy activities, SAYS' powerful professional development component aims to revolutionize the way teachers and students in the most challenging schools interact and learn together.

With a \$1 million Improving Teacher Quality (ITQ) grant from the California Postsecondary Education Commission (CPEC) in 2011, the School launched a three-year program called "Closing the Achievement Gap Write Now: Using an Innovative Literacy Program to Strengthen Teacher Practices and Pedagogy."

The program teams up SAYS, the Area 3 Writing Project (A3WP), and the University Writing Program to create and implement an in-depth professional development experience for teachers in the Twin Rivers Unified School District (in North Sacramento). English and special education/support teachers at Martin Luther King Jr. Technology Academy (grades 7-8), Grant Union High School, and the district's continuation schools participate. Each classroom teacher receives weekly coaching from SAYS poet-mentors, lesson study sessions with A3WP teacher leaders, seminars, and summer institutes all designed to strengthen teachers' ability to provide engaging, culturally relevant, standards-based instruction.



continued on page 29

# Harnessing the Power of Teachers

## Teaching Teachers: Area 3 Writing Project

Teachers who require writing from their students often don't see themselves as writers, according to Karen Smith, director of the Area 3 Writing Project (A3WP), housed in the School's CRESS Center. But, write they must.

"Having to write themselves really opens teachers' minds to what we ask of students," said Smith. As part of the A3WP's keystone Invitational Summer Institute, teachers write every day, in and out of the Institute. "The writing component is intensive, but really crucial to [the attendees'] ability to think about how they teach and how they might do it better."

A3WP is one of the most respected models for teacher professional development in the state. Established in 1981, A3WP reaches nearly 500 teachers per year. Its work is based

on a teacher-teaching-teachers model.

"Our philosophy of teachers-teaching-teachers makes us strong," says Smith, who still teaches elementary school science twice a week. "You can just feel the shift in the room when teachers realize you get them."

Since the creation of the Bay Area Writing Project at UC Berkeley in 1974, the writing project model for staff development in the teaching of writing has been replicated statewide and nationwide. The Area 3 Writing Project (A3WP) at UC Davis is one of 17 projects in the California Writing Project network and one of 200 in the National Writing Project network.

continued on page 30 

### Achievement Gap continued from page 28

The program began with two fundamental questions: How do we change the trajectory and mindset of young people who have given up on themselves? And what type of classroom pedagogy will significantly impact their sense of agency and activism?

"My experience and a vast amount of research shows that if you want to teach students, you must first reach them," said Vajra Watson, director of research and policy for equity and director of the SAYS program.

One of the most innovative aspects of the program involves "bringing the community into the classroom," according to Watson. SAYS places Poet Mentor Educators (PMEs) into each teacher's classroom. Led by the SAYS Coordinator, Amaya Noguera, PMEs receive six weeks of training in three core areas: critical pedagogy, curriculum development, and artistic expression. Subsequently, they enter the classroom once a week as a partner to the teachers and as a mentor and role model for the students.

"At the intersection between the streets and school, the PMEs have a unique rapport with students and design standards-based curricula that focuses on their life experiences," said Watson. "When we can turn life into text, something happens. Students become more engaged and more committed to their learning."


One teacher said, "Allowing students to be themselves shows

students that they are respected and that we care, which leads to improved student engagement."

According to preliminary data already collected on the project by the School's Center for Education and Evaluation Services, 100 percent of teachers report that they have observed increased student engagement, and 54 percent report students completed class assignments more frequently.

"It can be scary for teachers to allow students to talk about issues they care about, issues that may be very contentious and personal," said Watson. "But the teachers are beginning to see the power of allowing students to bring their full selves into class. It forces everyone to think differently."

One of the most surprising outcomes of this program, according to Watson, has been the extent to which the teachers themselves have taken up the pen to write spoken word poems that often lay bare personal things about them that their students would not otherwise have known. According to Watson, this builds trust and creates an authentically humane learning environment.

"What SAYS talks about is teacher and student empathy," said Marcia Trott, education programs consultant for CPEC at the California Department of Education. "Ultimately this program is helping teachers and students communicate." 

All of A3WP's programs and activities are based upon the following principles:

- Student writing can be improved by improving the teaching of writing, and the best teacher of other teachers is a successful classroom teacher.
- Programs designed to improve the teaching of writing must involve teachers of all grade levels and should be collaboratively planned by schools and universities.
- Large-scale educational change occurs only over time and can best be accomplished by those who work within the schools.
- What is known about the teaching of writing comes from research and from the successful practices of those who teach writing.
- Because writing is fundamental to critical thinking and learning in all subject areas, all writing project programs should involve teachers from across the disciplines.
- Teachers of writing must also write, for only by writing can teachers fully understand what they are asking of their students.

In addition to the writing project's core Invitational Summer Institute, A3WP conducts a demonstration workshop series, hosts intensive one- and two-week summer open programs, designs and conducts staff development in-service programs for schools and districts, collaborates on extended partnerships with schools and districts, and offers research opportunities for teachers and administrators throughout Area 3 (a seven-county region, which



**“The Writing Project doesn’t promote any one pat method, program or way of thinking. Instead, involved teachers are encouraged to constantly question why they do what they do, and why it does or doesn’t work in the classroom. This has led to many innovations over the years that could then be shared with others in many classrooms, schools and districts.”**


– Bob Congeyer, co-director of A3WP and third grade teacher at Taylor Street School in Robla, Calif.

extends from the inland reaches of the Sacramento River Delta, throughout the Sacramento Valley, and up to the Sierra foothills and the greater Lake Tahoe region). The project also hosts family writing nights and offers writing workshops for youth in the summer.

One of the most significant goals of A3WP is to ensure continuity. Teachers who participate in the project are in for life. “It is so important to keep teachers in a professional learning community,” said Smith. “We are often so isolated.”

Teachers who go through the intensive summer institute also have an opportunity to serve as teacher consultants for the project. This continuous process of training teacher-consultants enables the A3WP to extend its reach through on-site workshops, an important component of effective professional development.

“We have teachers from every discipline whom we can put in schools where their experience matches well with the needs of particular learning communities,” said Smith. “Understanding the context of the site is critical for real learning and change to occur.”

Recently demand for A3WP's expertise is on the rise because districts are beginning to implement the Common Core Standards, a new approach nationwide to provide standards for learning at every grade level and every subject that better prepare students to think critically, write well across the disciplines and master knowledge and skills for college and career. 

**“Ongoing professional development not only adds to one’s content and pedagogical knowledge, it also feeds the soul of the teacher. A teacher with a well-nourished soul is better able, and more likely, to fortify the souls of students.”**

– Shannon Cannon, lecturer/supervisor in the School’s teaching credential program.

**“The connections I have made with other teacher consultants through the Project are the strongest and most motivating professional associations I have made throughout my teaching career.”**

– Aman Dhanda (Credential ‘05, MA ‘06), fifth grade teacher at T.L. Whitehead Elementary School in Woodland, Calif.

"There was literally no session that I found was less than brilliant."  
— Teacher participant in the first Shakespeare Works When Shakespeare Plays Conference

# Shakespeare

## WORKS WHEN SHAKESPEARE PLAYS:

One-a-Kind Professional Development Conference for English and Theater Teachers

In January, the School's first three-day Shakespeare Works When Shakespeare Plays conference for teachers was such a huge success that we will offer it again in January 2013.

The conference is presented as a partnership between the UC Davis School of Education and the Robert and Margrit Mondavi Center for the Performing Arts at UC Davis in association with Globe Education (Shakespeare's Globe, London) and the Shakespeare Theatre Association. The goal is to infuse language arts education with a vibrant and relevant understanding and appreciation for Shakespeare.

Eminent Shakespeare festival directors, educators and actors from the U.S. and Globe Education offer workshops and networking opportunities for both teachers and guest lecturers. The focus is on active and playful approaches to enliven the teaching of Shakespeare.

"As we all know, the arts in California classrooms are on life support," said Dean Harold Levine. "Our efforts with this conference to share hands-on methods for bringing Shakespeare to life for students is just one way artists and teachers can work together to reverse this trend."

All of the organizers believe that through performance, students and teachers begin to live Shakespeare, to play with language in ways that are fun and extremely powerful, and to break out of the staid tradition of reading Shakespeare in a vacuum.

"We know that teachers are hungry for stimulating professional development that they can take back to their classrooms," said Levine. "Nearly every one of the 80 teachers who attended the first conference said they had never attended training that was so rich with possibilities."

For more information on the first conference and instructions on how to register for the January 2013 conference, visit <http://shakespeareplays.ucdavis.edu>



### Globe Academy for Teachers

In another unique approach to professional development in Shakespeare, The Globe Academy for Teachers—a partnership among the Robert and Margrit Mondavi Center for the Performing Arts, the School of Education, Globe Education (Shakespeare's Globe Theatre in London), and the Los Rios Community College District—provides in-depth learning opportunities for drama and English teachers of grades 7-12.

Now entering its fifth year, the program enrolls 12 teachers each spring to participate in workshops with their students at UC Davis and other locations. The workshops are presented by UC Davis Theatre and English Department faculty, and by visiting practitioners from Globe Education in London.

In the summer, teachers spend two intensive weeks at Shakespeare's Globe Theatre in London, working with theater professionals on a particular play. In the fall, teachers return to their schools with a piece of one of the plays to work on with their students. All teachers and students then come together in November at the Mondavi Center to perform the play in its entirety.

# CALIFORNIA AFTERSCHOOL NETWORK

## Plays Major Role in STEM Education Outside of Classroom Instruction

### The JumpStarting STEM Pilot Under Way


With support from the California Department of Education’s After School Programs Division, the California AfterSchool Network has implemented a pilot JumpStarting STEM initiative that will link to the Network’s longer term efforts to increase high quality STEM learning experiences for California’s youth in out-of-school-time (OST) programs. As part of the project, youth in participating programs received either 30 or 60 hours of STEM curriculum in this school year alone. This was accomplished by connecting program staff to high quality curriculum and professional development.

More than 250 individual after-school program sites from approximately 17 unique programs from all 11 regions of California are participating in the JumpStarting STEM initiative. Program participation involves connection to high quality curricula and ongoing in-person and virtual professional development opportunities for those implementing STEM at their sites and those (such as program directors) who support those implementing at their sites.

In the current school year alone, 500 trainings have been provided in all of the 17 participating programs. These trainings were provided on curriculum such as After School KidzScience, After School KidzMath, Techbridge, Project WET (Water Education for Teachers), Project WILD (Wilder-




ness In Learning Design), Project Learning Tree, NASA From Out of School to Outer Space and Space School Musical, Center Stage, TechXcite (a pilot curriculum being created by Duke University with National Science Foundation funding), Fantasy Baseball (a math curriculum studying ratios, averages, and probability utilizing baseball statistics), as well as 4-H Junk Drawer Robotics.

Evaluations indicate that staff who received training under the JumpStarting STEM initiative overwhelmingly agree that they are prepared and motivated, with increased confidence to offer STEM programming to the youth participating in their programs. 

### The California Afterschool Network STEM in Out-of-School Time Initiative

With support and partnership from the S.D. Bechtel Jr. Foundation, the Noyce Foundation and the Samueli Foundation, the California Afterschool Network is working to increase opportunities for high-quality STEM learning for youth in California’s Out-of-School Time (OST) programs that meet the following criteria:

- Student-centered
- Inquiry and project-based
- Engaging
- Complimentary to academic curriculum
- Integrates diverse subject matter
- Equitable and accessible for all students

In the initiative’s first year, project staff are developing statewide support systems to actively support regional, virtual evaluation and communications activities through the development of Regional STEM Innovation Support systems. Additionally, innovative STEM in OST programs will be launched at afterschool sites throughout the state to build experience and provide the basis for broad expansion. A Virtual Support Center is under development as a nexus for online tools and professional development. 





## CRESS Center Hosts Third Annual EQUITY SUMMIT

More than 200 educators, youth service providers, and community activists attended the CRESS Center's 3rd Annual Equity Summit in March. This year's theme was Equity, Education, and Incarceration: What is California's Future?

The program offered a provocative platform that elevated the voices of the incarcerated, focused on best practices, and analyzed current regional, statewide, and national data.

"The cost of incarceration in California and nationally is deadly," said Vajra Watson, director for research and policy for equity in the CRESS Center. "It affects our economic system, families, schools and broader efforts for social advancement. We are all at risk, and we must think anew with one another."

Keynote speaker, James Bell, Director of the Haywood Burns Institute, set the stage with some stark statistics:

- 1.5 million people are graduating from college per year in the U.S.
- 2.5 million people are in prison in the U.S.
- Every 29 seconds a student drops out of school in the U.S. This rate has the U.S. hovering at about 30 percent. China's drop out rate is 3 percent

"We must disrupt the pipeline between schools and prison," said Bell. "This requires us to reject the deficit-based view of communities."

An afternoon panel, titled "Breaking the Cycle of Incarceration: Lessons from the Frontline," featured community



James Bell

leaders and educators who were once incarcerated or served in the juvenile justice system and now dedicate their lives and work to serving at-risk youth. Ramona Bishop, Superintendent of Vallejo Unified School District, who facilitated the panel asked each to share the most striking thing they learned from their experiences.

George Galvis, a community activist who focuses on promoting nonviolent values and strategies to end violence, said, "I suffer from post-colonial distress disorder."

Morris "Geno" Frazier, an affiliate of gang prevention and youth development organization United Playaz, said, "The streets will always fund you."

Sammy Nunez, co-founder and executive director of Fathers & Families of San Joaquin, said, "I didn't know I was poor until I got to school."

Other members of the panel included Antonio Guterrez, retired probation officer, and Juan Gomez, a fellow at The California Endowment.

For the first time, participants were offered the opportunity to apply for mini-grants to allow them to create an equity-based program they could implement in their communities.

"One of our goals this year was to deepen collaborations and enhance local equity activities throughout the state by awarding up to \$10,000 in mini-grants to support local equity projects," said Watson. 📖



## CENTER FOR COMMUNITY SCHOOL PARTNERSHIPS

### Teams Up with CA Department of Health

The Center for Community School Partnerships, in the School of Education's CRESS Center, is partnering with the California Department of Public Health to empower school age youth to make healthy choices about food and exercise. The work is supported through a \$1.8 million interagency agreement.

As a new partner in the California Department of Public Health's Network for a Healthy California, the CRESS team faces a tight schedule to fulfill the nine-month contract.

The team, including staff from the School's Center for Education and Evaluation Services, will assess initiatives and evaluate programs



Renee Newton

already in place under the Supplemental Nutrition Assistance Program – Education (SNAP-Ed). Work is slated to be complete by this fall. A final report will contain recommendations for best practices and efficiency, geared toward California's future investment in the Nutrition Education and Obesity Prevention Program (NEOP).

“Our team is excited about this opportunity to partner with the Department of Public Health as we work together to find innovative ways to increase young people's lifelong health and overall well-being as it relates to learning and student success,” said Renee Newton, interim director of the CRESS Center. 📖

## CENTER FOR APPLIED POLICY IN EDUCATION

### (CAP-Ed) Update

#### Superintendent Executive Leadership Program Adds Instructional Rounds to Repertoire

The Center for Applied Policy in Education (CAP-Ed) just completed its fourth year of the Superintendent Executive Leadership Forum (SELF), which included school district superintendents from the greater Sacramento, East Bay, and Napa-Sonoma regions. Demand has remained steady for SELF, which launched in 2009 to help district and county superintendents meet periodically in small cohorts over a school year to network and consult with prominent educators, scholars and researchers. CAP-Ed hopes to welcome a fifth SELF cohort in 2012-13.

CAP-Ed hosted a three-day training on instructional rounds for 180 participants from the Northern California region in early May. The training began at UC Davis with a day of learning about instructional rounds with Professor Richard Elmore. Elmore is a regular session leader for SELF, the Gregory R. Anrig Professor of Educational Leadership at the Harvard



Fourth SELF cohort members share ideas.

Graduate School of Education, and a progenitor of the instructional rounds approach. Two days of on-site practice using the rounds strategies were then held in the East Bay and Tahoe-Truckee areas and were co-facilitated by a former SELF superintendent who has strong expertise in instructional rounds and Julie Maxwell-Jolly, CAP-Ed's managing director. 📖

## School of Education Faculty and Students Offer “UC DAVIS 101” SEMINAR

In response to questions raised by students about how the University of California is funded and governed, the School of Education and the Education Graduate Student Association hosted “UC Davis 101,” an open seminar for students, staff and faculty, in February.

The seminar sought to answer the following questions:

- What is Proposition 13 and what are its implications for higher education funding?
- How does UC function as a state agency? What are the roles and responsibilities for UC governance and budget of the president, chancellors, governor, legislature and others?
- What is the history of tuition at UC, and how does UC tuition compare with other public higher education institutions?



- Where does the funding for UC Davis come from and how is it spent?

School of Education professors Cristina González, Michal Kurlaender, and Tom Timar gave brief presentations in their areas of expertise: UC history and governance, tuition and fees, and UC governance and financing, respectively. Kelly Ratliff, associate vice chancellor for budget resource management at UC Davis, provided an explanation of how UC Davis’s budget is put together and managed.

Check the UC Davis Provost’s website at <http://provost.ucdavis.edu/future/past-events.html> to watch the seminar in its entirety. 📺

## Annual CHILDREN’S LITERATURE LECTURE SERIES Hosts 8th Author



Nearly 700 children and their teachers attended the School’s eighth annual *Words Take Wing: Honoring Diversity in Children’s Literature* lecture in February thanks to many generous donations of individuals and organizations, including faculty and staff, the Davis Kiwanis Club and the Woodland Sunrise Rotary Club.

The annual celebration of children’s literature, sponsored by the School of Education and the Children’s Center at Sutter Medical Center, Sacramento, featured award-winning author Ying Chang Compestine. The author of numerous picture books, young adult novels, and cookbooks for adults, Compestine’s most widely acclaimed book is *Revolution is not a Dinner Party*.

Compestine was born and raised in Wuhan, China. Drawing on Compestine’s childhood experiences and described as “Anne Frank in the Cultural Revolution,” *Revolution is not a Dinner Party* has received more than 30 awards, including the California Book Award, ALA Best Books and Notable Books and the San Francisco Chronicle Best Children’s Fiction Book.

In *A Banquet for Hungry Ghosts*, Compestine uses tantalizing recipes as a common thread to cook up a unique offering of eight compelling ghost stories. All the Chinese ghosts in these stories have as strong a desire for revenge

as for delicious food. Nearly all of her children’s books feature food and often come with a recipe at the end. Her latest children’s picture book is *Crouching Tiger*.

In her talks, Compestine shared her journey as a writer, how her life in China inspired her writing, and the challenges of writing in her second language. 📺



Ying Chang Compestine (seated) poses with high school students who attended her evening lecture. Susana Aguirre (far right) created the artwork for the event’s promotional poster.

## KLC Adler Illustrator/Writer-in-Residence SHARON CREECH

By Heidi Sciotto

Sharon Creech, internationally acclaimed novelist and poet, is the School of Education's 2011-12 KLC Adler Illustrator/Writer-in Residence.

Born in Ohio, Creech taught English and writing for 15 years in England and Switzerland before writing her first novel. Initially writing for adults, Creech penned *Absolutely Normal Chaos*, her first novel for young people, and found her genre. "I love and adore children," she said. "Their imaginations are so profound if we stop and listen."

Varying her writing style, Creech has written books such as *Love That Dog* and *Heartbeat* in poetic verse while books like *Ruby Holler* and *Walk Two Moons* are in narrative style. Yet similar themes proliferate her works. "The circumstances of fate and the paths we take shape us, and that always interests me. This exploration is in everything I write," she said. Creech often embeds serious topics into her stories for young people, including themes such as independence, trust, childhood, adulthood and death, often using humor to soften them.

In her workshops with School of Education teaching credential students this spring, Creech led a "free writing" exercise designed to extract detailed, descriptive imagery. She then asked them to write a short poem with those particular descriptions, using a William Carlos Williams poem "The Red Wheelbarrow" as their guide. His poem starts with the sentence "So much depends upon." "It seems we can sum up big events in our lives, at any age, with a

small descriptive picture," explained Creech. The student teachers in turn took this exercise to their own K-12 classrooms to strengthen their students' writing skills in both narrative and poetic verse styles.

"This is such a unique opportunity for our student teachers," said Rebecca Rosa, lecturer/supervisor of the social science credential program. "I don't think any other teaching credential program in the country can offer this kind of experience."

*Walk Two Moons*, Creech's first book published in the United States, won the 1995 Newbery Medal and several other international awards. She received the 2001 Newbery Honor Award for *The Wanderer*, and *Ruby Holler* garnered the 2002 Carnegie Medal, a prestigious British literary award. *Absolutely Normal Chaos* and *Bloomability* also won international awards. For more information and teaching resources, visit Creech's website at <http://sharoncreech.com>.

The Illustrator/Writer-in-Residence program was established through a generous gift to strengthen teachers' instructional options, student learning, and the ability to foster the development and exercise of the creative arts in classrooms. 📖



Sharon Creech

### **Distinguished Educational Thinkers Series: John Q. Easton, Director of the Institute of Education Sciences**

After a full day of meetings with the governor, representatives of the CA Department of Education and School of Education faculty and graduate students, Dr. John Easton gave a talk as part of the School's and Graduate Group in Education's Distinguished Educational Thinkers Series.

Easton provided an overview of the priorities for the Institute of Education Sciences, housed in the U.S. Department of Education, and shared his own



John Q. Easton

thoughts on educational research needs that our faculty and students could meet.

"Two areas where we desperately need research is in teacher evaluation and noncognitive student outcomes," said Easton. "Districts have a crying need for effective ways to look at these very complex issues, fraught with technical and ethical questions."

Professor Jamal Abedi kicked off the talk with an acknowledgement of the import of Easton's visit to UC Davis. "There are over 4,500 major higher education institutions in the nation, and all would love to have the pleasure of Dr. Easton's visit," said Abedi. "As a member of the UC Davis community I am so grateful to Dr. Easton, who oversees four major national centers of research. Given his extremely busy schedule, allocating two full days of his time to this event is truly amazing."

# Learning to LIBERATE

In April, Vajra Watson, EdD, director of research and policy for equity in the School's CRESS Center, made a presentation on her recently released book, *Learning to Liberate: Community Based Solutions to the Crisis in Urban Education*. The talk was co-sponsored by the Education Graduate Student Association and the Committee for Social Justice in Education.

Watson's book explores how four community educators were able to effectively serve the hardest to reach youth in the most challenged communities in the Bay Area. Watson began her research with a desire to find those who were reaching the "roughest and the toughest, who were doing this work best and changing lives," she said.

After three years of ethnographic research, Watson reflected on her own experience as a loving and dedicated teacher in the inner city. "What I came to realize about myself as a teacher was that my love was sometimes a doorway to low expectations," said Watson.


*Learning to Liberate* documents Watson's extensive research on how each of the community educators, who all brought different strengths to their work—from a focus on communication to community building to compassion and commitment—never lowered their expectations for the youth they served, yet found ways to inspire, empower and motivate them to turn their lives around. Ultimately, Watson identifies ten values each of the educators share and what classroom teachers might learn from them to change the way they interact with their most challenging students.

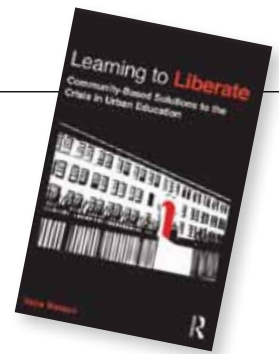
"To excavate the sheer possibility of transformative teaching and learning, I left the schoolhouse and went into the neighborhood to search for answers," said Watson. "I went on a journey to try to uncover and understand solutions—searching for pockets of hope that would illuminate social justice."

Her research questions included:

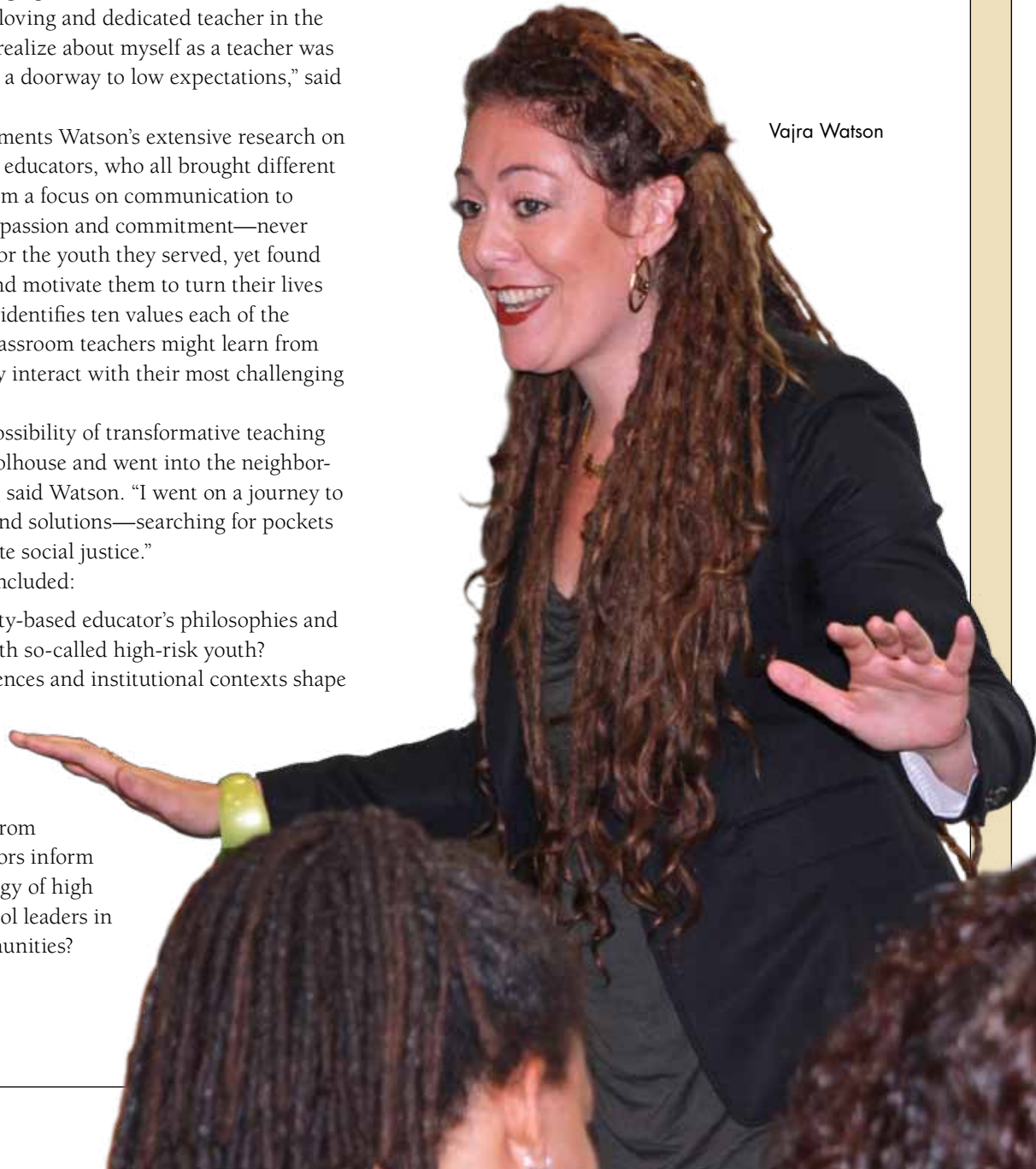
- What are each community-based educator's philosophies and strategies for working with so-called high-risk youth?
- How do personal experiences and institutional contexts shape and influence the ways these educators engage youth?
- In what ways, if at all, can the lessons derived from the work of these educators inform the practices and pedagogy of high school teachers and school leaders in low-income urban communities?

What she found were people who "did not drink the cool-aid of inadequacy. They demonstrate on a daily basis that it is possible to actually leave no child behind," she said.

*Learning to Liberate: Community Based Solutions to the Crisis In Urban Education* (Routledge 2012) is available at <http://www.routledge.com/books/details/9780415898379/> 



Vajra Watson



## Inaugural “DINNER WITH A SCIENTIST” Inspires 7th–12th Graders to Pursue Careers in Science

**I**n May, more than 200 students, teachers, and scientists met in North Sacramento to break bread and talk science.

With its first Dinner with a Scientist event, the Sacramento Area Science Project (SASP) and its partner the Powerhouse Science Center, launched an exciting opportunity for junior high school and high school STEM (science, technology, engineering and math) teachers and their students in the Greater Sacramento Region to meet and eat with real world scientists.

Students and teachers from Twin Rivers, Sacramento City, San Juan, Elk Grove, Folsom Cordova, Washington, El Dorado, Placer, Nevada, Sutter and Yolo school districts gathered for dinner and conversation with scientists from industry, academia, nonprofit agencies, and the public and private sectors. Nurses, astro-physicists, doctors, ichthyologists, other STEM specialists and university researchers shared information with small groups of students about their journey to becoming scientists and their passion for what they do.

The concept is simple. The potential impact is unlimited.

“The hope is that these kids will be inspired by people who have done great things in science,” said Michele Wong, interim executive director of the Powerhouse Science Center. “We hope they can see that studying science can lead to exciting career opportunities.”

The evening began with a fun “Science Challenge”—a short but lively scientific knowledge competition—facilitated by Laura Skirde, meteorologist at Sacramento’s CBS affiliate. Afterward, teachers and teams of five to six students ate dinner with a scientist of their choice. After dinner the students changed tables for dessert and talk with a different scientist.

The keynote speaker was Leon Hall, director of scientific operations in vivo pharmacology services at the Jackson Laboratory, West. Hall, who was born in Jamaica and lived in England and Canada, told the students about his personal journey from poverty to a PhD and a career in biomedical research.

“I’m taking part in this event because I recognize kids in our local community who think that because their parents aren’t wealthy, they can’t be what they want,” said Hall.

He told the students: “My parents never finished high school. They were not wealthy. But they worked hard, and they challenged me to challenge myself. You may see walls in front of you, but you have got to make the decision that nothing is going to stop you. So you want to be a scientist? Do it. We are on the cusp of major breakthroughs in science and you will be the generation that will make those breakthroughs.”



Scientist shows special underwater camera to a student attending Dinner with a Scientist.

Arthur Beauchamp, SASP director, is quick to point out that the event is inspired by a similar events hosted in Stockton over the last decade. “We intend to run three to four of these per year, moving the event to different venues and bringing in more students,” he said. “This effort also provides a nice opportunity for us to reach out to more scientists and to engage them in the effort to influence STEM education.”

A sampling of some of the conversations among the scientists and the students revealed a wide range of

interests and messages from the scientists.

- Maureen Stanton, ecologist and evolutionary biologist, answered questions about the DNA of grasses and fungi.
- Kelly McDonald, microbiologist and food scientist, talked about why she may work for 15 hours in her lab, not because she has to, but because she loves her work.
- Ronald Coleman, ecology and fish behavior expert, showed students how an underwater camera and lamp work, and that at 50 feet underwater, in total blackness, you need a reliable lamp.
- Peter Schiffman, a geologist, answered questions about a rock he brought with him, explaining where it came from and how it was formed.

“Good science is all about asking great questions,” Ray Burnell, deputy executive director for education & public affairs at the Powerhouse Science Center, told the students. “This evening you get a chance to ask all the questions you can think of.”

## Bold Aspirations for THE CAMPAIGN FOR UC DAVIS

Through The Campaign for UC Davis—a university-wide initiative to inspire 100,000 donors to contribute \$1 billion in philanthropic support—UC Davis is expanding its capacity to meet the world’s challenges and educate future leaders. The campaign is the university’s first comprehensive fundraising effort, and it creates an unprecedented opportunity to extend the university’s influence, both locally and globally.



**In the campaign, the School of Education has an historic opportunity to achieve its vision**—by helping the most promising students to learn and discover here; by supporting our faculty and staff as they innovate, research, teach and serve the public; and by empowering our alumni

and supporters to succeed and create opportunities for engagement with the School.

The School of Education has set an ambitious goal of \$16 million in The Campaign for UC Davis. We have made significant progress toward our goal—as of June 4, 2012, surpassing \$11.5 million in philanthropic support—thanks to many of you.

In fact, **alumni and friends of the School have generously donated nearly \$2 million of this total** since The Campaign began in 2006.

We have bold aspirations for the School of Education, and we ask you to be equally bold as you think about how you can engage and make an impact with students, faculty and programs at the School. **We invite you to join us.**

For more information, contact Adrienne Capps at (530) 754-7024 or at [adcapps@ucdavis.edu](mailto:adcapps@ucdavis.edu)

### Alumnus Establishes Endowment to Support PhD Math Educators

**Anthony Barcellos** (PhD '05), a long-time mathematics professor at American River College, created a new scholarship endowment to support one or more students enrolled in the PhD program at the School of Education. He is particularly interested in supporting the School’s recruitment efforts for new PhD students into the Math Education Emphasis Area.

“The UC Davis School of Education has enriched my personal and professional life, having given me the opportunity to delve into the wonderful complexities of teaching and learning,” said Barcellos. “I am pleased to have this opportunity to give something back to the School by encouraging its future graduate students.”

### Pattens Grow Scholarship Endowment

In an effort to make more support available to UC Davis students, **Nancy Farrer Patten** (BS '74, Credential '75) and **Tom Patten** (BS '74, MS '76 College of Engineering) recently provided a generous gift to grow student scholarship endowments that they previously established at the School of Education and the College of Engineering.

“UC Davis has given so much, and we want to give back,” said the Pattens. “We are happy to help students at UC Davis with our gifts to the School of Education, and to the College of Engineering.”



Tom and Nancy Patten with teaching credential graduate Jesse Smith (center), the 2011-12 Farrer/Patten Award recipient.

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# Catalyst

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## Save the **DATE**



### FALL WELCOME TO CELEBRATE 10 Year Anniversary

The School of Education will kick off a year-long celebration of its tenth anniversary. Mark your calendars for September 24 to attend this special Fall Welcome event on campus.

2002 ~ 2012

**UC DAVIS SCHOOL OF  
EDUCATION  
10<sup>TH</sup> ANNIVERSARY**

### Invest in the School

Please consider a gift to the School of Education in support of our efforts to catalyze change in teaching and learning.  
[education.ucdavis.edu/giving](http://education.ucdavis.edu/giving)

### Keep in Touch

Alumni and friends, please let us know about your accomplishments and other news by sending us updates at [ed-alumni@ucdavis.edu](mailto:ed-alumni@ucdavis.edu)



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