

Catalyst

SPRING 2013



Eliminating Inequities
in the Schooling and
Learning Opportunities for
Diverse Learners:

The School's Next Ten Years

And Now for the Next Ten Years...

If a parent came to you and asked ‘How will your work help my child?’ what would you answer?’ This is the question that one of my colleagues in the School of Education posed during a recent discussion of which finalist was the best fit for a new faculty position. It’s a good question, a great question. It’s the right question. How would each of us in the School answer it?

I have come to believe that keeping that question front-and-center in each and every one of our programs in the School of Education is, without embroidery, the right thing to do. It will keep us focused. It will lead to the best outcomes for all learners. And it will also allow us to become nationally prominent by being regionally relevant... by doing the right thing. I know all of us in the School believe that this commitment to serving children and families and communities should be our guidepost for the next ten years—and beyond.

The School of Education has been thinking ahead, informally but also as part of a formal strategic planning exercise for the next phase of our growth. We have re-examined the values and core beliefs that inform our work—in short,

what we stand for. The outcome of this organizational self-reflection has resulted in recasting our vision for why we do this work: **we must eliminate inequities in the schooling of and learning opportunities for diverse learners** by advancing the power of knowledge and the promise of education.

Of course, realizing this vision in today’s complex world won’t be easy. No one said it would be. And it is abundantly clear—despite the contrary rhetoric of innumerable “reformers” who have captured the media’s attention—that there is no silver bullet to make things right for California’s and America’s disenfranchised learners. The practice of finding scapegoats to account for public education’s problems has had a pernicious effect by isolating and dividing educators and other professionals whose help is critical to making change happen. The School of Education will have to continue looking outward to partner with those who have the same commitment to eliminate inequities and implement real solutions.

To make a difference for all learners, we must operate at multiple levels in and out of schools. We must apply tested approaches but also assert ourselves boldly in trying what is new and potentially game-changing. The School takes this need for multiple, and parallel, efforts seriously. Within schools, we already have substantial programs that impact students directly, that both prepare and further the skills of some of California’s best teachers, and that address the needs of both site- and district-level administrators.

But even these efforts are not comprehensive enough. Faculty and staff at the School must continue our work to build and empower communities, to develop and improve out-of-school learning opportunities, and to do scholarly work that will inform policymakers and field-based educators with sound and timely research.

And finally, looking forward to the next ten years, the School must continue to take risks, scan the environment for ways that our skills and expertise can be helpful, and think entrepreneurially to provide resources for solutions that education’s great challenges require.

We have ten years of hard-earned experience behind us. We will leverage what we have learned to realize our vision. This is our commitment.

– Dean Harold Levine

Photo by TJ Ushing/UC Davis

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Catalyst



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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.

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- twitter.com/UCDEducation
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School Launches *New* Alumni Association

The UC Davis School of Education is pleased to announce the creation of the new School of Education Alumni Association (SOEAA). The SOEAA is housed at the School, but is strategically aligned with the UC Davis Cal Aggie Alumni Association (CAAA). With this new designation and this new CAAA partnership comes many great new services for educational alumni.

"Ours is the first official school or college chapter of the CAAA," said Adrienne Capps, assistant dean of development and external relations. "This means that we can now leverage CAAA events and marketing opportunities in ways that we could not in the past."

Your Alumni Network

All UC Davis School of Education graduates automatically become members of the SOEAA—*there are no dues or membership fees*. We are proud to offer a variety of opportunities through volunteer, professional development, and philanthropic programs that keep us all connected as a part of the UC Davis School of Education family.

The School has educated more than 7,000 teachers, counselors, researchers, and other education leaders. In all 50 states and more than 45 countries around the world, School of Education alumni are shaping better lives and creating brighter futures through education.

The SOEAA is organized with the assistance of a group of alumni volunteers who serve on the School's Alumni Council. Council members work closely with the School to identify needs and opportunities to support faculty, students, staff, and programs. They represent fellow graduates and ensure that alumni have a positive impact on the ongoing growth and development of the School of Education.



SOEAA Programs

- **Mentor:** Connect with School of Education graduate students and/or our charter school students at West Sacramento Early College Prep (grades 6-12) for career and education planning and support.
- **Hire:** Submit job postings for teaching and other education-related positions in your school or company.
- **Speak:** Share your experience and expertise in the classroom and through lectures, panels and speaking events.
- **Recruit:** Refer and encourage qualified graduate students for our Teaching Credential, Masters, EdD and PhD programs.
- **Network:** Join us at annual alumni events, such as Fall Welcome and the Honoring Educators Awards Ceremony, as well as student events, such as orientations, career fairs, research presentations, and graduation.
- **Give:** Support the School's Annual Fund, which provides student scholarships for future teachers, researchers and educators as well as supports key initiatives that engage alumni and the broader community in our mission.
- **Serve:** Build future programs for the SOEAA by participating on Alumni Council committees or as a Council member.
- **Nominate:** Submit nominations through our annual Honoring Educators Awards Ceremony for outstanding students, alumni, faculty or education advocates who work to effect positive change in schools, colleges, and universities in our region and beyond.
- **Share:** Send us a note about your recent professional and personal accomplishments so that we can share your story with others.
- **Learn:** Attend lectures, conferences, and other professional development opportunities to continue your own education.
- **Join:** Become a member of the Cal Aggie Alumni Association. Use membership offer code (SOE13) and a portion of your membership will support the School of Education. Recent alumni (within one year of graduation) will receive a discount. Go to <http://www.alumni.ucdavis.edu> for more information.

Council Members

- Sandi Redenbach (BA '72, Credential '73), Chair
 Patrick Bohman (Credential '07, MA '08), Vice Chair
 Marlene Bell (BA '68, Credential '71)
 José Bermudez (Credential '06, MA '07)
 Bill Cochran (BS '73, Credential '74)
 Sue Colombano (BA '70, Credential '71)
 Fadia Desmond (PhD '04)
 Roy Engoron (BA '62, MA '65, Credential '66)
 Sharon Rose (BS '60, Credential '61)
 Lisa William-White (Credential '99, PhD '03)
 Carolyn Zachry (EdD '09)

Stay Connected

For more information about upcoming networking events, lectures, volunteer activities, and professional development opportunities, please contact Doreen A. Barcellona, associate director, alumni and external relations, at dabarcellona@ucdavis.edu or (530) 754-2131, or visit <http://education.ucdavis.edu/alumni>.



Alumni Council: Update from the Chair

Sandi Redenbach (BA '72, Credential '73)



Sandi Redenbach

The Alumni Council, now in its fifth year, has a lot to celebrate. In the last two years, the Alumni Council has been working on some very big ideas. First, we created bylaws to formalize our roles and responsibilities. In that process, we also created the Alumni Council Scholarship. I'm proud that all Council members have pledged to make a gift each year that together will support one Teaching Credential scholarship.

We have also been busy building the foundation for the new UC Davis School of Education Alumni Association (SOEAA). The goal has been not only to keep alumni involved, but also to create a larger sense of community—a professional home for alumni and a place where they can interact with each other as well as with students and faculty, and have access to professional development and educational opportunities.

I am very proud that our SOEAA will actually be the first school or college chapter of the UC Davis Cal Aggie Alumni Association (CAAA). This means we will have access to a whole

host of resources in terms of marketing and communications and events support. All education alumni are automatically members of the SOEAA (see pp. 4-5 for more details).

In the coming year, we will be working hard to develop new programs and benefits to connect and reconnect our alumni. One program has already started with alumni mentoring students at the School's charter school, West Sacramento Early College Prep, to help them make the transition to college. We are looking forward to building many new programs and initiatives and welcome your thoughts and ideas.

I want to encourage alumni who are interested in serving on the Council or getting more involved in our programs and events to contact me at ed-alumni@ucdavis.edu.

We're Nearly There: Update on the UC Davis School of Education's Progress in The Campaign for UC Davis

Thanks to the steadfast support and generosity of people and organizations who care about education and believe in the UC Davis School of Education's commitment to put the power of knowledge to work for all learners, we are very close to reaching our goal of raising \$16 million in The Campaign for UC Davis.

The Campaign for UC Davis is a university-wide initiative to inspire 100,000 donors to contribute \$1 billion in philanthropic support. Through this effort, 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 support-



ing 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 set an ambitious goal of \$16 million in The Campaign for UC Davis, and we have made significant progress toward reaching it. As of **May 22, 2013**, campaign gifts to the School have **surpassed \$15.4 million** in philanthropic support—thanks to many of you. In fact, alumni and friends of the School have generously donated nearly **\$3.6 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 on 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.

Alumni Updates

LeAnn Fong-Batkin (EdD '11) presented "Racial Microaggressions in California Community College Administration: The Leadership Experience of Women of Color" in November 2012 at the Association for the Study of Higher Education's Council on Ethnic Participation. The study analyzes the career trajectories and sources of support for 13 California community college women of color administrators and the effect of racial microaggressions and offers strategies that subjects used to overcome major obstacles in their journey to become administrators. Fong-Batkin is an education programs consultant at the California Department of Education.



LeAnn Fong-Batkin

Gouvea and Arash Jamshidi) at the Annual Meeting of the American Educational Research Association in April. Hedman is co-director of the Sacramento Area Science Project.

Mong Thi Nguyen (BA '04, PhD '12) presented "Language Learning and Reflection: Merging Intellectual and Creative Expressions Through Digital Storytelling" and "Mediated Documentation: How Multiple Forms of Media Are Helping Us Reveal New Ways to Frame Teaching and Learning" at the Annual Meeting of the American Educational Research Association in April.

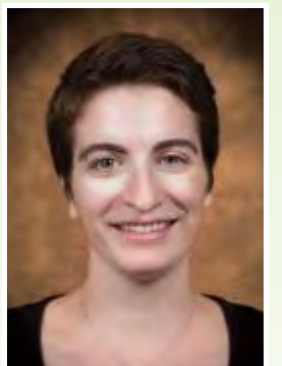
Irina Okhremtchouk (PhD '11) presented "Teacher Readiness to Work with English Language Learners: Arizona Context" (with PhD student George Sellu) at the Annual Meeting of the American Educational Research Association in April. Okhremtchouk is an assistant professor of education at Arizona State University.



Irina Okhremtchouk

Shonte Stephenson (MS '08, PhD '11) presented "Using Assessments to Capture Students' Understanding of Epistemic Commitments Across Content Areas and Time" at the Annual Meeting of the American Educational Research Association in April.

Marguerite Wilson (MA '08, PhD '12) presented "Metaphors We Learn By: Student Participation and Literacy Practices in New Mainstream Mathematics Classroom" (with PhD students Daniella Torres-Torretti and Orlando Carreón) at the Annual Meeting of the American Educational Research Association in April. Wilson is an assistant professor of human development at Binghamton University – SUNY.



Marguerite Wilson

Alumni Presenters at Annual Meeting of Education Researchers

Maria-Cecilia Gomez (PhD '10) presented "Exploring Academic Language in Exemplary Beginning Teachers Through a Constructivist Inquiry Approach" (with School of Education faculty Al Mendle, Barbara Merino, and Rick Pomeroy) at the Annual Meeting of the American Educational Research Association in April.

Mary Gwaltney (BA '91, PhD '12) presented "Reading Comprehension and Component Skills in Elementary and Secondary Students on the Autism Spectrum" (with School of Education professor Peter Mundy and PhD students Frances Holmes, Lindsay Swain, and Nancy McIntyre) at the Annual Meeting of the American Educational Research Association in April.

Rich Hedman (BS '89, MA '10) and **Lin Xiang** (MA '05, PhD '11) presented "Examining How Teachers' Understanding of Models Interacts with Their Beliefs and Intentions About Teaching Science" (with School of Education associate professor **Cindy Passmore**, physics lecturer Wendell Potter, Sacramento Area Science Project director Arthur Beauchamp, and PhD students Julia Svoboda

Resident Historian, Educator, and Campus Leader *to Retire*

After 35 years of service to UC Davis, **Barbara Goldman**, associate director of teacher education, will retire in June. She leaves behind a legacy that stretches far beyond her three decades of devotion to the campus and teacher education.

Goldman came to UC Davis in 1977, teaching in the Department of Behavioral Science in the College of Agriculture, where she taught undergraduate courses in program evaluation and teaching credential courses for more than 10 years. (During her first two years, she completed her PhD from Cornell.)

Her expertise in what was an emerging field, education evaluation and policy, and 10 years of experience on campus led then-Chancellor James Meyer to name her special assistant to the chancellor.

"Chancellor Meyer decided to invest in education, seeking to apply the agricultural extension model to increase education outreach to communities," said Goldman. "CRESS [Cooperative Research and Extension Services to Schools] was really his idea. This was the beginning of the campus's rethinking of the function of an education unit."

In her role as special assistant (she continued to teach part-time), Goldman drove the development of a new architecture for the disparate education functions that existed on the campus at the time. Through her efforts, most of the subject matter projects were brought into the CRESS Center, and all of the



What Her Colleagues Have to Say....

Perhaps no group of people understands the magnitude of Barbara Goldman's accomplishments better than the faculty of the School's teacher education program. Here are a few of the comments they made about her work, impact, and legacy.

"Barbara Goldman is the consummate leader—with her profound depth of understanding of the complexities involved in all aspects of teacher education, including recruitment, curriculum, policy, and accountability. She has an amazing ability to galvanize a team in which diverse perspectives are highly encouraged. Barbara's guidance has been a key lever to ensure that our programs not only meet the requirements of the California Commission on Teacher Credentialing, but also do so in ways that safeguard our philosophical tenets of reflection, collaboration, advocacy, and inquiry—consistently, and in the most effective way—through modeling, and with a door that is ALWAYS open. To say that she will be missed is a serious understatement. The only way one could feel more cared for by Barbara would require coming back in another life as a cat."

— Shannon Cannon, lecturer/supervisor, elementary teaching credential

"Barbara is a strong advocate for all of our teachers and for all students. She is compassionate, kind, keenly intelligent and gentle. She has been a real leader: speaking up for Teacher Ed whenever needed, listening carefully and generously whenever possible and guiding all of us who have the privilege of working with her in an amazingly effective way. She will be sorely missed."

— Beth Foraker, lecturer/supervisor, elementary teaching credential

"Barbara's approach to leadership—her combination of wisdom and humor—has left a lasting mark on our teacher education program faculty. The way we work together and toward common goals is in large part due to the structure and faith in our professional decisions that she provides."

— Pauline Holmes, lecturer/supervisor, English teaching credential

credential programs were merged into one teacher education department. Eventually, her work led to the formation of the Division of Education.

In the early 1990s, Professor Barbara Merino was named the first faculty director of teacher education. Goldman was named associate director, serving in that role for nearly 20 years. Goldman credits Merino's work to "take on a research-based profile" as the beginning of the intellectual and physical growth of the education program and eventual decision to transform the division into a school.

Together, Merino and Goldman weathered very constricted budgets in the 1990s when the Division of Education was almost eliminated. "Those were difficult times," said Goldman, "but as the budget got better, the campus recommitted to supporting the division and eventually invested in the School."

From its nascent beginnings through the tough budget years, Goldman was a steady hand steering the course of the teacher education program. Over the last 15 years, she has presided over unprecedented growth in the program, as well as mind-boggling changes in federal and state requirements for credentialing teachers. "The job has become much more complex," said Goldman. "There are more and more regulations, and the recent trend for assessment has led to a lot of reporting to state and federal agencies."

During her time as associate director of teacher education, the program's annual enrollment has grown from 94 to 154 this year. In all, Goldman has overseen a program that has graduated more than 2,300 well-prepared teachers for the state of

California. "Each and every one of these teachers came under Barbara's watchful eye," said Dean Harold Levine. "This impact on public education in our region and state is among Barbara's most visible and meaningful legacies. All of us who are committed to public education have much to thank her for."

In 2006, Goldman received the James H. Meyer Distinguished Achievement Award, among the most prestigious awards bestowed by the campus. Goldman was the 34th recipient of the award and only the second from the School of Education. Her nominator, Jim Grieshop, professor emeritus in human ecology, said, "I have always found Barbara to be very humble. She is never one to seek recognition for her work."

"For me it all boils down to the students, the students, the students," Goldman said on receiving the honor. "I am proud to work at a land-grant university whose obligation it is to solve the problems of the people. Attending to the education of children has to be right at the top of the list of issues to which the university must apply its talents and resources."

"Barbara has brought so many skills to teacher education, and the School of Education more generally, that it would be impossible to list them all," said Levine. "The associate director position is a demanding and complicated one, but Barbara has made it seem effortless because of her extraordinary organizational skills, her creativity in problem-solving, her ability to tackle the small issues while always keeping the big picture of teacher education in mind, and, of course, her common sense and great wisdom."

Education Professor Hosts Regional Workshop on Public Participation in Scientific Research

Associate Professor **Heidi Ballard**, an expert in environmental science education and Public Participation in Scientific Research (PPSR), hosted the first Northern California PPSR Regional Workshop at UC Davis in February.

With support from the S.D. Bechtel, Jr. Foundation, Ballard and PhD student Colin Dixon led more than 50 environmental program leaders and scientists in discussions on how best to engage non-scientists in research and conservation programs.

"It was exciting to host such a diverse array of organizations and people with varying levels of experience in working with non-scientists to do their work," said Ballard. "Our hope is that this is just the beginning of finding ways to learn from each other and to expand our understandings of the best ways to engage people in real-world science."

Represented projects addressed conservation, environmental stewardship, and environmental justice. The workshop was designed to allow attendees to share experiences, create connections between programs, and generate strategies for best practices that will move the rapidly expanding field of citizen science and organizations' efforts forward, individually and collectively.

Sessions included plenary talks, brief panel discussions, and break-out groups focused on key issues that project leaders confront, such as how to best structure participation in a project to meet goals, how to meet the demands of research and needs of the volunteers, and how to engage broader audiences in this work.

Workshop goals:

- To provide a forum to share and document best practices and begin to address key questions of the field.
- To help leaders in citizen science in the region build concrete plans, practices, and ideas to bring back to projects and volunteer communities.
- To outline future steps for collaboration across projects, and potentially including research about the practice and outcomes of citizen science for project leaders and participants.



Keynote speaker Allen Fish, director of the Golden Gate Raptor Observatory, emphasized the importance of vetting and training volunteers to ensure a good fit between the work of the organization and the interests and skills of the volunteers. "I call PPSR Public Empowered in Service of a Result," said Fish. "Good volunteer management does not take an impoverished view of volunteer activities. Make sure to communicate results clearly to volunteers because they really care about the data they collect."

Others, especially those working on local environmental justice issues, emphasized the need to create shared decision-making structures and flexibility to incorporate community goals outside the immediate scope of a project.

To learn more about the workshop and Ballard's work in this area, visit <http://education.ucdavis.edu/public-participation-scientific-research-ppsr>.



Heidi Ballard

Funding Schools Differently: A Report on Governor's Proposal for an Overhaul

In the complex world of school finance, there may be only one issue upon which researchers, administrators and policymakers agree: the way we fund schools in California is overly complex, often unfair, and downright cumbersome. Agreement on a fix is elusive. Proposed solutions abound.

The most recent proposed overhaul, offered by Governor Jerry Brown, received a thorough analysis by **Heather Rose**, associate professor in the UC Davis School of Education and adjunct fellow at the Public Policy Institute of California (PPIC), and Margaret Weston, PhD student in the School of Education and PPIC fellow. Rose and Weston have authored a report on Brown's proposed new school funding system, examining the relationship between funding and student poverty and addressing questions about converting the current school finance system to a weighted pupil formula (WPF).

Brown's solution would direct more revenue to California school districts serving greater numbers of economically disadvantaged students than other districts. All districts would receive the same amount of base funding per-pupil; however, schools that serve large numbers of students who are poor or English learners would receive substantially more. The assumption is that more resources are needed in order for these students to achieve at rates comparable to more advantaged students. In addition, districts would continue to receive federal funds and a few special state funds (known as categorical programs), which also tend to provide more revenue to districts with more disadvantaged students.

Rose and Weston's study acknowledges that the link between resources and outcomes is "uncertain." Research has not provided a clear picture of the ideal funding formula needed to close the achievement gap among students; nonetheless, they argue that lawmakers have an obligation to simplify the school finance system to ensure fairness and

reduce inequities. Brown's proposal is a good start, providing a "very explicit and simple formula."

The lack of a clear link between resources and outcomes, "is no excuse for avoiding the hard work of improving our current finance system," they write. "A strong finance system is an essential component of a strong education system."



Heather Rose

Brown's solution would direct more revenue to California school districts serving greater numbers of economically disadvantaged students than other districts.

Rose and Weston have presented this work in the following venues:

- UC Davis Center for Poverty Research, Oct. 26, 2012, Davis, CA
- Assembly Democratic Caucus Policy Summit, Feb. 27, 2013, Sacramento, CA
- Senate Budget and Fiscal Review Committee, Feb. 28, 2013, Sacramento, CA
- Association of Low Wealth Schools, March 4, 2013, Sacramento, CA
- Senate policy committee, March 5, 2013, Long Beach, CA
- Association of Education Finance and Policy March 14, 2013 New Orleans, LA.
- Silicon Valley Leadership Group on April 4, 2013, in San Jose, CA

Download "California School District Revenue and Student Poverty: Moving Toward a Weighted Pupil Formula," published by the PPIC at <http://www.ppic.org>.

Dean Presents at International Conference on Innovation *and* Entrepreneurship



Harold Levine

In March, **Dean Harold Levine** made a presentation on “Research Universities as Drivers for Economic Growth and Development” in Madrid, Spain.

The conference, titled “Innovating and Entrepreneurship: Keys to the Future,” was organized to “transmit a message of optimism and hope as the best antidotes for the world economic crisis.” Hosted by Madrid Excelente, this was the Fifth International Conference on Excellence and featured university leaders, economists, policymakers, and business leaders.

Levine’s talk provided an overview of the impact research universities have on economic growth, job creation, and innovation. He discussed his views on the “new logic” of science for the public good. “Research universities are uniquely positioned to drive innovation and economic development through competitive research funding, ‘ecosystems’ that support research enterprises on campuses, and a culture shift on campuses that favors turning research knowledge into ‘usable’ knowledge,” said Levine. “Research universities are amazingly vibrant places for innovation.”

He shared specific information on the ways in which UC Davis has had an economic impact on California, resulting in \$6.9 billion in UC Davis-generated annual economic activity, over 68,000 people employed in Northern California because of UC Davis, and \$1.2 billion annually in goods and services directly supported in the Sacramento Region.

“Our vision is for UC Davis to be a global leader in research and technology transfer that lead to a better quality of life for all,” said Levine.

conference of the *Journal of Language and Literacy Education* in February. Seven of his paintings on immigration and schooling were displayed in an interactive exhibit and reception following his presentation. For more information on the conference program, visit <http://jolle.coe.uga.edu/2013conference>.

Professor Peter Mundy to Serve as Associate Editor for Autism Research

Professor **Peter Mundy** will begin a five-year term as associate editor for *Autism Research*, published by John Wiley & Sons, beginning in June 2013. *Autism Research* is the official journal of the International Society for Autism Research (INSAR). For more information on the journal, visit <http://onlinelibrary.wiley.com>.

Jamal Abedi Recognized for Outstanding Scholarship and Service

The National Association of Test Directors has selected Professor **Jamal Abedi**, an internationally respected scholar in educational testing and assessment, for one of two 2013 Outstanding Achievement Awards. Dr. Zollie Stevenson of the U.S. Department of Education nominated Abedi for the honor.

Professor Chris Faltis Delivers Keynote at Literacy Conference

Professor **Chris Faltis**, the Dolly and David Fiddymont Chair in Teacher Education, gave the keynote address at the inaugural

Rough Transitions: Studying College Preparedness in California



Michal Kurlaender

Many students arrive at college unprepared to do college-level work, and most of the time they don’t even know it.

In a recent study, UC Davis School of Education associate professor **Michal Kurlaender** and postdoctoral fellow Matthew Larsen of Tulane University revealed that the pathway from high school to community college in California is littered with misalignment and dashed expectations.

“Students may only come to an understanding of the academic demands of college after they enter college,” the researchers write. Consequently, many entering freshmen (up to two-thirds at community colleges) must take developmental courses before moving on to the required courses for transfer to four-year institutions. Having to take courses covering material that should have been mastered in high school is costly to both students and the state, can delay students’ ability to complete a degree in four years, and even lead to low self-esteem.

Worse still, the researchers found a significant gap between developmental course-taking of African Americans and Latinos versus white and Asian students. Even among groups of students who achieved at similar levels in high school, there is a gap in the percentages of transferable courses from community college to the California State University taken by each ethnic/racial group.

“We find important differences in the fundamental relationship between prior achievement and postsecondary outcomes by race,” write the researchers.

“White and Asian students consistently have higher rates of transfer-level course-taking, lower rates of basic skills course-taking, and higher grades than their Latino and African American counterparts at similar levels of prior achievement.”

Ultimately, the researchers recommend that leaders in the K-16 system do a better job of aligning assessments across the system to ensure that students are better prepared to succeed academically in college.

“There is a great need to understand the complex transition students face from secondary to postsecondary study, and the conditions necessary to ensure more students persist in college,” said Kurlaender, an expert on college attainment and persistence.

Read “K-12 and Postsecondary Alignment: Racial/Ethnic Difference in Freshmen Course-Taking and Performance at California’s Community Colleges,” published in *Education Policy Analysis Archives* at <http://epaa.asu.edu/ojs/article/view/1195>.



School Receives Two Awards from the Council for the Advancement and Support of Education

The UC Davis School of Education was awarded two Bronze Awards from CASE (Council for Advancement and Support of Education) in March for writing in this magazine, the *Catalyst*, by editor Donna Justice, and for two fundraising brochures created for the School’s Dinner with a Scientist and the Guardian Teacher Scholarships programs.

Mathematics Professor
and Teacher Educator

TEAM UP TO TACKLE A
CHALLENGING
CONCEPT

Al Mendle, lecturer/supervisor in the elementary credential program in the UC Davis School of Education, and Kurt Kreith, UC Davis professor emeritus in mathematics, have teamed up to provide student teachers with a new way to teach negative numbers, or integers.

Kreith approached Mendle about a new way he was thinking about representing integers that might help teachers explain the concept better. Mendle said he was “intrigued. It really was a way to clear up some ambiguities that can often be confusing to students and teachers.”

As a result, the two jointly taught a session on integers to student teachers in Mendle’s Elementary Mathematics Methods course.

“Even though our session was on a Friday afternoon, from 1:30 to 3:30, it was clear that most of my 72 students were engaged and thinking about mathematics in a more profound way,” said Mendle. “Many came to me after class and said, ‘I wish I were taught that way.’ Others actually used the ideas in their presentation of integers to their upper grade students.”

Eventually, Kreith and Mendle wrote an article “Toward a Coherent Treatment of Negative Numbers,” published in the *Journal of Mathematics Education at Teachers College*, Spring-Summer 2013.

In the article’s abstract, the authors note, “the transition from whole numbers to integers involves challenges for both students and teachers. Leadership in mathematics education calls for an ability to translate depth of understanding into effective teaching methods, and this landscape includes alternative treatments of familiar topics. Noting the multiple meanings associated with the horizontal bar that is often referred to as a ‘minus sign’ the authors introduce a novel notation intended to address this ambiguity.”



Al Mendle

“Even though our session was on a Friday afternoon... it was clear that most of my 72 students were engaged and thinking about mathematics in a more profound way.”

– Al Mendle

Agriculture Education Professor and Colleague Receive
Prestigious Grant from **VIETNAM**
Education Foundation

Cary Trexler, associate professor of agricultural education in the UC Davis School of Education, and his colleague Glenn Young, professor of food safety microbiology at UC Davis, have received a prestigious U.S. Faculty Scholar Grant from the Vietnam Education Foundation (VEF) for the 2013-14 academic year.

Trexler and Young were awarded a grant from the U.S. Agency for International Development (USAID) in 2010 to study and assist farmers in Vietnam and Cambodia in safe vegetable production. This ongoing research is conducted in partnership with teams of colleagues at Nong Lam University (NLU), Hanoi Agriculture University (HAU), and Royal University of Agriculture (RUA). (Learn more about this work at <http://education.ucdavis.edu/video/Vietnam>.)

The VEF grant will allow Trexler and Young to expand work they have been doing with NLU and HAU to develop U.S.-style curriculum and instruction in project-based teaching and learning intended to improve practices and outcomes in agriculture in Vietnam. They will teach a 15-week course, in partnership with Vietnamese teaching assistants, designed to help Vietnamese students learn by doing research in applied local contexts. Students will present their findings to farmers, local authorities, government officials, and scientists at the end of the course. In the process, the goal is for the students to work with local farmers and authorities to solve local problems in vegetable production.

Trexler, who received a Fulbright fellowship in 2007 to continue work with faculty at Nong Lam University, is an expert on agriculture and education in Vietnam. He has been working with university educators and agricultural extension specialists in Vietnam since 2004. The VEF grant will have Trexler returning to Vietnam in June to set up the course. Young will take over in December when Trexler returns to Davis.

“The VEF grant is comparable to a Fulbright, but for natural scientists,” Trexler said. “Glenn and I are both honored by this award and look forward to strengthening our work with Vietnamese universities and students through the work supported in the grant.”

In 2004, Trexler made his first visit to Vietnam. In 2006, he returned to continue work with agriculture education faculty from Nong Lam University in Ho Chi Minh City. Together they toured economically depressed areas of the country to identify where education and extension are most needed. To learn more about Trexler’s work in Vietnam, visit <http://education.ucdavis.edu/faculty-spotlight/cary-trexler>.

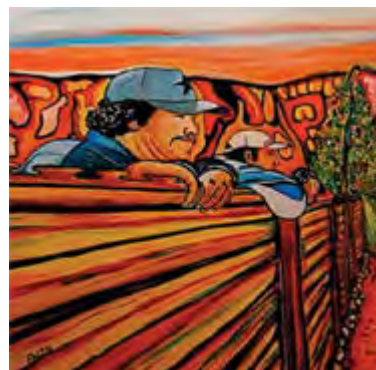


Cary Trexler, left



Professor Uses Own Paintings and Text to Expose Anti-Immigrant Discourse

Christian Faltis, the Dolly and David Fiddymont Chair in Teacher Education and director of the UC Davis School of Education's Teacher Education program, who is also an accomplished painter, wrote "Art and Text as Living Inquiry into Anti-Immigrant Discourse" for a special September 2012 edition of the *International Journal of Multicultural Education*.



Painting by Christian Faltis

In it, he examines the connections between art and text regarding the (mis)treatment of Mexican immigrants, particularly in schools. The paper discusses the harsh realities of anti-immigrant discourse through a series of his oil paintings created to depict selected issues of Mexican immigrant experiences. He argues that art expands the imagination of written text to provoke meanings that are interconnected to textual representation and, at the same time, creates openings for the unfolding of visceral sensations and critical meaning. Find the paper at <http://www.ijme-journal.org>.

Examining a Large-Scale Professional Development Program's Impact on Reading Achievement

Kevin Gee, assistant professor in the UC Davis School of Education, recently helped complete a large-scale study of the impact of a professional development program on reading achievement in Hawaii for the Institute for Educational Sciences.

This study examines the impact of the Pacific Communities with High Performance in Literacy Development (Pacific CHIL) professional development program on student achievement in reading comprehension and on teacher pedagogical knowledge and instructional practice in English language arts classes. Pacific CHIL is a two-year professional development program that trains fourth and fifth grade teachers in research-based reading comprehension strategies and instructional practices for enhancing student reading comprehension.

The study, which used a randomized design and involved 45 elementary schools across three entities in the Pacific region, found positive impacts of Pacific CHIL on reading comprehension and on teachers' instructional practices and knowledge of theories and strategies related to effective reading instruction. Find the study at <http://ies.ed.gov>.



Kevin Gee

UC Davis School of Education Professors Unveil Review of Research in Education (2013)

In April, the American Educational Research Association (AERA) released the 2013 volume of *Review of Research in Education* (RRE), co-edited by UC Davis School of Education professors **Christian Faltis** and **Jamal Abedi**. The volume, "Extraordinary Pedagogies for Working Within School Settings Serving Nondominant Students," includes ten informative chapters covering a broad array of sociocultural issues. Read the Review at <http://rre.sagepub.com>.

School of Education associate professor **Gloria Rodriguez** wrote a chapter "Power and Agency in Education: Exploring the Pedagogical Dimensions of Funds of Knowledge," which begins by acknowledging "the racial/ethnic, cultural, and socioeconomic differences that continue to exist between student populations and teachers in many educational settings. [These] produce an imperative to create teaching-and-learning environments that are characterized by mutual understanding among students and educators."



Gloria Rodriguez

Adaptive Expertise: Studying STEM Learning in an Out-of-School Program

Everyone agrees that schools need to do a much better job of preparing students for learning and work in science, technology, engineering and mathematics (STEM) disciplines. Unfortunately, discussions of STEM learning are too often driven by scores on large-scale standardized tests, argues **Lee Martin**, assistant professor in the School of Education.

Martin, who studies people's efforts to enhance their own learning environments, with a particular focus on mathematical thinking and learning, would rather the focus be on attributes that indicate an "ability to learn and innovate in novel contexts," or adaptive expertise.

"We need to provide youth with STEM education that goes beyond the acquisition of knowledge and skills," said Martin. "It must also build confidence, perseverance, curiosity, and the ability to plan and adapt in complex projects. These are attributes essential in STEM, but also in art, design and other occupations, as well as in everyday life."

With a small grant from the Spencer Foundation for his project "Adaptive Expertise in 'Do-It-Yourself' Engineering Design Projects," Martin is studying the development of



adaptive expertise in an out-of-school engineering and design club in which 12-18 year-olds work with adult mentors to complete projects of their own choosing. Past projects range from an animated cardboard diorama to a ride-on flight stimulator.

According to Martin, the program under study has a number of characteristics that research has shown can foster the development of adaptive expertise, including "the ability to develop knowledge in response to problems; frequent opportunities for sharing, reflection and critique; and an emphasis on experimentation and conceptual understanding."

Martin aims to understand when and how youth respond or adapt over time to impasses that arise during their projects as well as how youth talk about themselves as participants in STEM thinking, learning, and doing. He also hopes to create and define new measures for adaptive expertise, particularly in informal learning environments.

"Ultimately, my study will document how adaptive expertise develops, provide concrete hypotheses about how it can be fostered, and document how youth become connected to a community of STEM learners," said Martin.

School Welcomes New Assistant Dean to Leadership Team

The UC Davis School of Education is pleased to welcome **Damian Chapman** as its new Assistant Dean for finance, administration and strategy development. Before coming to the School, Chapman served in the UC Davis Office of Administration and in Administrative Resource Management for over 10 years. He brings a deep knowledge of university processes and solid working relationships across the campus. In addition, he has had a leadership role for the campus in planning a variety of initiatives to enhance efficiencies, assess capital investments, develop external partnerships, manage a shared service center, and collaborate with academic units and the central administration on a variety of projects.

"Damian's skills, commitment to our mission, and his energy will serve the School of Education well in the months and years to come," said Dean Harold Levine.



Damian Chapman

Research Newsletter Focuses on Research Offered at Annual Meeting

The UC Davis School of Education's April *Research* newsletter features our faculty and student research on writing instruction, a nonformal education program in Bangladesh, the use of social media to engage youth during critical educational transitions, and the importance of communicating clearly with Latino parents to ensure their students go to college. To download a print version of the April 2012 edition, visit <http://education.ucdavis.edu/publication/school-education-research-news-brief-april-2013>.



Research Presented at the Annual Meeting of the American Educational Research Association (AERA)

The UC Davis School of Education had 26 faculty and professional researchers, as well as 31 students and recent alumni participate in this year's Annual Meeting of the American Educational Research Association (AERA), the most prestigious gathering of education researchers in the country. Here, we feature some of the highlights. Read bios, a schedule of presentations and more at <http://education.ucdavis.edu/publication/school-education-research-news-brief-april-2013>.



Angela Booker

Angela Booker, assistant professor: "Digital Media for Social Change: Helping Youth Stay Engaged in School." In her study, Booker explored how students used digital media during a summer program intended to help students move into middle school and high school, particularly vulnerable transitions for students who may be struggling academically and socially in school. She argues the key is finding ways to forge meaningful relationships between and among students and adults in and out of school.

Lee Martin, assistant professor, and **Tobin White**, associate professor: "Integrating Mobile and Mathematical Practices Across Contexts." Most educators recognize the ubiquity of mobile devices in the lives of their students and too often see them only as competition to learning in the classroom. Two researchers at the School of Education are exploring another possibility: that mobile devices have the potential to bridge formal and informal learning, particularly in mathematics, and can be leveraged to increase student engagement in learning math.

Kevin Gee, assistant professor: "Improving Educational Attainment for Marginalized Children in Rural Bangladesh via Nonformal Education." School is a fact of life for virtually every child in America, but in the world's poorest countries, school is not a given. For instance, nearly two million children in Bangladesh lack access to a formal classroom, so the government relies on international development organizations and corporate partners to provide nonformal education to their most marginalized citizens. But does this approach work? Gee presented his findings from the first large-scale evaluation of one such program in Bangladesh to find out.

See Student News and Notes, p. 57, for more on student research presentations at AERA.

Translating Research for School Administrators

This academic year, several UC Davis School of Education faculty have written articles for *Leadership*, a magazine published by the Association of California School Administrators. Two of the articles summarized here covered the need to fairly assess English learners and the ways schools can integrate students' use of digital media to learn STEM (science, technology, engineering and math).

"Faculty in the School of Education at UC Davis are committed to conducting research that has a real impact on practice," said Dean Harold Levine. "In writing these articles specifically for administrators, we hope to present our work in a way that is relevant to the people responsible for making and applying policy on the ground." Access *Leadership* online at <http://www.acsa.org>.

A Look at the Impact of New Assessments on English Learners

Professor **Jamal Abedi** and Dean **Harold Levine** penned "Fairness in Assessment of English Learners" for the January/February 2013 issue of *Leadership*. In it, they discuss major changes and restructuring of the K-12 assessment and accountability system that are expected as the nation transitions to a new generation of assessment systems based on the Common Core State Standards. These assessments are

expected to be fully operational by 2014-15. Levine and Abedi, an internationally recognized expert on assessment for English learners and students with disabilities, outline the challenges that states and districts face in assuring assessments of English learners are "fair and valid."

"The new systems require responses that reflect higher levels of language proficiency from all students," the article reads. For English learners, who already struggle with assessments that are overly complex linguistically, the challenge is to create new, more challenging assessments that reduce unnecessary complexity and cultural biases, the authors explain.

Integrating Digital and STEM Practices

Professors **Tobin White** and **Lee Martin** wrote an article on how schools can leverage the ways students are already using mobile digital devices to organize and support learning activities in STEM content areas in the November/December 2012 issue of *Leadership*. Their article "calls attention to opportunities, often missed, to capitalize on emerging media for innovative and even transformative educational use."



Tobin White

First Class Set to Graduate from West Sacramento Early College Prep

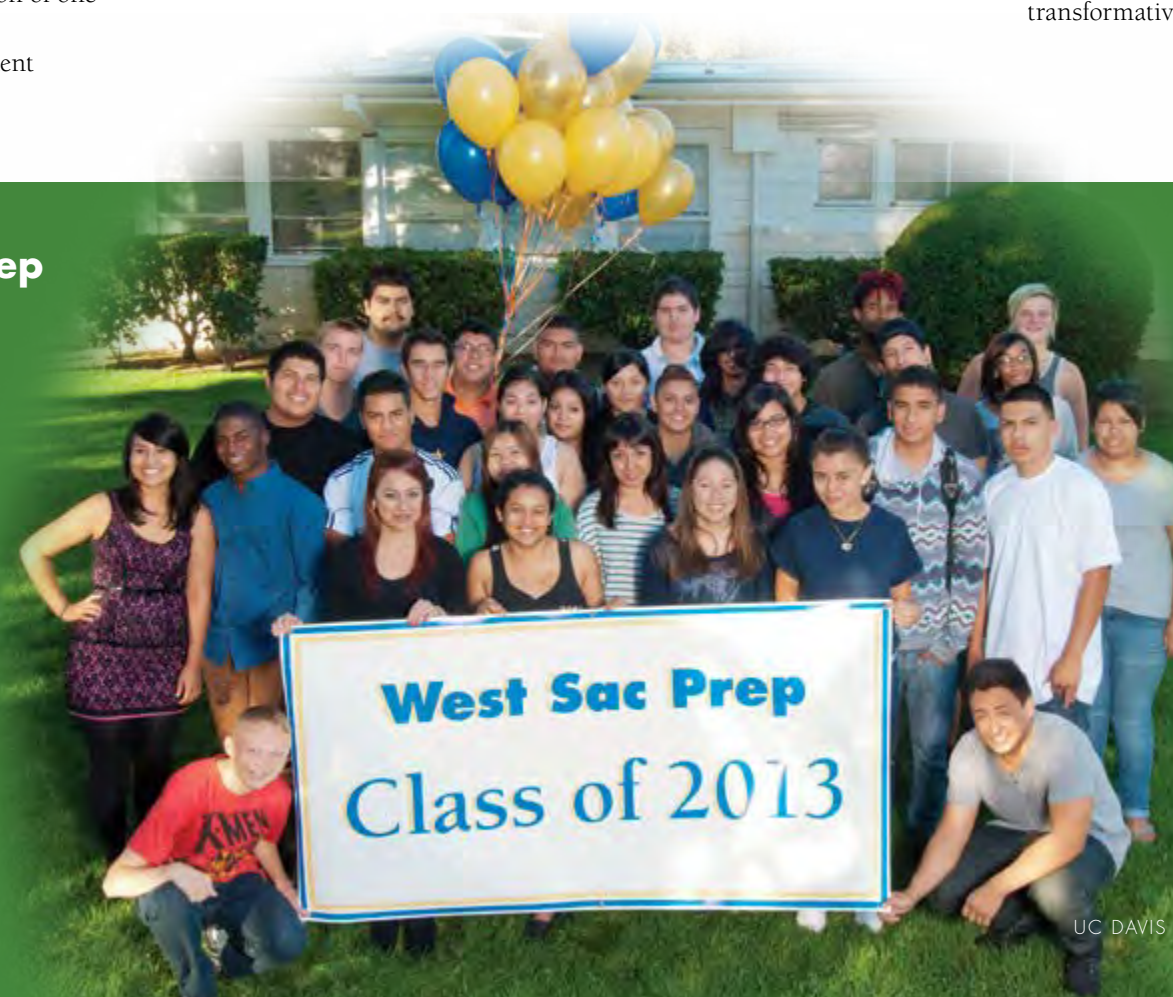
When the UC Davis School of Education and its partners, Sacramento City College and Washington Unified School District, decided to found a charter school in West Sacramento in 2007, getting underserved students a shot at college was on the top of the list of priorities.

The path to college was built in: every student at West Sacramento Early College Prep has the opportunity to graduate with both a high school diploma and as many as 30 college credits, or the equivalent of two years of college. And many of the students have taken advantage, completing courses in chemistry, history, art and Spanish, among others, at Sacramento City College.

Now the first graduating class is looking forward to a graduation ceremony at UC Davis's Freeborn Hall on June 9, and have weighed offers from colleges. In all, 32 students are graduating in this first small class, with nearly half admitted to

four-year colleges, including several UCs. Three will attend UC Davis, and 17 students plan to attend community college and transfer to a four-year college later.

"This is a phenomenal success story," said Dean Harold Levine, an architect of the early-college school. "Most of these students will be the first in their families to attend college, having really little or no experience with higher education. These are precisely the kinds of kids who too often get left behind by the system, and I believe that West Sac Prep's unique approach to experiential learning, personal attention, and focus on real scholarship has made all the difference."



KEEP UP ON THE LATEST RESEARCH at the UC Davis School of Education by visiting our website at <http://education.ucdavis.edu/research-news>.

West Sacramento Early College Prep's first graduating class.

Charlotte Kimball

Charlotte Kimball (BS '67, Credential '68, MEd '69) has never been afraid to go where other women dared not go. A true pioneer, Kimball was the first woman in California to receive a teaching credential in agricultural education. In a field arguably dominated by women now, Kimball had to battle low expectations, gender bias, and an old-boys club that was not always welcoming.

"I can't prove it, but I believe Charlotte was the first woman ag teacher in the country. We couldn't have picked a better person to break new ground," said Sandy Beck, who mentored and supervised Kimball's student teaching at Yuba City High School in the late 1960s. "This was a really big deal. Teaching ag was a 'man's job,' but she won us over in competency."

Kimball's journey at UC Davis began in biology, with a focus on botany and environmental sciences, another realm where she was often the lone woman. She credits the support of Professors Orville Thompson and Elwood Jorgenson for believing in her and providing her with the opportunity to pursue her interest in agricultural education.

It helped that Kimball was adept at forging her own path in a world dominated by men.

"I grew up before Title IX and because I was an active kid, I played softball on the boys' team and ran track, too," she said. "I think that experience may have prepped me to be able to deal with males and to expect to do what I wanted to do—that and having three rough and tumble brothers taught me how to deal with the other sex."

Her love of agriculture began early. Raised in the suburbs, Kimball and her brothers had their own garden and raised chickens. Her grandfather was a food product developer and shared his knowledge of fruits and vegetables with her.

Fast forward to UC Davis in 1964 when the campus had about 3,000 students. "I felt so welcome on the Davis campus," Kimball said. "When it came to deciding on a career, I found the Education Department to be so helpful, supportive and creative. Today's School of Education is much the same, although more diverse."

Agricultural education was a natural fit for Kimball, whose approach to learning has always been hands-on. "My family always built and fixed things," she said. "Ag education is about learning by doing, entrepreneurship, and leadership."

After earning her credential, Kimball first taught in Modoc County's Surprise Valley as a temporary replacement for the agriculture teacher who was ill. She next taught in Vacaville and Dixon.

In 1983, she started a seed business with her teaching colleague Georgeanne Brennan, and eventually worked for PG&E collecting seeds and walking the pipeline from Modoc to Fresno to ensure vegetation returned where pipe was laid.

Today, Kimball teaches horticulture at Wolfskill High School in Winters, Calif. "I started doing it in 2009 and it was so much fun that I now teach two days a week. I don't sit still long. I have a lot of things to do," she said.



Amanda Larson



Kayla Roberts



Kayla Roberts

Two **WOMEN AG ED** Students Reflect on Their Path to Teaching

Though Charlotte Kimball remembers a time when women were the minority among the teaching ranks of agricultural educators, Amanda Larson and Kayla Roberts are among the majority, with women dominating the field:

Amanda Larson (Credential '13), student teaching at Dixon High School in Dixon, Calif.

I was in both 4-H and FFA (Future Farmers of America) growing up. I always wanted to be a teacher, and from the moment I took my first Ag class at Monache High School, I knew that being an Ag teacher was the right career for me. Student teaching at Dixon High School has been such a wonderful experience for me. My master teacher has been such an inspiration and a wonderful guiding force for me, allowing me to try new things and always there to talk through lessons or issues. Although my master teacher is beyond exceptional, the students are by far the best part of teaching. I have become so close to all of my students, and I hope that they have enjoyed this past year as much as I have. It's really great being able to share with them my experiences in FFA and showing animals. Being at Dixon has been a phenomenal experience, and I am going to miss being there very much.

Kayla Roberts (Credential '13), student teaching at East Nicolaus High School in Nicolaus, Calif.

I chose to teach Ag because of the hands-on experience it offers to students and for the leadership component the FFA brings to agriculture education. The relationships that Ag teachers form with their students allow them to have a greater impact on students. I had such an incredible high school experience due to my involvement in student leadership, and I decided to teach high school to hopefully help other students have a joyous

and memorable experience like I did. I get to teach in a nontraditional setting that allows students to use their hands to help them learn, while having fun. Students get the opportunity to implement what they learn in class, out in the garden or in the barn. It is amazing how much more students retain, when they get to actually practice what they are learning. As an educator it is my goal that I help these students become productive citizens.

Agricultural Education Still Going Strong and Vital for the Future

The longest-running credential program on the UC Davis campus holds a venerable place in history and a valuable place in the future.

The UC Davis School of Education's agricultural education program provides aspiring teachers with an integral blend of theory and practice. Our history in agriculture adds to the richness and diversity of our credential program, including a strong partnership with the UC Davis College of Agriculture and Environmental Sciences.

According to **Lynn Martindale**, lecturer/supervisor in the School's agricultural education program, "Ag Ed is the only holistic discipline, the last-standing career technical education program, that the state funds since high stakes testing became the norm."

Agricultural education, a systematic program of instruction in science, business, plant and animal production, and natural resources systems, first became a part of the public education system in 1917 when the U.S. Congress passed the Smith-Hughes Act. Today, over 800,000 students participate in formal agricultural education programs offered in middle and high school throughout the United States and three U.S. territories. In California, there are

continued on page 60



BIG
ISSUES

BIG
IDEAS



LEADING EXCELLENCE IN EDUCATION: Putting Our Expertise to Work to Meet the Challenges of Today and Tomorrow

Faculty at the UC Davis School of Education are focused on some of the greatest challenges facing public education—from helping to shape and implement revolutionary new standards for teaching math, science, and English language arts to finding ways to engage students in learning to fairly and equitably teach and assess the ever-growing population of diverse learners.

As we look forward to our next ten years, some of our faculty reflect here on the big issues they are taking on and how well they think the School of Education is positioned to provide the bold and innovative solutions needed to drive excellence in public education.

Preparing the NEXT GENERATION of Teachers

Christian Faltis, professor and director of teacher education

Christian Faltis is the Dolly and David Fiddymont Chair in Teacher Education and director of Teacher Education in the UC Davis School of Education. He has a range of expertise in teacher education, particularly in preparing teachers to work in classrooms and schools where immigrant children and adolescents are becoming bilingual, adding English to their language and learning experiences. He has written numerous books and articles focusing on how novice teachers can improve their teaching by learning about language practices and becoming advocates for bilingual students and their families. Faltis was the first educator to write a practitioner-oriented book for secondary teachers of English learners.

Teacher education is going through a number of important shifts. The new Common Core State Standards and the Next Generation Science Standards will have a huge impact on what teachers are prepared to know and enact, how they develop their practice in the field, and ultimately how their teaching practices are assessed. Perhaps the greatest challenge new teachers face will be the intense language demands permeating the new era standards, which move away from a focus exclusively on content knowledge and toward a display of knowing and doing enacted through oral and written language. This is true for math and science as well.

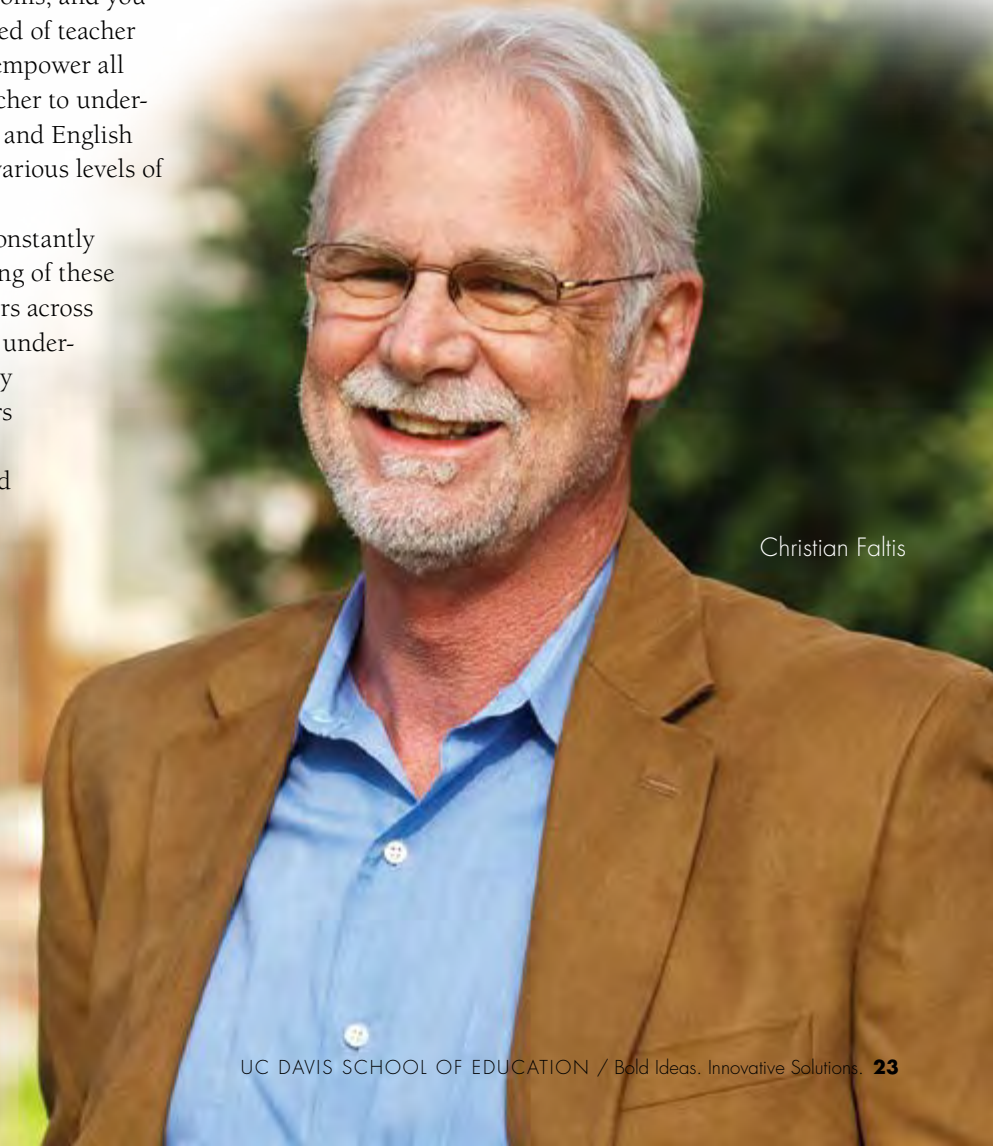
Add to this the demographic shifts in student populations, with increasing numbers of bilingual students, and a push to integrate English learners into mainstream classrooms, and you start to understand the monumental efforts required of teacher educators to prepare teachers who can reach and empower all students. The burden is now on the classroom teacher to understand language demands of the new era standards and English learners' abilities to engage with the standards at various levels of language development.

At the UC Davis School of Education, we are constantly looking for ways to improve teachers' understanding of these issues. And we have a real focus on English learners across courses and field experiences in our program. We understand this well. In our research discussions, faculty are re-envisioning ways to prepare student teachers to work with the new standards as these apply to English learners in both their methods courses and in their field supervision.

We also apply our faculty expertise in formative assessment for helping teachers to pay attention to what students are able to do in the process of learning rather than focusing exclusively on the product. Our efforts to engage teachers in inquiry prepares them to pose questions about teaching and learning and to understand how children and youth make sense of concepts through language. Our approach is highly practice-

oriented in school classroom settings and informed by an inquiry stance.

Basically, we prepare teachers to make choices based on what they understand about student learning. It is disheartening to see a good teacher strapped by scripted and fragmented curricula. We want our teachers to know how to engage all of their students and to put on a new set of glasses while learning their craft. We believe that practice-based teacher education is the best way to really prepare our students for the complexities of schools, classrooms, and the language demands in the new standards era.



Christian Faltis

BIG IDEAS

Shaping the Future of K-12 ASSESSMENTS

Jamal Abedi, professor of education

Jamal Abedi is an international expert in the “how-to” of K-12 educational testing. Among the leading scholars in his field, Abedi specializes in testing for English learners and students with disabilities. The professor is the author of many publications in the assessment of and accommodations for English learners and is on the advisory committees for several major test-publishing companies. He serves on the technical advisory committee to the Smarter Balanced Assessment Consortium, one of two groups creating assessments for the new Common Core State Standards (CCSS).

Federal legislation such as No Child Left Behind demands school accountability by requiring all students to be tested in English language arts, mathematics and science using reliable and valid assessments sourced from the state’s content standards. In response to this legislative demand, states developed their own assessments for measuring students’ content knowledge in these areas. In 2010, federal funding legislation known as Race to the Top (RTT) provided support to two consortia of states (Partnership for Assessment of Readiness for College and Career [PARCC] and the Smarter Balanced Assessment Consortium [SBAC]) to create a common set of assessments that can be used across states based on the national college- and career-ready curriculum standards (Common Core State Standards [CCSS]) in English language arts and mathematics. California decided to join SBAC.

While adopting the CCSS standards is productive within the instruction and assessment of K-12 students, it may elicit challenges for non-native speakers of English. CCSS are more language demanding and require sophisticated and discipline-specific language practices. For example, language is not the



Jamal Abedi

focal construct within mathematics, but CCSS require all students to explain, describe, compare, contrast, argue from evidence, give definitions and recounts, summarize, paraphrase, pose and respond to questions that probe reasoning and evidence, and explain cause-and-effect on math problems. The high level of language demands in the new standards may have significant implications for English learners. This is of particular importance for California, which has the largest population of English learners in the nation—about a third of the United States’ English learner student population.

To deal with the issue of language demand in content areas such as mathematics, SBAC has incorporated methodology for linguistic accessibility into its test development process. Linguistic accessibility helps by reducing the level of unnecessary linguistic complexity of assessments. UC Davis faculty and researchers have been actively involved in the project by providing information and guidelines for making assessments more accessible for all students to SBAC’s Accessibility and Accommodation Advisory. They have also provided guidelines for selecting accommodations to improve accessibility of content-based assessments for English learners.

Leading Wholesale Changes in SCIENCE EDUCATION

Cindy Passmore, associate professor of science education

Cindy Passmore is an expert in K-12 science education, with a particular focus on designing learning environments that provide opportunities for students to engage in authentic scientific reasoning. Her research examines student learning in classrooms designed around data-rich investigations that allow students to develop, revise, or apply scientific models. Additionally, she researches the design and implementation of teacher professional development. Passmore was a high school science teacher for six years and is the principal investigator for Innovations in STEM Teaching, Achievement and Research (I-STAR), a collaborative effort among UC Davis faculty and researchers and K-12 science teachers to rethink science education.



Cindy Passmore

The release and implementation of the Next Generation Science Standards is the biggest, most important thing happening in the formal K-12 science education world right now. The new standards are rich in content and practice and are intended to provide all students an internationally benchmarked science education. Much like the new Common Core State Standards (CCSS) in English language arts and math, these standards are designed to do a better job of preparing students for college and careers.

This is not a tweaking of how things are done now; this is a wholesale overhaul. Rather than teaching topics such as biology or chemistry in isolation as a set of facts and procedures for students to memorize, the new standards ask teachers to prepare students to understand the underlying principles and structures of science and to apply reasoning across all subjects and disciplines to solve problems.

I am optimistic about the national reform language around the standards because it reflects what we at the UC Davis School of Education already know about engaging students in science to learn science. But after working with teachers for more than 15 years, I also know that we have to be patient; there are no quick fixes or silver bullets. At the School, we are willing to undertake the difficult work to improve science teaching.

The School’s I-STAR project is one big way we are on the cutting edge of these reforms. I-STAR, funded for four years with a \$1.6 million grant from the S.D. Bechtel, Jr. Foundation, partners STEM education researchers with K-12 math and science teachers from two local school districts to form design teams. The team of more than 30 school district participants and UC Davis faculty are designing learning environments that focus on reasoning as the path to mastery of STEM content.

Too often, education researchers never really work with real teachers in classrooms. This is a big mistake. At the School, our research is not only based on our work with teachers, but also it keeps in mind that it should be of use to teachers. No teacher is going to slog through a dry academic research article. They want to know “what is the punch line, what can I do with this information?” More importantly, because too many researchers are unaware of how a real classroom works, they have no idea what a radical shift the introduction of the Next Gen standards really is. But at the School, we know that if you work side by side with teachers on reform, the end result is a product that is tested and usable.

Rick Pomeroy, Arthur Beauchamp, and I served on the state committee that worked through each draft release of the Next Generation Science Standards. Through the I-STAR project, Rick’s role as president of the California Science Teachers Association, and Arthur’s role as the director of the Sacramento Area Science Project, we are in a position to work closely with our colleagues and the many talented and forward-thinking teachers out there to develop a rich understanding of the coming changes in K-12 science education. We have been on the cutting edge of this work for a long time, so we are poised to continue our work with teachers throughout the region to ensure that they have the tools and know-how to put the standards in place.

BIG IDEAS

Diverse Pathways TO LEARNING

Lee Martin, assistant professor of mathematics education

Lee Martin studies people's efforts to enhance their own learning environments, with a particular focus on mathematical thinking and learning. In everyday settings, he looks at the varied ways in which people assemble social, material, and intellectual resources for problem solving and learning. In school settings, he looks to find ways in which schools might better prepare students to be more resourceful and flexible in fostering their own learning.

One really pervasive and important issue is how do we design learning environments to support diverse groups of learners? In a traditional instructional paradigm, where information is delivered in a uniform fashion to all students, diversity is a threat to the success and efficiency of teaching and learning. One response (traditional, institutional) is to try to manage and minimize diversity, perhaps by age-segregation (grade levels), tracking by ability, or other means.

This is done in contrast to what we see in some other settings, including some workplace settings, where diversity is genuinely seen as a strength. Interdisciplinary teams, for example, are believed to be well suited to creative thinking and design. Community groups cannot function effectively without diverse representation from a variety of stakeholders.

I don't mean to suggest that teachers or educators do not value diversity, but rather that the structures of traditional schooling often turn diversity into a problem that is difficult deal with.

I think we are well poised to address this question at the UC Davis School of Education, through a variety of means. One way to create effective learning environments for diverse learners is to individualize instruction in some way, so as to build from students' strengths and address their needs. Many of our faculty work in this vein, including Jamal Abedi and Paul Heckman's work on formative assessment, Peter Mundy and Emily Solari's work on diagnostic assessments and targeted interventions, and Rebecca Ambrose's work on cognitively guided instruction.

Technology holds particular promise here. The work Tobin White and I do using mobile devices to help build bridges



Lee Martin

between students' out-of-school competencies and in-school practices is one model. Angela Booker and Cynthia Carter Ching's work with technologies for learning provide other models. Steve Athanases is working on helping teachers develop "data literacy" to understand their students and tailor instruction accordingly. I look forward to collaborating with him on this.

Another approach is to adjust definitions of success in the classroom. If outcomes are defined and assessed narrowly, there is less room for student individuality and agency in defining their own learning path. When everyone needs to do things in the same way, diversity

is a problem. Adjusting standards does not imply lowering of standards. Rather it suggests environments that allow for a variety of types of successful learning and participation to "count." Those of us who do research in informal learning environments (myself, Angela Booker, and Heidi Ballard, in particular) are drawn to these settings in part because of the ways in which they create multiple pathways for success for diverse learners. I think we are working to envision ways in which schools could embrace such a multi-faceted view of success.

The notion of adjusting the definition of success does not always mean broadening, per se. For example, I think that Cindy Passmore's work on model-based reasoning shows that many people hold an outdated view of competency in science (one built on mastery of facts and procedures). A model-based reasoning perspective, while quite specific in its definition, can support certain forms of diversity in engagement with science (e.g., a wider variety of topics and modes of inquiry), which is a way to support a diversity of pathways to success.

And, of course, a number of our faculty are working in quite explicit ways to support linguistically diverse student populations.

California Institute for School Improvement Extends Reach of School's Policy Expertise

When the **California Institute for School Improvement (CISI)** became a part of the UC Davis School of Education's Center for Applied Policy in Education (CAP-Ed) last July, it provided the School with a concrete way to reach a group of education professionals it was not already serving. In turn, CISI aims to expand its services to include the School's research expertise.

CISI provides school district leaders and principals with unbiased, accurate, up-to-date, and useful information on education policy that is presented in a thoughtful and accessible way. The organization is 30 years old, previously run as a nonprofit. Its first executive director was School of Education Advisory Board member Davis Campbell.

CISI is organized around the belief that curriculum and instruction matters—it is the central business of schools. Designed to support district and county instructional leaders, CISI serves over 140 member school districts and county offices of education.

"Our approach is practical," said Peter Birdsall, who writes a bi-monthly education policy update for CISI members and leads biannual workshops on education policy issues of importance to district leaders. Birdsall, an expert in education policy, finance, and curriculum and instruction, is executive director of the California County Superintendents Educational Services Association.

In a recent presentation, Birdsall explained that CISI's approach is to provide "clarity on what districts must do, what their options are, what they cannot do, and timelines" in response to state and federal education policies. "It is about usefulness to our members, not just about what current policies are in place," he said.

The agenda for workshops CISI will offer this fall include Birdsall's "top ten issues":

1. State budget
2. School finance
3. Categoryals (special areas of educational funding)
4. Instructional materials
5. State assessments
6. School accountability
7. Federal budget and legislation
8. Charter schools
9. Teacher evaluation
10. Civil rights and equity

"These topics are interrelated, but not a lot of organizations are tying them together," said Birdsall. "We do."

To learn more about CISI, find out about upcoming workshops, and become a member, visit <http://cisi.ucdavis.edu>.



In January, the U.S.-China Exchange Council organized a visit to the UC Davis School of Education for a group of headmasters from Beijing, China. They were interested in learning more about the K-12 education system in America. Professor Thomas Timar, executive director of the School's Center for Applied Policy in Education, gave the group an overview of how K-12 education is organized and governed. He took questions, translated into English by an interpreter, about how teachers are prepared and classrooms organized.

Support for Systems Transformation: Three-Year Project to Promote Systemwide Change for Improved Teaching *and* Learning

Armed with a grant from the Stuart Foundation, the UC Davis School of Education's Center for Applied Policy in Education (CAP-Ed) is partnering with Dr. Michael Fullan, professor emeritus at the Ontario Institute for Studies in Education at the University of Toronto, to implement his Whole System Change program in four Northern California school districts. The aim is nothing short of revolutionary.

Fullan, an international expert on leadership and change in education systems, has developed and implemented a program throughout Ontario that tackles one of the greatest challenges facing district and school leaders: how to change the central focus away from the technical and managerial concerns that too often take up much of districts' organizational energy and resources to the core mission of teaching and learning.

Stagnant and declining student achievement requires everyone in a system, from the district superintendent to the classroom teacher, to be committed to change, according to the whole systems approach. Everyone must agree on a guiding focus (e.g., increasing literacy) and then work in concert to design, implement, and sustain the change they seek.

Implementing the program in four districts and 75 schools, Fullan and his team of researchers are working with district and school leadership and teachers over a three-year period to facilitate design of a strategy for improvement and assessment of student outcomes. Superintendents and senior leaders also gather annually for four one-day institutes to focus on the role of senior leaders in designing and supporting change across their districts. School leadership teams (a principal and three to five teachers) are meeting four times a year to provide ongoing professional development and sharing of ideas and results from each site. During the year, on-site "capacity teams" trained to coach and promote sustainable change over time will facilitate work at each site. CAP-Ed will study the process and what was learned in order to inform other educators seeking a way to transform their systems.

"This is a huge experiment in California, creating an alternative model for how schools can sustainably keep a central aim on supporting high quality instruction for every student while maintaining well-managed organizations," said **Thomas Timar**, CAP-Ed's executive director and principal investigator for the project. "Ultimately, we are proposing a new model of

school improvement based on district-level collaboration and networks, rather than on top-down mandates."

According to Timar, CAP-Ed's analysis and dissemination of examples of positive change from the project has the potential to influence statewide policymakers in their thinking about how professional collaboration at the district level can contribute to high quality instruction.



Thomas Timar

Anthony Bryk Gives Talk on Organizing Schools for Improvement

"Aspirations for our educational systems are growing at an astronomical rate—much greater than schools' ability to meet them—while also asking the systems to be more efficient."

— Anthony Bryk

improvement science (from the health care field) and the power of networks to increase the system's ability to improve. He laid out six principles for progress:

1. **Disciplined inquiry:** The aim is to make systemic improvements in practice.
2. **Problem and user-centered:** "There are a plethora of solutions" to what ails education, according to Bryk, but "we never step back and ask what is the specific problem we are trying to solve. Variation in performance is the problem to solve. We have to ask, 'how do we advance effectiveness among diverse teachers engaging varied populations of students working in different organizations?'"
3. **Shared frameworks:** People need to work together to build solutions.
4. **You can't improve at scale what you can't measure:** "In the academic world, we get credit for differentiating ourselves from others, so our incentive is to parse," said Bryk. "But we need to reduce down to the things we can work on and measure."
5. **Embrace disciplined inquiry:** "The new improvement mantra is learn fast, fail fast, improve fast."
6. **Tap the power of networks:** "Networks are an accelerant, a source of innovation," said Bryk.

To learn more about Bryk's work, visit <http://www.carnegiefoundation.org>.

In December 2012, **Anthony Bryk**, president of the Carnegie Foundation for the Advancement of Teaching, spoke to students, faculty, and regional education leaders at UC Davis. His talk titled "Accelerating Capacity to Learn in and Through Practice to Improve: Networked Communities Engaged in Improvement Research," laid out six principals educators and researchers must apply to meet the increasing demands for quality instruction and better learning outcomes in schools.

Bryk is one of America's most noted educational researchers. His 1993 book, *Catholic Schools and the Common Good*, is a classic in the sociology of education. His deep interest in bringing scholarship to bear on improving schooling is reflected in his later volume, *Trust in Schools* and his most recent book, *Organizing Schools for Improvement: Lessons from Chicago*. He is the ninth president of the Carnegie Foundation for the Advancement of Teaching, where he is leading work on transforming educational research and development, more closely joining researchers and practitioners to improve teaching and learning.

"Aspirations for our educational systems are growing at an astronomical rate—much greater than schools' ability to meet them—while also asking the systems to be more efficient," Bryk began. Bryk's approach is to tap into the natural ability of educators to network. "Education is the quintessential network, if we can just increase our capacity to work together."

Ultimately, he said that education needs a more rigorous research and development system that applies principles of



Anthony Bryk

Almost Everything Changes: Michael Kirst Talks about Local Challenges to Implementing Common Core State Standards

"Students have to take knowledge that they learned in one place and apply it elsewhere. This is quite revolutionary, calling for an overhaul of the entire system."

— Michael Kirst

In March, **Michael Kirst**, president of California's State Board of Education, gave a talk on the status of Common Core State Standards (CCSS) implementation in the state and the challenges state policymakers and local leaders face in implementing them.

Since 2010, the District of Columbia and 45 states, including California, have adopted the same CCSS for English and math. The State Board of Education approved the new standards implementation plan in March 2012. "These standards really came from the bottom up, and California is heavily united behind them," said Kirst.

The new standards, as Kirst said, change everything. Rather than asking students to master specific facts or formulas, the new standards seek to prepare students with the skills to apply knowledge through high-order skills, with a heavier emphasis on the application of reasoning, language, and communication skills across disciplines. As such, whether the subject is math, history or English, instruction relies heavily upon helping students use language and reasoning in ways that are fundamentally different from what is expected in the previous standards.

"Students have to take knowledge that they learned in one place and apply it elsewhere. This is quite revolutionary, calling for an overhaul of the entire system," said Kirst.

At the state level, Kirst explained that policies guiding everything from textbooks to tests must be reconfigured and aligned to the CCSS. "It's a lot to do in a very fiscally restrained period," he said.

Local implementation may be even more challenging. Preparing teachers for a major shift in expectations for student learning and instruction, providing curriculum aligned to the standards, and transitioning to an entirely new assessment



Michael Kirst

system (not expected to be released until the 2014-15 academic year) are just a few of the tasks facing school administrators. Multiple choice testing will no longer be the norm, according to Kirst.

While teachers are now expected to teach to the CCSS standards, few curriculum materials are available and demand for professional development is outstripping local districts' ability to meet it. "It seems we may be able to do some professional development for teachers online in English language arts and math, but we will need more money to do it."

Most vexing may be the lag between implementation of the standards and available assessments. "The Smarter Balanced Assessment is likely to be available in 2015, but it is unclear when accountability would phase in (i.e., when testing would count as a measure of a school population's academic performance)," said Kirst. "Even so, there will be lots of holes."

Other questions Kirst said have not been answered include how career technical education standards align with CCSS and what, if any, changes will the state colleges and universities make to their high school course requirements (commonly referred to as A-G).

To learn more about CCSS in California, visit the Common Core State Standards Initiative at <http://www.corestandards.org>.

Getting Clinical: Applying Instructional Rounds to School Change Strategies

Richard Elmore



When novice doctors want to understand patients' conditions, they engage in medical rounds, a process through which they make objective observations based on facts. This clinical process is grounded in data that doctors can then use to arrive at an agreed-upon theory of action. For instance, they may determine that their patient mortality rate is too high, so they decide upon an intervention based on their observations. If the intervention does not improve mortality rates, they adjust their practice.

In trying to help educators address systemic challenges to high quality teaching and learning, Richard Elmore, the Gregory R. Anrig Professor of Educational Leadership at the Harvard University Graduate School of Education, asked a novel question: Could this tried and true approach to preparing medical doctors be applied to the education system? The result is the groundbreaking method called Instructional Rounds that he developed with colleagues at Harvard.

Rather than adopting the latest one-size-fits-all "reform measure," school and district administrators and their staffs can apply the principles of Instructional Rounds to first observe and analyze classroom interactions, then agree upon a practice they believe might solve the problem, and finally objectively assess whether the intervention worked. This requires an ongoing group effort and commitment to developing a common language, shared professional culture, and practices intended to improve teaching and learning at a particular site.

The UC Davis School of Education's **Center for Applied Policy in Education (CAP-Ed)** thought Elmore's ideas were worth introducing to superintendents who participate in the Center's Superintendents Executive Leadership Forum, or SELF. Elmore has spent at least a day or two describing the method to each cohort of SELF since its inception six years ago. As a result, many superintendents throughout Northern California have applied the method in their districts. Some of the superintendents have received training in Instructional Rounds at Harvard University and have trained others in their region on how to apply it.

CAP-Ed has expanded its investment in this methodology by offering an initial training session led by Elmore to educators throughout the region and by hosting several two-day intensive site visits at local schools to train others on how to apply the methodology. More than 200 people attended the initial training session in January and many participated in the two-day site visit trainings this spring.

"We want educators to understand that this is an ongoing process of investigation and articulation of goals within a school," said Tina Murdoch, CAP-Ed programs manager. "Ultimately, this can be a significant component of cultural change within a school, effectively touching everything from professional development, curriculum development and instructional practice to community building."

One of the most potentially intimidating aspects of the process for teachers is letting small groups of people (perhaps their principal, fellow teachers, or even strangers) into their classrooms. But Murdoch is quick to point out that school sites understand up front that the process is not about judging teachers, but rather about assessing learning outcomes. For the process to work, teachers must be co-equal participants as they work together to develop targeted approaches defined in their theory of action.

"CAP-Ed's emphasis is on local leadership and that includes teachers. Teachers need to be drivers of what happens in classrooms," said Thomas Timar, education professor and executive director of CAP-Ed.

For example, at one of the on-site trainings, small teams of district-level and school-level educators worked together at an elementary school where the "problem of practice" was defined as "engaging students in independent work for 80 percent of the time during language arts and ensuring their work is rigorous, connected and aligned to promote high levels of literacy." The teams then entered three different classrooms of varying grade levels, made observations about what students were doing, and then shared those observations with the group. This led to a whole-group discussion to determine the most common observations, develop predictions of learning outcomes (students' abilities developed over time), and brainstorm alternatives for instructional focus and student learning based on the data collected. The site could then take that information to come up with an agreed-upon theory of action for reaching its goals.

"Ultimately, the goal is to deeply impact instructional practice," said Tony Roehrick, who led one of the site visits in Sacramento. Roehrick is superintendent of Cabrillo Unified School District and a SELF alumnus.

For more information on Instructional Rounds trainings, contact the CAP-Ed office at caped@ucdavis.edu.



CONNECT. CONVENE. INSPIRE.

California Afterschool Network: A Powerhouse in National Efforts to Provide Expanded Learning Programs

The UC Davis School of Education launched the California Afterschool Network in 2006 with initial funding from the Charles Stewart Mott Foundation, the Evelyn and Walter Haas, Jr. Fund, and the Foundation Consortium for California's Children & Youth. The network, located in the School's Center for Community School Partnerships (CCSP), is a broad coalition of stakeholders helping to chart the course for California's afterschool programs.

The Network's charge is to serve as a catalyst for high quality expanded learning programs (for example, afterschool and summer learning programs) to provide out-of-school time (OST) practitioners, advocates, and community members with the resources and tools for their programs, and to convene afterschool stakeholders to build knowledge, skills, and leadership on issues affecting the out-of-school time field.

In its first seven years, the Network has proven to be a resource not only to California's afterschool providers and state education leaders, but also to the national network of afterschool professionals, foundations, and policymakers engaged in providing high quality programs to the tens of thousands of students who benefit from them. The Network's expertise in STEM (science, technology, engineering and math) education programming is particularly notable.

For example, the Network is a partner with the California STEM Learning Network in the Power of Discovery: STEM², an effort to mobilize a broad coalition of stakeholders who are working together to create and implement a robust, statewide system of regional and virtual innovation support providers. They will work together to implement a comprehensive multi-year strategic plan to facilitate cross-sector partnerships and increase the professional capacity of OST programs to offer high quality STEM learning opportunities.

"Our goal at the launch of the Network was to build a broad and diverse network by including policymakers, educators, child care providers, youth development workers, advocates, parents, state agencies, philanthropy, afterschool programs, and other partners," said **Renee Newton**, CCSP director and the original director of the Network. "We have done this and so much more. I couldn't have imagined the sheer scope and influence this



Frank Pisi

work would have on the field of afterschool programming."

Last winter, a long-time educator and professional in the field of afterschool programming joined the School of Education as director of the Network. **Frank Pisi** has been on the Network's leadership team from the beginning in his role as an education programs consultant at the California Department of Education and afterschool regional lead at the Sacramento County Office of Education. Pisi also brings to the Network a classroom teacher's understanding of pedagogy, a passion for pushing the field toward a deeper commitment

to quality, and a broader understanding of the possibilities for afterschool programs to provide rich and relevant experiences for children of all ages.

"I know from my time teaching that good pedagogy is good practice and vice versa, regardless of the venue," said Pisi, who taught middle and high school social studies in Elk Grove and ran an afterschool program at his school before joining the Department of Education. By looking beyond the popular notions about afterschool programs as being places where kids just kill time between school and home, Pisi argues the Network can "help broaden the conversation about how we educate children. The potential we have to harness the voice of the field is amazing."

Because, as Pisi contends, the Network has "no vested interest besides promoting and advancing quality in the field," everyone involved in the Network—from practitioners to policymakers—have the ability to shape the definition of "high quality" in ways that ensure positive results for all learners. In fact, the Department of Education is supporting work that the Network is doing on quality expanded-learning. "The department looks at the Network as a resource because we are in a unique position to provide information to the field and provide feedback from the field to policymakers and administrators," said Pisi.

With funding from the Department of Education, the Network has formed a working group to research efforts on quality standards from around the country and to gather ideas from the field to recommend a set of indicators for high quality

BREAKING BREAD, TALKING SCIENCE

Second Year of "Dinner With A Scientist" Introduces Hundreds of 7th–12th Graders to Real-World Scientists

In November 2012 and May 2013, the Sacramento Area Science Project (SASP), in partnership with the Powerhouse Science Center in Sacramento, hosted dinner for more than 380 young people, teachers, and scientists. Building on the success of the first Dinner With A Scientist event, the organizers hope to inspire more young people to consider pursuing a career in STEM (science, technology, engineering and math).

The first three dinners have exceeded all expectations. "Our plan for the first Dinner With A Scientist event was to start small," said organizer Arthur Beauchamp, SASP director. "We were pleasantly amazed when the first event exceeded capacity and the two subsequent events have done so as well. The response has been tremendous. Students are eager to talk with scientists, and scientists and engineers are willing to convey their enthusiasm to students."

According to Beauchamp, the event, inspired by similar events hosted in Stockton over the last decade, strives to accomplish the following goals over time:



- Increase interest, enthusiasm, and persistence among students to study STEM subjects and learn more about STEM-related careers
- Improve and extend the network of scientists involved in K-12 STEM support and strengthen the interaction between scientists and K-12 educators
- Increase teachers' views of student capacity and increase students' views of their own capacity
- Strengthen SASP's connection to the Powerhouse Science Center and other scientists in the community

"Dinner With A Scientist is one of the ways UC Davis, Sacramento State, and local science, medical, and engineering industries can be of influence with young people," said Beauchamp. "It is another way for us to positively touch the future."

In all, nearly 300 middle and high school students from 50 area schools have attended one of the dinners with their teachers. Over 40 practicing scientists in various fields, including STEM-related industries in the region, have participated. To learn more about attending a future dinner or to provide support for more students to attend, contact Arthur Beauchamp at acbeauchamp@ucdavis.edu.

afterschool programs. The group offers their recommendations in June.

For many years, the Network has also organized several statewide conferences that were a significant draw for state and local agency leadership to discuss best practices in the field. In this past year, the strategy has been to host regional conferences that are more focused on the specific needs of particular communities. For instance, this year the Network partnered with local afterschool providers in Los Angeles, Fresno, and Alameda to host workshops focused on middle and high school programs. In all, more than 1,200 practitioners attended at the three venues.

"These are very practitioner focused," said Pisi. "We believe quality ultimately rests with the field, so our job is to bring them the resources they need to be successful." These regional

workshops were such a success that the Network has been asked to host six in the 2013-14 academic year.

Ultimately, Pisi says his goal is to "better utilize the research power of the School" to help shape the national discussion, especially in light of the focus on STEM education. "We have the opportunity to shape afterschool programs to be economic engines and to engage the business community and universities in creating tangible internships for students." According to Pisi, there are 1.4 STEM-related jobs for every job seeker. "There are not enough qualified workers. Afterschool programs have a real role in addressing the need," said Pisi.

For more information on the California Afterschool Network, visit <http://www.afterschoolnetwork.org>.

Note: The Network receives funding from the Noyce Foundation, S.D. Bechtel, Jr. Foundation, Samuelli Foundation, The Charles Stewart Mott Foundation, The David and Lucile Packard Foundation, and the California Department of Education.

"YOU GOT SOMETHING TO SAY?"

By Charisse Ceballos

HELPING YOUTH FIND THEIR VOICE AND TEACHERS TRANSFORM THEIR PRACTICE

Sacramento Charter High School's auditorium isn't as packed as it could be. But the student poets competing tonight seem not to care. Rodney Larae, the competition's MC, jumps on stage and cries, "You got something to say?" and the crowd yells back, "Say something!"

These student poets are competing with their original spoken word pieces for one of six spots on a team that goes to the international Brave New Voices Competition this summer.

February 27 marked the beginning of Sacramento Area Youth Speaks, or SAYS, 2013 Slam Season. Sacramento Charter High School had the honor of hosting the first of seven preliminary rounds, leading up to the finals on April 5 at The Guild Theater in Sacramento.

SAYS, a program within the UC Davis School of Education CRESS (Cooperative Research and Extension Services for Schools) Center, is focused on empowering students by encouraging expression through spoken word poetry. It is an innovative program focused on improving academic persistence and achievement at underperforming schools by developing student literacy and strengthening the connections between students and teachers in and out of the classroom.

Student-Centered Learning

SAYS works to facilitate a student-centered learning environment, guided by the theory that when students write about personal experiences, their academic writing improves.

Vajra Watson, director of research and policy for equity, launched SAYS in January 2009 with a small writing workshop where students were invited to express themselves and take on the conditions that have led to a dropout crisis in the Sacramento Region. This workshop would evolve into SAYS.

The first workshop brought in only five students. Watson urged these students to bring five of their friends to the next workshop, which they made good on. Twenty-five, then almost 100 showed up to the next few workshops.

SAYS is a "youth driven movement," said Watson. "SAYS truly belongs to them."

"The poet-mentors create a community that teachers are a part of. And together, they build a safe and nurturing environment."

— Vajra Watson

Poet Mentors Build Bridges between Students and Teachers

In just four years, SAYS has become a "catalyst for youth voice and expression, a tool for movement," said Patrice Hill, SAYS program coordinator and poet-mentor educator. In addition to working with youth directly, Hill, Watson, and 10 other poet-mentors are inside the classrooms of several different middle schools and high schools in the Sacramento Region every week working hand-in-hand with teachers and students to build a powerful literacy program embedded in the English language arts curriculum.

These poet-mentors are local adults, hip-hop heads, poets, and alternative teachers, who "look like [the students] and have been through it," said Hill.

Empowering Teachers

Teachers participating in the SAYS program are teaching at schools that are tucked away in the hard, underserved urban neighborhoods of Sacramento, where youth voices of color are often unheard and undervalued.

Vista Nueva Career and Technology High School in the Twin Rivers District is one of those schools. "It's a triage of education," said English teacher Erin Klentos, who sees a 200 percent student turnover rate in her classes in any given year.

SAYS has also been facilitating regional professional development workshops for teachers for three years, giving particular focus to the ways teachers reach and teach all students. Workshops have introduced teachers to concepts on "writing for justice," "raising voices silenced by history," and other topics addressed through the multicultural education movement.



Researchers and practitioners experienced in and concerned with social justice address these issues with teachers through a focus on curriculum, pedagogy, relationships, advocacy, and teacher expectations.

The issues and struggles that students write about in the SAYS classrooms and spit on stage can be taboo in some classrooms.

Sunshine Brown, a finalist of the SAYS slam competition who will represent Sacramento and the International Brave New Voices competition in Chicago this summer, is a student in Klentos's SAYS class. Brown, who is 18, said the best part about SAYS is "really expressing myself without getting in trouble," and, "seeing the reactions from the crowd."

SAYS lets the students know that "it's okay to tell their story," said Hill, and begin to understand the importance of education.

Brown admits that before SAYS, she "wasn't really into it." But after honing her spoken word skills, she is more serious about school, and is starting at American River College in the fall. She plans eventually to attend UCLA to earn her degree in Ethnomusicology.

Students aren't the only people changed by the SAYS experience. Local teachers who host poet-mentors in their classrooms are starting to approach their work differently.

"Teachers are changing their teaching style," said Hill. Teachers and students involved with SAYS often share different



ethnic and economic backgrounds. And as a result, there can be a disconnect between teachers and their students.

Hill said that the teachers are often amazed at how the poet-mentors are able to create relationships with their students and motivate them to write.

Since SAYS has entered the classrooms at Nueva Vista, Grant High School, and Sacramento High, among others, students and teachers have begun to form a different connection. Watson believes that poet-mentors are the glue between the teachers and their students.

"The poet-mentors create a community that teachers are a part of. They bring kids' lives into the classroom without judgment," said Watson. And together they build a safe and nurturing community.

SAYS participants become "authors of their own life and agents of change," said Watson. "We want our babies to know that SAYS is not an organization, but a family."

Outside of the classrooms and slams, SAYS holds annual summits at UC Davis. SAYS' fifth annual summit was held on May 3 at UC Davis's Freeborn Hall.

The summit attracted over 500 middle and high school students from Sacramento and surrounding areas. The all-day event gives these budding poets the opportunity to explore a Tier 1 research university campus, participate in writing and interactive workshops, and, of course, "spit" at an open mic session. Other events include a dance battle, graffiti competition, and an evening showcase of the best spoken word performers in the region.

This year's summit keynote speakers were Michael Tubbs, who at 22, is Stockton's youngest City Council member in history and one of the youngest elected officials in the nation, and Professor Miguel Lopez, a liberal studies professor from California State University, Monterey, whose research focuses on the use of multicultural literature as a tool for social justice and academic excellence in urban schools.



PROFESSIONAL DEVELOPMENT FOR TEACHERS A KEY PART OF SAYS SUMMIT

At the May 2013 SAYS Summit, over 50 teachers accompanied their students to the Summit. In an hours-long afternoon session, teachers attended workshops on how to use poetry to connect to other genres in the classroom. The session was led by Miguel Lopez of California State University, Monterey.

Over the last three years, with funding from a California Department of Education's Improving Teacher Quality grant, SAYS poet-mentors have worked with English language arts teachers throughout the district to help them incorporate spoken word poetry into their classrooms as a means of improving literacy among their students. Two teachers who have participated in the intensive professional development partnership between the School of Education and Twin Rivers Unified School District shared their thoughts about SAYS and how the work has transformed their approach to teaching.



Cynthia Adebajji, a special education teacher at Martin Luther King, Jr., Junior High, has participated in SAYS workshops and hosted poet-mentors for five years.

"The SAYS ITQ process has been fundamental to my teaching. It has given me license to bring the students' world into the classroom. It helps serve as a jumping off point. Without it, there is no buy-in from the kids. SAYS helps me reach out to my students and bridge our worlds. The students have found a way to be more creative in writing, and they find they are able to master things that 'regular' students can do. It gives them a lot of confidence."



Romel Belleci, a special education teacher at Martin Luther King, Jr., Junior High, participated in SAYS workshops and hosted poet-mentors for two years.

"The poet-mentors have helped me increase the writing my students do. There is not enough writing going on in 7th grade otherwise, and when I did ask students to write it was always kind of awkward, like teaching a toddler to walk—kind of wobbly. SAYS provides more strategies and allows the students to put something down."

The Algebra Success Academy: Institutional Collaboration and Teacher-Driven Change

With support from the UC Davis School of Education, Twin Rivers Unified School District, and the California Teachers Association Institute for Teaching (CTA-IFT), teacher leaders at W.A. Allison Elementary in Sacramento launched the Algebra Success Academy (ASA) in 2010. Adapting lessons from the Algebra Project,* organizers sought to improve students' understanding of algebra while also putting teachers in charge of identifying and adapting the intervention to meet the needs of their students.

As a teacher-driven initiative, this intervention steadily expands the cadre of confident, creative teachers who are able to create and sustain a successful algebraic learning environment. The role of the School's Cooperative Research and Extension Services for Schools (CRESS) Center is to engage participating teachers in collaborative research and to document the project's impact.

After four years of study, the team of Joanne Bookmyer, director of collaborative projects in the School's CRESS Center, Marlene Bell (BA '68, Credential '71) with the CTA-IFT, and Wendy Gallimore, one of the original ASA teacher leaders and now lead teacher, have learned a few things about how to create the conditions necessary for effective teacher-driven change.

Teachers as Instruction Leaders: The Devil Is in the Details

By Wendy Gallimore, Marlene Bell and Joanne Bookmyer

Educational researchers assert that teachers should be provided with ongoing opportunities to exercise instructional leadership roles. We wholeheartedly agree with the research findings but would like to offer (hard-earned) insight into some of the "pesky details" educators who are considering pursuing these types of growth opportunities may encounter.

Our knowledge comes from our collective experience as part of a team of Northern California teachers who are leading the Algebra Success Academy, a teacher-driven effort funded by the California Teachers Association Institute for Teaching and the S.D. Bechtel, Jr. Foundation to test the idea that school change must be teacher-driven and strength-based.

Insight #1. Don't make the common mistake of assuming every teacher has the same motivation for becoming an instructional leader. One of our team leaders signed on because she felt morally compelled to meet her professional obligation to her students, while another engaged as a way to share the wealth of knowledge she'd acquired over 20 years with other teachers. This same advice extends to sustaining that leadership over time. While it's helpful to know what motivated a teacher to get involved in the first place, it's essential to know what will keep her engaged for the long haul. Finding (or creating) a variety of leadership niches that tap into individual interests, expertise, and talents is one way to maintain an infrastructure built on the collective strengths of everyone involved.

Insight #2. District administrators have copious opportunities to support and build the capacity of teachers to both teach and lead but as we've discovered, it can take a lot of energy to combat the deeply embedded cultural traditions of top-down leadership and resistance to change. How many potential teacher leaders do you know who would be willing to take the risk of stepping up to the plate if their principal routinely pulled new teachers aside to warn them that they would lose their position if students' test scores went down as a result of their "experimentation"?

Insight #3. School site administrators have numerous responsibilities including building and sustaining a school vision, monitoring curriculum and instruction, and providing leadership. The ways in which administrators choose to meet these responsibilities seems to be as varied as the individual teaching styles of classroom teachers; no two are quite the same. That said, we have found that districts with collaborative cultures tend to hire administrators who are open to practicing shared or collaborative leadership.

Insight #4. As suggested above, it's impossible to create pathways for teacher leaders without paying attention to, and addressing, cultural nuances and individual personalities. This extends to the two-sided relationship between districts/schools and teacher unions, both of which have a role to play in elevating the professional stature and self-regard of teachers. District and school leaders need to find new ways to work with teachers to create opportunities to exercise shared or distributed leadership roles.

Insight #5. Instructional leadership is messy; as one of our team members often reminds us, the path to leadership is not a linear equation but rather a scatter-gram sometimes connected by a line. To change educators' perceptions about leadership, we have to expect and allow for all participants, including the teacher leaders, their teaching colleagues, and school/district leadership, to make mistakes along the way. As this quote attributed to James Joyce reminds us, "Mistakes are the portals of discovery."

*Founded in 1982 by Robert Moses, the Algebra Project, Inc. is a national, nonprofit organization that uses mathematics as an organizing tool to ensure quality public school education for every child in America. Moses argues that "every child has a right to a quality education to succeed in this technology-based society and to exercise full citizenship."

Partnering with Industry to Create a Picture of Student Preparedness in

STEM



A big part of the challenge of preparing students for the 21st century is preparing them to enter a job market dominated by STEM (science, technology, engineering and math) fields. The UC Davis School of Education is addressing this challenge on many fronts, including partnering with regional business and industry leaders to better understand regional STEM career opportunities and the steps that industry, schools, and higher education must take to ensure more students are successful moving forward.

In partnership with NextEd, the School's Center for Education and Evaluation Services (CEES) has conducted an in-depth review of selected career pathways from high school to job placement in critical STEM occupations aligned with Next Economy, the Capital region's economic development strategy.

The work is focused on careers within three STEM fields in the six-county Capital region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties). This work is part of a larger effort to establish a regional network, the Capital Area Regional STEM Alliance, with assistance for planning from the California STEM Learning Network.

Specific careers investigated in each of the STEM fields that were targeted include:

- **Healthcare:** radiological technologist and clinical medical technician
- **Agriculture:** plant breeder and pest control advisor
- **Clean Energy:** solar installer/designer, water resource specialist, and environmental scientist

"Our task was to choose careers in our region where there is expected economic growth and need, and for which there are locally available college or training programs," said Theresa Westover, CEES director.

One challenge to having students pursue careers in STEM is that they have very limited knowledge of the wide variety of options, according to Westover. "Too often kids list doctor, veterinarian, and nurse as the only STEM careers to pursue. We are hoping our research will enable the Alliance to provide concrete information and examples for students, high school counselors, and teachers to open up their understanding of the possibilities," she said.

In addition to talking to industry leaders, managers, job holders in the careers they highlighted, and educators, Westover and her colleague, evaluation analyst Lisa Sullivan, researched regional school and student data to ascertain how well-prepared students are to enter advanced STEM courses in high school and eventually the STEM job market.

For instance, they looked at the percentage of high school graduates meeting California State University and University of California admission requirements, scoring 1,500 or above on the SAT, and having access to computers in the classroom, among other items. They also investigated the recent pattern of student achievement in math and science, as demonstrated by standardized test scores, including ACT passage rates in STEM subjects, for students in the region.

According to Westover and Sullivan, test scores provide a positive indication of the level of preparedness among students, with scores tending to increase over the five-year span investigated

"Too often kids list doctor, veterinarian, and nurse as the only STEM careers to pursue."

– Theresa Westover



STEM (continued)

(2008-12). "This indicates, at least in part, that students in our area have a growing skill set in areas related to STEM and have a growing foundation for college-level coursework in these career areas," they reported.

Westover cautions, however, that it is "really hard to draw a direct line between schools and industry or even between high school and college due to the difficulty of identifying data sources that can be linked at the individual student/employee level."

To provide a more detailed map of the specified career paths they studied, Westover and Sullivan are developing a database with the following information:

- The industry sector of the career
- The colleges offering training in the career area
- The type of degree or certificate offered
- The length of the program or units required
- An overview of coursework requirements
- A list of any applicable internships for the career path
- The typical class size of the educational/training program
- The cost of the program
- Projected growth in job opportunities regionally

It will serve as a prototype for a searchable database that could be developed for the region. They also hope to create short video clips of interviews with job holders. Ultimately, Westover and Sullivan hope their work will be useful to school districts to take action in guiding their students on the path to success in STEM subjects and careers.

"Our region's schools are key to economic and workforce development," said Linda Christopher, NextEd's director of educational innovation. "We are excited about continuing our efforts with the Capital Area Regional STEM Alliance (CARSA) and to collaborate and help foster the development of STEM-related fields and educational attainment for the youth in the greater Sacramento area."

Note: NextEd (formerly known as LEED) is the premier employer-education partnership in the six-county Capital region. Their scope of work is to advance programs and policies that prepare students for success in the next economy.

EdForward: Bridging Research and Practice through Entrepreneurial Partnerships

The UC Davis School of Education has been committed to bold innovation from its inception. Determined to do work that has relevance to real educational challenges in and out of schools and to be willing to try a different approach to solving ongoing challenges, the School established a center within the School dedicated to applying entrepreneurial principles to the development of products and services for students, teachers, parents, and community leaders.

EdForward: the Center for Innovation in Education was launched in 2010. Its first director Traci Schmidt helped build partnerships, researched hundreds of potential projects, and is now driving the launch of a novel project called Navigate Autism (see more below). In November 2012, Cynthia Sommer joined as the center's new director. Over her 20-year career, she has cultivated a diverse background in corporate and nonprofit management, healthcare marketing, online education, and product management. She has been a business instructor at local universities and community colleges and received an Outstanding Service Award from UC Davis Extension. She earned a BA from Stanford University and an MBA from Wharton.

In her role at the helm of EdForward, Sommer must wear many hats—from product developer to convener, conduit, and cajoler. Her most basic goal is to “make sure the pipeline stays packed with ideas for the School to spur innovation in education.”

“EdForward has the opportunity to strike up different kinds of partnerships, ranging from traditional K-12 relationships, to perhaps more disruptive ones, where we can be involved with game-changing companies or technologies,” said Sommer. “We are thinking double-bottom line, where new initiatives make a difference for all students while also being self-sustaining.”

Navigate Autism

One of the most exciting projects that has advanced from the EdForward pipeline is Navigate Autism, a collaboration that brings together information and resources to help parents of children with an autism spectrum disorder (ASD).



Cynthia Sommer

Undertaking months of research, focus groups, and discussions with families, providers, insurance companies, and regional centers—all stakeholders in the complex system of care in California—Schmidt and others, including the UC Davis MIND Institute are working to launch a one-stop digital collaborative. Education professor Peter Mundy also consulted on the project.

“The hub could simplify the administration of autism treatment and services through a website of collaborative tools and development of a system to personalize content for those who navigate the system of care,” said

Schmidt. “Users will include parents, care providers and payers who will benefit from increased efficiency, reduced stress, and better information. Bottom line, we want to make it easier and more accessible for parents to make informed decisions.”

“One child may have six different organizations providing or administering services to her, including a medical doctor and her school. The parents are the gatekeepers. The Navigate Autism project flips the usual paradigm from pushing information out to first educating parents about the system of care and asking what the parents need. As a result, it has the potential to provide an easier way to get all the stakeholders on the same page for the child,” said Schmidt.

The final prototype is slated for launch in July (a name for the final product is yet to be determined). “If we are successful in connecting all the stakeholders in this way, we can significantly improve the day-to-day lives of these families and the educational outcomes for students with autism,” said Schmidt.

Summer Enrichment Camps

EdForward serves students directly, through its summer enrichment programs. Beginning with just a few camps in summer 2011, the program has grown in number of offerings and geography. “UC Davis and the School are an attractive alliance, and administrators are thrilled we’re bringing our programs to them,” said Sommer. She cited Andee Press-Dawson, director of community programs, as having cultivated partnerships with Campus Recreation and other regional partners, including Hacker Lab, Loomis School District, and

NextEd. A number of scholarships are also available for students with need. A sampling of programs includes:

- **Adventures in Enrichment Camps** (grades 2-8), offers week-long courses in subjects from cooking to robotics to dinosaurs.
- **Jumpstart to College** (entering 12th graders), explores everything about applying to and succeeding in college in a two-week summer session.
- **STEM Summer Camp for Girls** (grades 5-7) motivates students to take on the rigors of high school science, technology, engineering and mathematics (STEM) classes. Courses are offered in a variety of communities, including Chico, Colfax, Folsom and Loomis.
- **Summer Fun with a Brain** (grades 5-8) taps into the “maker” movement, with 3-D printing and product development, among other things. Offered off-campus at West Sacramento Early College Prep and the Hacker Lab, a place for programmers, designers, and entrepreneurs in Sacramento.

Projects in the Pipeline

There are many stakeholders in any given context who can benefit from the power of the School’s research and expertise, and vice versa, says Sommer. The EdForward team constantly scans the field for potential collaborations, talking to parents, educators, administrators, and industry to explore new solutions for ensuring young people thrive in our region. Here are some projects in development.

School of Education Portal:

A website to promote the School as a thought leader and regional resource on education innovation and for community building with our network of educators and other interested constituencies. “By centralizing information about the multiple offerings within the School,

we’ll make it easier for people to engage with us and allow us to get know who is coming to the site and to School events,” Sommer said.

Roominate: A DIY wired dollhouse-building kit, designed for kids (girls, in particular) to have fun with STEM while building hands-on skills and confidence. Recommended for ages 6-10, the Roominate kit brings together creativity and engineering through basic circuit building, furniture building pieces, and decorating accessories. In a meeting with the company founders, ideas ranged from developing activity guides and STEM-based lesson plan, to workshops and summer camp sessions.

College Success Strategies: Two modules are proposed to help improve the college readiness level of local high school students, create a smooth transition for students entering college, and promote local higher education options. The Learning Exchange and Sacramento City College, Davis Center, have indicated interest in the modules, which can be offered at regular intervals throughout the year to coincide with new quarter/semester enrollments.

Education Technology: Leveraging the School’s expertise in education technology and its connection to a vast network of teachers, EdForward is considering an “educators as entrepreneurs” event to bring teachers into the discussion about educational technology and to tap into the pool of venture capital funding. “There is a lot of ed-tech investment by venture capitalists going to developers, but not as much to understanding whether any of the products actually facilitate learning,” said Sommer. “There are resources within the School that can help answer that.”

“All of these projects let us put our stake in the ground as innovators, promote the School’s expertise, and build the expanse of our relationships. If some of our pipeline converts to viable programs or new business entities, that’s all the better for the School and EdForward because it strengthens our ability to take to trial the next idea for innovating education.”

For more information on

EdForward, visit <http://education.ucdavis.edu/edforward> or contact Cynthia Sommer at csommer@ucdavis.edu.



School of Education Alumni Receive Soderquist Award for Exceptional Support to UC Davis

“...they get genuine pleasure from their service to the School by taking every opportunity to participate in events, meetings and initiatives...”

– Harold Levine

Sandi Redenbach (BA '72, Credential '73) and Ken Gelatt (BS 67, Credential '68) received the 2013 Charles J. Soderquist Award at UC Davis.

The Soderquist Award was named in honor of the late Charles “Charlie” Soderquist—a UC Davis alumnus, management professor, and well-known Sacramento-area entrepreneur and philanthropist. The award, which was created by a philanthropic gift from the Soderquist estate, recognizes exceptional volunteer leadership and support of philanthropy at UC Davis, and honors UC Davis supporters whose efforts as volunteers have made a significant and lasting impact on the university.

“We are both so honored by this recognition,” said Redenbach. “We’re still in a little bit of shock.”

The couple are clearly more than worthy of the recognition. They have given time, financial support, and passion to the UC Davis School of Education, Robert and Margrit Mondavi Center for the Performing Arts, and the UC Davis Mini Medical School, to name just a few of the areas on campus that have benefitted from this dynamic duo’s dedication to their alma mater.

“Sandi and Ken’s commitment to philanthropy and passion for UC Davis truly exemplifies Charlie Soderquist’s spirit and legacy,” said Chancellor Linda P.B. Katehi at the reception to honor them on May 8.

Redenbach and Gelatt are both two-time UC Davis graduates—completing their bachelor’s degrees and then teaching credentials. Before retiring, they each spent more than 40 years in Yolo County classrooms: Redenbach as a speech, drama, and English teacher, and Gelatt as a mathematics teacher and coach. After 16 years of teaching junior high and high school in Woodland, Redenbach founded the Woodland Joint Unified Independent Learning Center in 1988. During her tenure, the Center graduated more than 80 students who would have otherwise dropped out of high school.

Redenbach also helped to build early alumni activities such as reunions and a teacher appreciation event for the School, and she is the founding chair of the School’s Alumni Council.

The couple’s philanthropic example continues to demonstrate exceptional leadership, as well. In 2008, Sandi created the fourth endowed scholarship fund at the School of Education with a gift of \$53,000 to establish the Sandi Redenbach Students-at-Promise Award. Two years later, she created a



Sandi Redenbach and Ken Gelatt with 2012-13 Guardian Teacher Scholarship recipient, Tanya Anaya (left).



charitable remainder trust with a real estate asset valued at more than \$300,000. That same year she and Gelatt were the first education alumni to include the School in their estate plans.

This fall, Redenbach inspired others through a \$5,000 matching pledge for the School’s Power of 10 Scholarship Fund, a fundraising effort to raise scholarship funds during the School’s 10th anniversary. Her match of \$5,000 motivated School of Education staff, faculty, and alumni to match her pledge in less than three weeks. Soon after, Redenbach inspired her friend and fellow alumnus, John C. Brown, to match her commitment to the scholarship fund with his own matching pledge of \$5,000, which was matched less than 10 weeks later.

“In all my years working with Sandi and Ken, it is abundantly clear to me that not only are they two of the School’s most dedicated alumni,” said Dean Harold Levine, “but also they get genuine pleasure from their service to the School by taking every opportunity to participate in events, meetings, and initiatives where they can be advocates for our mission, for our people, and for philanthropic efforts.”

Beyond their devotion to the School of Education, Redenbach and Gelatt provide their time and financial support to several UC Davis organizations:

- Gelatt was a supporter of the development of the Marya Welch Tennis Center.
- They both volunteer and give to the Mini Medical School.
- Redenbach is vice president of the Friends of Mondavi and has been volunteering as an usher since the Mondavi Center opened.
- Redenbach is also a member of the Herbert A. Young Society in the College of Letters & Science and is an active member of University Farm Circle.
- Redenbach is a donor and serves on the School’s Words Take Wing committee to promote its annual children’s literature event.

Redenbach, who struggled as a student in high school and was initially denied admission to UC Davis because of a transcript error, attributes her motivation for giving back to campus to her gratitude for her education. “For me the privilege of getting an education was huge. I didn’t expect it to happen, and I am so grateful that I was able to better my life.”

Gelatt credits his wife with inspiring him to get involved. “There is something about Sandi’s passion that rubs off on you,” he said.

The Soderquist Award comes with a \$5,000 prize for recipients to give to the university program or area of their choice. Redenbach and Gelatt have chosen to give the \$5,000 to the Guardian Teacher Scholarship to support former foster youth in their pursuit of a teaching credential at the School of Education. This program was established through a partnership between the School of Education and the Guardian Scholars Program at UC Davis, with seed funding from the Stuart Foundation.

“The Guardian Scholars and Guardian Teacher Scholars programs have been a blessing,” said Tanya Anaya, the 2012-13 recipient of the School’s Guardian Teacher Scholarship. “Because of these programs I met Barbara Goldman [director of teacher education], who gave me support and guidance and helped me develop the wings I feel almost sprouting from my back. Because of these programs I stayed in Davis, got on track, changed majors, graduated, got into the School’s teaching credential program, and began realizing my childhood dream of becoming a teacher. None of this could have happened if it weren’t for the scholarships. I couldn’t afford such an education without it.”

Always thinking about making a difference for students most in need and simultaneously trying to inspire others to give, Redenbach explained why she and Gelatt decided to give the \$5,000 to the Guardian Teacher Scholarship. “We thought that the gift would give higher visibility to the program. Besides, I can’t think of anyone more at risk than someone who has lived in the foster care program. It’s important that people support other people. That’s our job, our gift for being fully human.”

Giving Opportunities

Gifts to the Guardian Teacher Scholarship Fund support former foster youth in their pursuit of a teaching credential at UC Davis. To make your gift today, go to <http://giving.ucdavis.edu/SchoolEd/GuardianTeacherScholarship>.

In Appreciation

The School of Education is grateful for the support of all our donors. Some make gifts when a family member, friend, teacher or other significant person dies. We also receive gifts honoring people who made a significant impression on someone’s life, in gratitude for someone’s mentoring support or in recognition of achievement. We gratefully acknowledge all of these gifts.

In Honor of

- Donald Arnstine
- Davis Campbell
- Calvin Crabill
- Richard Figueroa
- Barbara Goldman
- Douglas Minnis
- Sandra Murphy
- Julius Sassenrath
- JoAn Skinner

In Memory of

- Jon Wagner
- George Yonge
- Gianna Zappettini
- Marten and Nell Bakker
- Hugh and Shirley Black
- Jack Lowry
- Victor Perkes
- Michael Smith



THE POWER OF 10

Inspiring Gifts Lead to Scholarships

As part of the UC Davis School of Education's year-long celebration of its tenth anniversary, alumni, faculty, staff, emeriti and friends have banded together to launch the Power of 10 Scholarship Fund. Gifts will be immediately put to work providing scholarship funds to students with the greatest financial need in the 2013-14 academic year. It's not too late to make your gift. Gifts to the Power of 10 Scholarship Fund will be accepted through the end of June 2013. For more information, visit <http://education.ucdavis.edu/power-10-scholarship-fund>.

Featured Power of 10 Gifts

Gifts and pledges to the Power of 10 Scholarship Fund have reached more than \$32,000 (as of May 15). Several gifts made over the course of this academic year inspired others to give. Here we share the thoughts of some of those who have made a gift (or two) to the Power of 10 Scholarship.

Sandi Redenbach (BA '72, Credential '73), Alumni Council Chair, made a \$5,000 matching pledge, which was matched in less than three weeks.

"I was honored to serve on the committee that came up with the idea of having a student scholarship initiative as a really meaningful way to commemorate the School's ten-year anniversary. I love the concept of the Power of 10 because it encourages people to consider giving anything from \$10 to \$10 x \$10 or more. I owe a great deal of my success to my education at UC Davis. Giving back to help students at my alma mater is one way I have of showing my gratitude."



100 percent of teacher education faculty made gifts.

Teacher Education Faculty,

100 percent of the faculty group made gifts.

"I'm giving to support new teachers who should know that those who work here believe it's the best place to learn and teach. It's a tough job and we appreciate the dedication of new teachers, so we try to provide financing to make it possible for all qualified candidates to participate and focus on their developing classroom skills."
– Pauline Holmes, lecturer/supervisor

Education Graduate Student Association, made a gift of \$450 to signify a dollar for each enrolled student in education this year.

"EdGSA decided to give to the Power of 10 Scholarship Fund on behalf of every student currently enrolled in the School of Education. We made this gift out of appreciation for the exceptional educational experience we are benefiting from at UC Davis and a belief in the importance of expanding access to this program to others who are dedicated to the improvement of our education system." – EdGSA Officers



John C. Brown

John C. Brown (Credential '72), made the second \$5,000 matching pledge, which was matched in less than 10 weeks.

"In making my gift to the Power of 10 Scholarship Fund, my conscience was my guide. We need more good teachers, and I think it is important to help make that happen."

Christian Faltis, Dolly and David Fiddymont Chair in Teacher Education, made the lead faculty gift with his wife Annie.

"Annie and I live in a modest home, but we live abundant lives, and we believe in the power of education to affect the lives of the coming generations of children and youth. We decided to give to the Power of 10 Scholarship Fund because the School of Education has done so much for the region in terms of preparing top notch, knowledgeable, and caring teachers. I know firsthand that many students in our credential programs struggle financially, and they work tirelessly to become well-prepared teachers of children and youth. Giving to the Power of 10 is an action that advocates for teachers and education, in general."

Paul Dilley (MA '86, Credential '87), community college history instructor

"I enjoy giving to the Power of 10 Scholarship Fund because I know it can really make a difference for students. When I was in the credential program back in 1986-87, I received two small scholarships. That financial boost really helped. To a fellow alum considering a gift to the fund I would say, 'Yes, donate!' I am sure that current credential candidates will be very appreciative, allowing them to worry less about finances and to concentrate on their studies and their student teaching."



EdGSA officers (from left): Anne Stephens, Colin Dixon, Kelsey Krausen, and Mary Stewart

School of Education Student Services Staff, 100 percent of this staff unit made gifts.

"I witness firsthand how much our students struggle to fund their education. I also see the excitement in their eyes when they speak of their passion for the field of education, whether it be to teach, perform research, or be a professor. If my small contribution can be paired with many other contributions, then that will become a 'big' deal." – Mary Reid, director of Student Services

Thanks to all of those who have provided financial support to the School of Education. Your gifts have power.



Paul Dilley

Power of 10 Donors (as of May 24, 2013)

- | | |
|--|------------------------------------|
| Jamal Abedi & Fereshteh Hejri | Elizabeth Flores |
| Anonymous (5) | Leann Fong-Batkin |
| Steven Athanases | Beth & John Foraker |
| Linda Baldwin | Michele Fortes |
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| Joan & Matthias Zimmermann |

Recent Gifts and Grants

Make a World of Difference for Students, Teachers, and Researchers (Gifts and grants made between December 1, 2012 and April 10, 2013)

California Teachers Association – Institute for Teaching

\$77,000 to support Year Three of the Algebra Project, which provides teachers with professional development in approaches to engage students in active learning and to increase the participation of their families in school and math activities.

Noyce Foundation

\$400,000 to renew funding for STEM²: The Power of Discovery, a project of the California AfterSchool Network and the California STEM Learning Network to build collaborative partnerships between schools and afterschool organizations, by mobilizing a broad coalition of community partners with STEM (science, technology, engineering and math) expertise and resources. STEM² will enhance school-based STEM instruction and expand out-of-school STEM learning opportunities for more than 450,000 students statewide.

Nancy and Tom Patten

\$25,000 matched by UC Davis Foundation Matching Fund to grow the endowed Farer/Patten Award for students in the teaching credential/MA program.

Sandi Redenbach and Ken Gelatt

\$1.65 million bequest to support the Sandi Redenbach Students-at-Promise Award in perpetuity, an endowed fund

to support scholarships for students in the teaching credential/MA program. This gift helped the university surpass its goal of raising \$120 million for student support through The Campaign for UC Davis.

Susan Schnitzer

\$25,000 matched by UC Davis Foundation Matching Fund to grow the Susan Schnitzer Fellowship in Teacher Education, an endowed fund supporting scholarships for students in the teaching credential/MA program.

S.D. Bechtel Jr. Foundation

\$550,000 to renew funding for STEM²: The Power of Discovery

Spencer Foundation

\$36,900 to assistant professor Lee Martin for his project “Adaptive Expertise in ‘Do-It-Yourself’ Engineering Design Projects, in which Martin will study the development of adaptive expertise in an out-of-school engineering and design club in which 12-18 year olds work with adult mentors to complete projects of their own choosing.

Stuart Foundation

\$375,000 to the Center for Applied Policy in Education to support a Whole System Change program in four Northern California school districts.



Student Services staff made the lead staff gift to the Power of 10.

Give to the POWER OF 10 Scholarship Fund

- **Check or Credit Card:** Make a gift via check payable to “UC Davis Foundation” or by credit card using the enclosed envelope.
- **Online:** Make a gift via credit card using our secure website: <http://giving.ucdavis.edu/schooled/powerof10scholarship>.

For more information, contact Doreen Barcellona, Associate Director of Alumni Relations & Annual Giving, at dabarcellona@ucdavis.edu or (530) 754-2131.

SCHOOL REACHES OUT TO FRIENDS AND ALUMNI



Friend-Raising in San Diego

Mary Catherine Swanson (Credential ‘67) and her husband Tom hosted UC Davis School of Education alumni and friends from the San Diego area in their home on April 4. Dean Harold Levine joined the guests to enjoy refreshments and conversation about the School.

Levine spoke about the “regionally relevant, nationally prominent” School that is experimenting with innovative ideas, including a web-based tool for parents of children with autism. “We need to ask the same questions parents are asking: What difference will your research make for my child?” said Levine.

Mary Catherine Swanson is a member of the School’s Board of Advisors, the founder of internationally recognized college-prep program AVID, and recipient of the 2010 Cal Aggie Alumni Association’s Distinguished Achievement Award.

Shakespeare

Workshop and Year-Long Academy Help Teachers Strengthen Teaching of the Bard

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

For a second year, the UC Davis School of Education, in partnership with the Robert and Margrit Mondavi Center for the Performing Arts at UC Davis, Globe Education in London, and the Shakespeare Theatre Association, offered a three-day series of workshops on teaching Shakespeare.

In January, eight artists from six theater companies from across the U.S. and England offered workshops on teaching Shakespeare to nearly 70 middle school and high school English and theater teachers.

The goal of Shakespeare Works When Shakespeare Plays (SWwSP) 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 work with teachers on active and playful approaches to enliven the teaching of Shakespeare. Workshops ranged from helping students understand meter and archetypes in Shakespeare's plays to engaging students in a scene from Macbeth to using Instagram to make Hamlet's Ophelia come alive.

Teachers who attended this and the first conference in 2012 say the workshops have generated years of possible lesson plans and reinvigorated their teaching of Shakespeare.

"I just want to report a very successful run of *A Midsummer Night's Dream* here in Belt, Montana," wrote Jeffrey Ross, a 2013 SWwSP participant. "We applied exercises and ideas from the conference with great results. Performing with confidence and rarely dropping a line, our high school and middle school students delighted our audiences. The Davis conference made a huge difference in both the quality of the student experience and the performances. I can't thank you all enough."

For more information on this unique professional development opportunity, visit <http://shakespeareplays.ucdavis.edu>.

Left: Student performs Shakespeare's *Henry V* in the culminating performance of the 2012 Academy



Above: Students perform in *A Midsummer Night's Dream*, directed by SWwSP participant and teacher Jeffrey Ross

Another Cohort of 12 Embarks on Year-Long 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 UC Davis School of Education, Globe Education in London, and the Los Rios Community College District—provides in-depth learning opportunities for theater and English teachers of grades 7-12.

Now entering its sixth 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 and Los Rios Theatre and English Department faculty and by visiting practitioners from the Globe. 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.

In fall 2012, Rosalie Vanderhoef and Chancellor Emeritus Larry Vanderhoef pledged \$30,000 to the School to establish the Vanderhoef Globe Academy Fund to support the Globe Academy. To learn more about the Globe Academy for Teachers, visit <http://www.mondaviarts.org/globe>.



Globe Academy 2013 teachers at launch party (one participant was unable to attend the launch).

Una Tarde de Matemáticas: Family Math Day

By Charisse Ceballos

In March, Al Mendle, lecturer/supervisor in the UC Davis School of Education elementary teaching credential program, and his team of student teachers joined the St. Mary's Vacaville Unified School District (VUSD) Education Forum to put on *Una Tarde de Matemáticas*, or an afternoon of math, following Spanish mass at St. Mary's. In its sixth year of service, the St. Mary's VUSD Education Forum helps Hispanic parents bridge communication gaps and get involved in their children's education.

"One of the things talked about were parents saying, 'We know how to do math, but we don't understand how they're doing the math here in school,'" said Denise Fracchia, English learner program coordinator for VUSD.

Una Tarde de Matemáticas engaged elementary school children in higher order problem solving, and focused on familiarizing parents with Common Core math standards. "Parent education is what we're about," said Fracchia. The event attracted 50

families, with over 200 people participating, and included volunteers from Kaiser Permanente, Delta Kappa Gamma sorority, Vacaville High School, and Will C. Wood High School.

A grant from the Vacaville Public Education Foundation set the event in motion. The grantmakers contracted Mendle, who marshaled 48 of his student teachers to create and demonstrate bilingual math instruction for parents. The instruction packets were connected to Common Core standards for math and provided parents with activities to promote math at home.

The student teachers engaged the parents and children so well that some refused to stop and eat or head to baseball practice because they were too busy learning at a station. "That's when you know the day was a triumph."

— Denise Fracchia



Parents and students learn math together at Family Math Day.

Words Take Wing Event

Introduces Margarita Engle to More than 1,000 Young People in Annual Lecture



Margarita Engle

Margarita Engle, the ninth author to present in the UC Davis School of Education's annual *Words Take Wing: Honoring Diversity in Children's Literature* lecture series, touched the lives of over 1,000 middle and high school students and teachers during two days in February.

On February 12, Engle spoke to about 50 sixth graders at the Turner Library in West Sacramento. In the afternoon, she visited children at Sutter Children's Hospital, Sacramento, and the UC Davis Children's Hospital, reading to some of them at bedside. The next day, she spoke to nearly 1,200 students and teachers in Freeborn Hall on the UC Davis campus and spoke to a smaller crowd in the evening.

"As the children, teachers, and chaperones filled Freeborn Hall for the matinee, the energy and excitement was palpable," said Words Take Wing Committee co-chair Shannon Cannon, a lecturer/supervisor in the School's elementary credential program. "Margarita entertained, informed, and inspired them by sharing the experiences that compel her to tell the stories of people who, despite remarkable contributions and achievements, have been left out of the history books."

Engle, a Cuban-American, is the winner of the first Newbery Honor ever awarded to a Latino or Latina. Her award-winning young adult novels in verse include *The Surrender Tree*, *The Poet Slave of Cuba*, *Tropical Secrets*, and *The Firefly Letters*. *The Wild Book* won the 2013 Mock Pura Belpre from the Heartland chapter of Reforma: the National Association to Promote Library and Information Services to Latinos and the Spanish Speaking. Her latest book, *The Lightning Dreamer*, came out in March. *When You Wander: A Search-and-Rescue Dog* was published in April.

"Margarita's novels in verse make content and concepts very accessible, even to the most reluctant reader," said Cannon. "The lyrical rhythms are like invitations—ushering us into a period of time we may have little background or possibly even little interest in."

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Words Take Wing committee member Ruthie Shimomura holds the mic for a student asking the author a question.



Words Take Wing continued from page 50

Engle told her audiences that she does a lot of historical research, often reading primary texts that few people know about. In doing so, she often seeks out stories about young unsung heroes of Cuban history. "I wonder," she shared. "That's what a writer does. She wonders what it feels like for someone else. I love to imagine the voices of brave young people who made hopeful choices in situations that seemed hopeless. I choose my subjects based on their courage."

Her advice to aspiring writers is to find a quiet place to think and not to worry too much about how to write. "Not worrying is the writer's greatest challenge. Ideas are shy; they fly into peaceful places. Let your imagination soar," she told the group of sixth graders at the Turner Library.

In 2014, *Words Take Wing* will celebrate its tenth year of presenting the best and most notable children's literature authors to thousands of children in the Sacramento region, exposing them to a higher education environment and showing them the excitement of reading.

The School of Education's long-term goal is to create an event that will build and sustain relationships with teachers, students, librarians, and the wider community to ensure that the impact of *Words Take Wing* goes well beyond the classroom. To learn more about this event, visit <http://education.ucdavis.edu/words-take-wing>.

SCHOOL REACHES OUT TO FRIENDS AND ALUMNI

Celebrating Children's Literature and First Decade of Words Take Wing Event

Wendy Chason, a librarian in Davis and member of the *Words Take Wing* Committee, and her husband Bob Chason hosted an event to spread the word about *Words Take Wing: Honoring Diversity in Children's Literature*, the School's annual presentation that brings a renowned children's literature author to the campus. More than 50 guests learned about the program celebrating its tenth season next year.

Joanne Banducci and Shannon Cannon, co-chairs of the *Words Take Wing* Committee, quoted children whose attitudes about reading and their futures changed dramatically thanks to the program. Guests at both events had opportunities to ask questions directly of Dean Harold Levine, staff, and volunteers. The Chasons also pledged a gift of \$1,000 per year over the next five years to support *Words Take Wing*. Their gift inspired alumni Sandi Redenbach (BA '72, Credential '73) and Ken Gelatt (BS '67, Credential '68) to do the same.

If you are interested in hosting or attending an event like this in your area, please contact Loretta Pehanich, associate director of development, at lapehanich@ucdavis.edu or (530) 752-8053.



Special Thanks to Our Sponsors and Donors

Sutter Children's Center, Sacramento, is the UC Davis School of Education's Co-Sponsor of *Words Take Wing: Honoring Diversity in Children's Literature*. The following donors also helped make the 2013 program possible:

Organizations

UC Davis Children's Hospital
Raley's
Woodland Sunrise Rotary Club

Individuals

Jamal Abedi & Fereshteh Hejri
Joanne & Michael Banducci
Delee & Gerry Beavers
Judith Blum
Shannon Cannon
Kim & Eugene Cole

Paul Heckman & Viki Montera
Donna & Mark Justice
Anna & Dennis Kato
Michele Leonard-Fortes
Sandi Redenbach & Ken Gelatt
Floyd & Ruthie Shimomura

School Hosts Sixth Annual Honoring Educators Awards Ceremony

in Special Celebration of Tenth Anniversary



On May 21, 2013, the UC Davis School of Education hosted its sixth annual Honoring Educators Awards Ceremony. In honor of the School's tenth anniversary, awards were expanded this year to recognize the achievements of students, faculty, and education advocates.

More than 175 alumni, staff, faculty, and friends attended the gala event held at the Activities and Recreation Center Ballroom on campus. "This was a fantastic event and a wonderful opportunity to celebrate the School's tenth anniversary as well as the impact our alumni, faculty, and students have had on our region and beyond," said Dean Harold Levine.

A special aspect of the event this year was an effort to draw attention to the School's Power of 10 Scholarship Fund initiative launched to raise money for student scholarships in the coming academic year.

"This effort has exceeded our greatest expectations," said Adrienne Capps, assistant dean for development and external relations. "Thanks to the generosity of so many faculty, staff, students, alumni, emeriti and friends, we will be able to provide substantial scholarships to students in each of our key academic programs: PhD, EdD and teaching credential/MA. And the gifts keep coming in. We've raised more than \$32,000 to date." To learn more about the Power of 10 Scholarship Fund and how to make a gift, see p. 44.

Jack O'Connell, former California superintendent of public instruction, served as the event's honorary chair.



Gianna Zappettini



Orlando Carreón



Gatee Esmat



Douglas Minnis

2013 Honorees

Outstanding Students of the Year

Gianna Zappettini (Credential '13)

Orlando Carreón (PhD Candidate)

The Outstanding Student Award, created in 2013 in recognition of the School of Education's 10th Anniversary, acknowledges student contributions to the School, our campus and external community, and to the quality of student life. This year's recipients shared a \$1,000 prize from funds given by alumni and friends through the School's Annual Fund.

Rising Star Alumna

Gatee Esmat (Credential '07, MA '09)

Rising Star honorees are alumni who are within ten years of receiving their credential or degree (whichever is later) and who exemplify the Distinguished Alumni award criteria.

Outstanding Faculty

Douglas Minnis, Retired Faculty

The Outstanding Faculty Award was created in 2013 in recognition of the School's 10th Anniversary. The honoree is chosen from among current or retired/emeriti faculty for their contributions to the Department/Division/School of Education as educators and for their continued service and positive impact on our community, the region, and beyond.



Daniel D'Agostini



Rozanne Helms



Ken Gelatt and Sandi Redenbach

2013 Honorees (continued)

Distinguished Alumni

Daniel D'Agostini (BA '71, Credential '72)

Rozanne Helms (BA '76, Credential '77)

Honorees are chosen by an alumni awards committee from among UC Davis education alumni who work to effect positive change in schools, colleges, and universities; who serve as advocates for all learners; who focus on achieving the best outcomes for students and on making a difference in their lives; and who provide leadership in addressing the greatest challenges facing educators, students, and communities.

Outstanding Education Advocates

Sandi Redenbach (BA '72, Credential '73) and

Ken Gelatt (BS '67, Credential '68)

The Outstanding Education Advocate Award was created in 2013 in recognition of the School's 10th Anniversary. Honorees are chosen for dedication and contributions to advancing the mission of the School in our region and beyond.

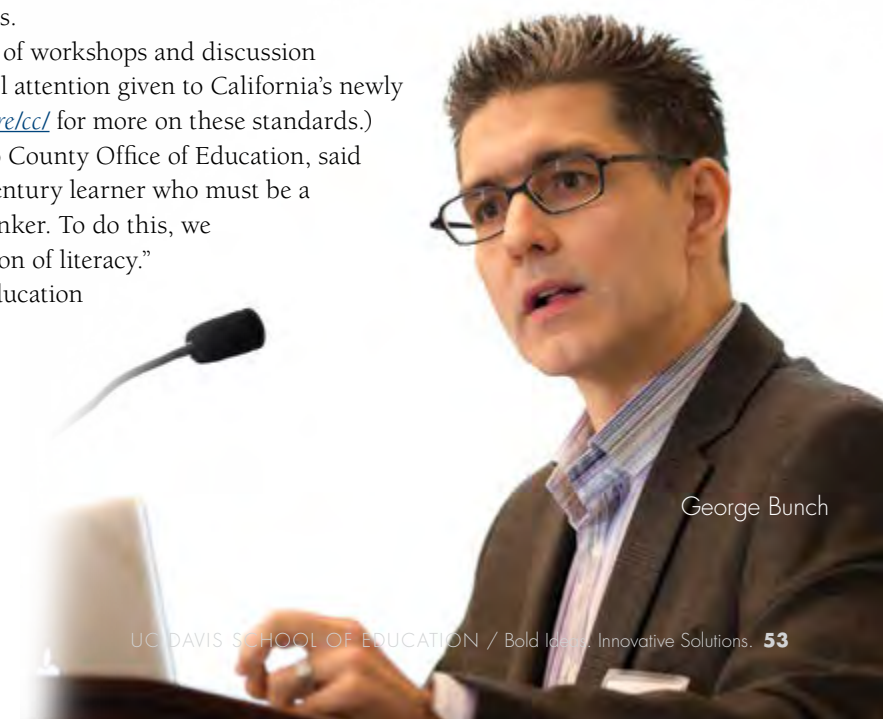
Bridging Research and Practice: A Focus on Academic Literacy and New Common Core State Standards

For the sixth year in a row, the UC Davis School of Education hosted its annual Academic Literacy Summit in February. The day of workshops and research presentations brings together teachers and 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, over 200 regional educators gathered for a day of workshops and discussion exploring what's at the core of academic literacy, with special attention given to California's newly adopted Common Core Standards (see <http://www.cde.ca.gov/re/cc/> for more on these standards.)

Summit committee member Ronda Adams, with the Yolo County Office of Education, said the "overall goal is to ensure we can fully prepare the 21st century learner who must be a problem solver, an effective communicator, and a critical thinker. To do this, we have to navigate, judge, and create a more sophisticated notion of literacy."

Keynote speaker, George Bunch, associate professor of education at UC Santa Cruz, discussed his work as part of Stanford's Understanding Language Initiative. In her introduction to Bunch, Associate Professor Kerry Enright, an expert on academic literacy in the UC Davis School of Education, said, "as a former K-12 teacher, George's research is built on very real classroom concerns and demands on students, particularly English learners."



George Bunch

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Distinguished Educational Thinkers Speaker Series

Understanding Language and the New Common Core State Standards

In her February presentation at UC Davis, titled “Understanding Language in Schools,” Stanford Education Professor **Guadalupe Valdés**, who also participates in the Understanding Language Initiative, made a similar argument to George Bunch at the Academic Literacy Summit (p. 53).

“Language in the new standards is not focused on sets of facts, but rather practices to perform—development of language competencies that lead to analysis for each discipline,” said Valdés.

“We must face the massive problem of teaching kids in a language they may not understand,” Valdés argued. This means agreeing on the definition of “academic literacy.”

“Our definitions of this are very imprecise, so we need to agree on a definition. Until we do, we are describing different parts of the elephant, and the people who are suffering are the students,” she said.



Guadalupe Valdés, Bonnie Katz Tenenbaum Professor of Education, Stanford University

The ultimate implication, she argued, is that English learners must be given access to grade level content while they are learning English. “Writing is about ideas, but we pretend with English learners that language must emerge pristine before they can engage in the academic content. We must push for comprehension before focusing on production because it is most important for learning.”

Note: The Understanding Language Initiative at Stanford University aims to heighten educator awareness of the critical role that language plays in the

new Common Core State Standards and Next Generation Science Standards. The long-term goal of the initiative is to help educators understand that the new standards cannot be achieved without providing specific attention to the language demands inherent to each content area. See <http://ell.stanford.edu> for more information.

**The School’s Distinguished Education Thinkers Speaker Series is supported in part by the School of Education Annual Fund.*

Science, Math, and Engineering—Their Influence

on National Educational Transformation

By Charisse Ceballos

Noah Finkelstein, professor of physics at the University of Colorado, presented “Science, Math, and Engineering—Their Influence on National Educational Transformation” in early February, as part of the UC Davis School of Education’s 2012-13 Distinguished Educational Thinkers Series.

“We are living in—especially for students—unprecedented times,” said Finkelstein. “We have not seen the attention that is being paid to STEM (science, technology, engineering, math) education that we do now.” At a time when the United States is trailing in global STEM education, Finkelstein argues that traditional education must be transformed to challenge students, get students to interact, and push for conceptual learning.

For instance, in introductory physics, “students learn less than 25 percent of the most basic concepts (that they don’t already know),” said Finkelstein. This is a result of the traditional model of education—a “transmissional” model centered on educational delivery.

Finkelstein argues for a shift to discipline-based education research in physics. With this approach, a focus on the use of tools and student interaction, particularly in large enrollment classes, better prepares students to tackle real world physics problems. In these “transformed” classrooms, students are interacting together, hands-on with the content they are learning about, and with the help of other student learning assistants.

At the University of Colorado, Finkelstein and his colleagues implemented an interactive environment with learning assistants and tutorials during classes, resulting in “learning gains as much as three times the national average for non-transformed classes,” said Finkelstein. These learning assistants are also the pool from which the next generation of K-12 teachers are recruited.

Understanding how students achieve in class, how to construct supportive classroom environments, and how faculty use these tools are the key to transforming education. “Recognizing that having disciplinary faculty at the table, in partnership with schools of education and in partnership with administration, is essential,” said Finkelstein.



Noah Finkelstein

Activist-Scholar Delivers Searing Talk on Inequality’s Toll on the Health of Young People and Educators’ Role in Healing the Wounds

Drawing on a line from a song by Tupac Shakur, who was murdered in a drive-by shooting in 1996, **Jeff Duncan-Andrade** makes a compelling case for seeing all students for their strengths and arguing that educators must provide hope, under any circumstances.

In his talk “Note to Educators: Hope Required When Growing Roses in Concrete” at UC Davis in February, Duncan-Andrade shared his research on the effects of inequality on the health and well-being of children growing up in the most violent and challenging communities. The talk was delivered as part of the Critical Consciousness Speaker Series, hosted by the education graduate student-run Committee for Social Justice, the School of Education, Office of Graduate Students, and the Office of Campus Community Relations.

“Young people are always half-full or half-empty,” said Duncan-Andrade. “It just depends on how we look at them.

The more we treat people as having assets, the more likely they will fill up the cup.” Duncan-Andrade’s use of Shakur’s metaphor of roses in concrete acknowledges that the urban environment is a difficult place for a young person to develop and grow, but he insists all of our students are roses, nonetheless, and are in need of nurturing above all else.

“It is an absurdity to look at a rose growing out of concrete and see only its damaged petals,” he said, referring to the grit of students to learn and grow despite their circumstances and the tendency of some educators to focus only on what they see as deficits in their students. He argues, in part through the use of medical research on the negative effects of unending stress on youth, that school can too often be a source of pain for young people, especially those living in the toughest neighborhoods like the one where he lives and teaches in Oakland, Calif.

He notes that the effects are even greater on students of color. “The biggest threat to health on the planet is inequality,” he said. “There is clear, concrete research and widespread agreement across disciplines” to support this contention. “One in three urban youth display mild to severe symptoms of Post Traumatic Stress Disorder (PTSD); this makes them two times more likely than soldiers to suffer from PTSD.”

Duncan-Andrade is associate professor of Raza Studies and Education at San Francisco State University and director of the Educational Equity Initiative at the Institute for Sustainable Economic, Educational, and Environmental Design (ISEED). In addition, he continues to teach high school in East Oakland where for the past 20 years he has practiced and studied the use of critical pedagogy in urban schools.

As a practicing teacher in one of the most challenged urban communities in America, Duncan-Andrade sees his research reflected every day in the lives of his students. “Young people



Jeff Duncan-Andrade

of color know their lives matter less,” he noted as he showed the audience a map of Oakland, with the concentration of murder and other violent crimes clearly confined to his community where most citizens are poor, African American, or Latino.

Duncan-Andrade told the crowd of educators that there are many concrete ways teachers can make their classrooms a place of refuge and hope for students, but they must begin by seeing their students not as “the other.” “I can’t put me out of my classroom,” he said. “Let’s remember who we are and where we came from. There are no weeds in our gardens; they are all roses.”

Duncan-Andrade has lectured around the world about the elements of effective teaching in schools serving poor and working class children. He has authored two books, numerous journal articles, and book chapters on the conditions of urban education, urban teacher support and development, and effective pedagogy in urban settings. To see his talk in full, visit <http://education.ucdavis.edu/video/jeff-duncan-andrade>.

Distinguished Educational Thinkers Speaker Series (continued)

Giving Children a Chance to Learn by Pitching In By Charisse Ceballos

Barbara Rogoff, distinguished professor of psychology at UC Santa Cruz, gave a talk at UC Davis titled “Learning Through Pitching In,” as part of the UC Davis School of Education’s Distinguished Educational Thinkers Speaker Series in April. Rogoff’s studies have focused on cultural aspects of collaboration, notably among the Mayan community of the Guatemalan highlands.

During her talk, Rogoff explored the idea of learning through community participation. Her research on the process of collaborative learning emphasizes how children, especially those from indigenous communities, learn by observation and contribution.

“We learn our first language by pitching in and listening. If you want to be part of what’s going on, get access to something, or learn a tool. It’s by observing and pitching in,” said Rogoff.

Rogoff argues that “learning through intent community participation” is in direct contrast with learning through “assembly line instruction,” in which there is controlled instruction of children in segregated settings. “In assembly line instruction, you are separated from the activity that you’re learning about,” said Rogoff.

Learning through community participation requires children to be incorporated into ongoing endeavors of a community

with the guidance of adults and community expectations. Children are given opportunities to contribute meaningfully to the accomplishment of a community endeavor.

“In communities where the children have opportunities to be present, this is a very effective way to learn,” said Rogoff. “But in some communities, children are often excluded from many activities of the community.”

The goal of “learning through intent community participation” is to transform participation in order to make children better learners and collaborators in the larger community. The key to this transformation, Rogoff said, “is including children’s motivation and initiative as part of what is assessed.”

With keen attention and participation, children can be trusted to responsibly contribute with initiative to these endeavors, says Rogoff. “We can all benefit from learning to do things more than one way by taking advantage of observation and collaboration.”



Barbara Rogoff

Academic Literacy continued from page 53

“If we look at academic literacy through the lens of English learners to meet the demands of the Common Core State Standards and the Next Generation Science Standards, we can generalize for all students: if ELL students are doing ‘well’ then we can be relatively confident that all students are doing well,” said Bunch.

In a case study presentation, he showed that the Common Core Standards present profound shifts in how language, instruction, and assessment are approached in the classroom. Reading and writing are no longer done for the sake of learning to read and write. Comprehension is paramount, so English learners need additional supports and teachers must learn to allow students to build on their native language resources and the English proficiency they bring to the classroom, however imperfect.

“We must put more of an emphasis on scaffolding and background knowledge that heightens student understanding and engagement,” Bunch said. “English learners can meaningfully participate in instruction through ‘imperfect language.’”

The Academic Literacy Summit was also sponsored by the University Writing Program, the Carlston Family Foundation, and the Yolo County Office of Education. To learn more about this work in the UC Davis School of Education, visit <http://education.ucdavis.edu/academic-literacy-project>.



Doctoral Students Make Presence and Scholarship Known at Prestigious Educational Research Conference



Juliet Wahleithner

The **American Educational Research Association (AERA)** hosts the world’s leading researchers in education each spring. This April, 22 PhD students from the UC Davis School of Education attended the annual meeting and presented papers covering a wide variety of topics. We feature some of the presentations here.

Parents Are Key to Latinos’ Path to College

Like most immigrant parents, Latino parents’ top priority is to provide their children with the opportunity for a better life, including the chance to attend college. But language barriers and a lack of knowledge about how to pay for college too often get in the way of Latinos realizing their dreams, according to **Lisbeth Cruz**, a PhD candidate in the School of Education.

“Given the strong familial ties of Latino communities, parental engagement is central to understanding and addressing the disparities in educational attainment among Latinos,” said Cruz.

Cruz has focused her research on the ways Latino parents participate in the last two years of high school and the first two years in college—an important transition period, especially for first-generation college students. Four findings guide her understanding of the challenges facing Latino students and her recommendations for reaching out more effectively to their parents. Read more at <http://education.ucdavis.edu/current-research/parents-are-key-latinos-path-college>.

Writing Instruction in the Age of Accountability

Most educators agree that writing is an essential skill for student success in school and in the pursuit of college and career. So the stakes are high for writing teachers. Unfortunately, often a lack of preparation and suffocatingly narrow policies of what and how to teach writing hamstring English teachers’ ability to prepare their students to master this critical skill, according to **Juliet Wahleithner**, a PhD student in the School of Education.

Wahleithner, whose expertise is in the teaching of writing and preservice teacher preparation, presented a study that took a deep look at two writing teachers and the strategies they used to navigate a system and set of policies to teach writing to their students.

“Teaching writing requires complex knowledge beyond knowing how to write,” said Wahleithner. But preservice English teachers are not required to take a specific course on writing instruction. Combine that lack of training with the pressure teachers feel, particularly at low-performing schools, to ensure their students score well on standardized tests, and Wahleithner found that a lot of teachers may be at a loss. Read more at <http://education.ucdavis.edu/current-research/writing-instruction-age-accountability>.

Shannon Pella and Alumni Present Research on Teaching and Learning Social Studies

Education PhD candidate **Shannon Pella** led three roundtable presentations accompanied by four former students from her 2012 social studies cohort in the School of Education’s MA program: Ellen Lehman, Ryan Sonnevill, Richard Dahl, and Kelly Christiansen.

- “Teaching Pluralism and Islam through Pop-Culture and Current Events: An Action Research Project,” presented by Pella and Sonnevill (Credential ‘11, MA ‘12).
- “Consider the Source: Critical Thinking through Primary Source Analysis,” presented by Pella and Lehman (Credential ‘11, MA ‘12)
- “Lessons from Action Research in Secondary History/Social Science Classrooms,” presented by Pella, Lehman, Sonnevill, Christiansen (Credential ‘11, MA ‘12), and Dahl (Credential ‘11, MA ‘12). In this presentation, each of the four teachers discussed how conducting action research supported his or her developing history/literacy pedagogy.

Pella also presented “Shifting the Paradigm for Professional Learning: Toward Participatory Teacher Professional Development Models.”

For more on the School’s presence at the 2013 Annual Meeting of the AERA, download the School’s *Research* newsletter at <http://education.ucdavis.edu/publication/school-education-research-news-brief-april-2013>.

Two School of Education Students Chosen to Participate in Prestigious Seminar

UC Davis School of Education PhD candidates **Rosalyn Earl** and **Lisceth Cruz** have been named to serve on the 2013 David L. Clark National Graduate Student Research Seminar in Educational Leadership and Policy. Only 40 doctoral students are invited to attend from hundreds of nominations from universities in the U.S., Canada, and abroad. Last year, School of Education PhD candidate Kathryn Hayes was selected.



Rosalyn Earl



Lisceth Cruz

The Seminar, sponsored by the University Council for Educational Administration (UCEA), Divisions A and L of the American Educational Research Association (AERA), and SAGE Publications, brings emerging educational administration and policy scholars and noted researchers together for two days of presentations, discussion, and professional growth. Many of the graduates from this seminar are now faculty members at major research institutions across the globe.

This year's seminar was held in April prior to the Annual Meeting of the AERA.

Two PhD Candidates Receive Dissertation Fellowships

PhD candidates **Rosalyn Earl** and **Joanna Wong** have been awarded a UC Davis Dissertation Year Fellowship for the 2013-14 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.

"I am pleased and honored to receive the dissertation year fellowship as it affirms the salience of my professional and academic work in service of improving the academic achievement of traditionally underserved students," said Wong, whose dissertation research examines elementary Spanish-English bilingual students' literacy practices and the contexts of their literacy development. "As a fellow, I will be able to focus the majority of my dissertation year on the dissertation writing process. Additionally, the award will provide funding for resources to support data analysis and an allowance to present my research at another California university."

Earl, who serves as the special graduate assistant to the chancellor and dean of graduate studies, is studying university campus climate policy and marginalized communities. "This is wonderful news and gives me the opportunity to fully engage in the final year of my dissertation," she said. "I think that it is definitely encouraging to know that the UC and the Office of Graduate Studies values research that will assist scholars and policymakers engage in higher education transformative practices."



Joanna Wong

Scholarship for First-Year PhD Student Helps Whole Family Pursue Dream of Higher Education

Diana Recouvreur, just beginning her journey toward a PhD in education, has had a lot of help along the way, not the least of which from her husband. Recouvreur and her husband Christopher were high school sweethearts, marrying early and having a son just two years after graduating. To ensure that Recouvreur could attend college, her husband put his pursuit of a college degree on hold.



Diana Recouvreur and her son

Now an Eleanor Barry Memorial Scholarship of \$4,800 to cover spring quarter education expenses is helping Recouvreur and her husband to focus on both their educations.

"Starting this PhD program was a major turning point for my family," said Recouvreur. "My husband put his own education on hold while he supported me throughout my undergraduate education. We decided that when I started this program he would finally go back to school, so we quit our jobs and made the move. My husband started his first semester at community college this January, and I am so proud of him and happy that he is able to finally pursue his academic interests."

"My funding is currently the only thing supporting our family of three. The Eleanor Barry Memorial Scholarship adds to that and means that we are able to continue pursuing our degrees and have time to spend together as a family. I am very grateful," she said.

The Eleanor Barry Memorial Scholarship is funded through a trust held by Wells Fargo and made available to graduates of six high schools located in the Monterey Park area of Los Angeles, Calif. Recouvreur is eligible to apply for the scholarship again in the coming academic year.

Graduate Students Receive Recognition at Campus Symposium

Two UC Davis School of Education graduate students won recognition and \$1,000 each at the UC Davis Interdisciplinary Graduate and Professional Student Symposium held in April.

Garrett DeHond received Best Talk in Education (\$1,000) for "Assisting ESL Students in UWP 1 Through Supplemental Online Grammar Instruction." **Rosa Manza** won Best Student Organized Session, Second Place (\$1,000) for "Implementation of Community Based, Multi-Year, Multi-faceted Program in Mexican-Origin, Rural Communities in California's Central Valley."

Two other graduate students in education presented:

- Bahareh Abhari (Paper Finalist) for "Factors Relating to the Experiences of Childhood Physical Abuse and Implications in the U.S. Legal System."
- Heather Breen (Poster Presentation) for "Moving Forward by Looking Back: Using Staff and Participant Perceptions of a Physical Activity Promotion Program for Program Improvement Purposes."

Faculty and alumni from every school and college on campus judged the work of more than 200 students.

First-Year PhD Students Present UC Davis Education Research and Outreach Programs

Every PhD student in the UC Davis School of Education is required to take the Proseminar in Education during their first quarter. The course, led by associate professor of education **Rebecca Ambrose**, is a professional induction into the field of educational research and to the Graduate Group in Education at UC Davis.

In the course, Ambrose introduces students to the landscape of educational research methodologies, purposes and theories. Students also learn how to analyze debates within education research and investigate K-12 educational outreach efforts at UC Davis. The course culminates in a poster session presentation of what students learned about each program.

- Summer Service Learning
- Strategic Alliance II – A professional development program for elementary school teachers in mathematics
- Postsecondary Educational Opportunities for Students with Autism at UC Davis
- West Sacramento Prep Charter School
- Collaborative Learning through Active Sense-Making: Physics 7 at UC Davis
- Pacific Coast Teacher Innovation Network
- I-STAR: Innovations in STEM Teaching Achievement and Research

Student Topics

- An Investigation of Learning Opportunities at the Student Farm
- Formative Assessment in Mathematics
- American Cultures, Values and the University Experience: UC Davis Academic Center
- Center for Education and Evaluation Services
- Sacramento Area Youth Speaks (SAYS) Literacy Seminars

Rebecca Ambrose and first-year PhD student Ijeoma Ononuju discuss his presentation on SAYS, a youth literacy and spoken word program offered through the School of Education's CRESS Center.

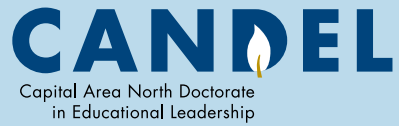


Packard Foundation Awards Dissertation Fellowship to Doctoral Student

By Dawn Rowe

Masami Nancy Herota, a doctoral student in the UC Davis School of Education's Capital Area North Doctorate in Educational Leadership (CANDEL) program, was recently awarded \$5,000 by the David and Lucile Packard Foundation-CSU Dissertation and Pre-Dissertation Fellowship for 2012-13 for her proposed study titled, "Transitional Kindergarten – Case Studies of School Districts' Implementation Approaches."

Herota's proposed study focuses on the Kindergarten Readiness Act of 2010. This statewide initiative, phased in over three years beginning in 2012-13, establishes a new transitional kindergarten class for children who do not meet the revised age and cut-off date for kindergarten enrollment in California. In her study, Herota will explore whether and how implementation approaches for transitional kindergarten produce curricular and



instructional approaches that differ from kindergarten and early childhood education practices.

Herota's dissertation chair, associate professor Gloria Rodriguez, notes, "Nancy is a most deserving student and uniquely positioned as a leader to conduct an analysis of local interpretation and implementation approaches to transitional kindergarten. I believe her work will provide insights that will inform her colleagues' ongoing efforts and our understanding of the district-level dynamics of educational policy in California."

The CANDEL (EdD) program is a partnership between UC Davis and Sonoma State University, designed to identify exemplary educational leaders in schools, community colleges, and related educational areas and support their development as scholar-practitioners in their fields.

Agricultural Education continued from page 21

agricultural education departments in 305 schools and over 700 agricultural education teachers.

Sticking to its roots, agricultural education continues to be organized around its original three key areas: classroom/laboratory instruction (contextual learning), supervised agricultural experience (work-based learning), and student leadership organizations (including the national FFA, formerly known as Future Farmers of America). But the world has definitely changed since 1917, and according to Martindale, "ag ed" is as relevant as ever.

"In the old days, ag ed really was intended to prepare kids to make a living in their agrarian communities," said Martindale, "but that is no longer the case. Now it prepares individuals to be critical thinkers and active citizens of the 21st century, capable of understanding the world around them and providing leadership in all facets of their lives."

Martindale also says that agricultural education can be a haven for students who may be struggling in school. "Some kids can get kind of lost in high school, and ag ed can provide them with more hands-on learning opportunities that they can relate to," she said. They often also learn practical skills, such as how to write a resumé and make a formal presentation. "There is just a lot of applied learning, and if you don't do it right, we don't fail you. We teach you how to be a success."

Martindale was herself an agricultural education teacher from 1986 – 2003 in Lemoore, Calif. She earned her teaching credential and master's degree at Cal Poly and was credentialed as a school counselor. Eventually, she concluded that she could do more for kids teaching agricultural education than she could as a school counselor. "I could do a lot more counseling in a truck taking kids to a field than sitting in an office waiting for them to come in or be sent in. All I had to do was listen," she said.

She reflected on the fact that women now play a significant, if not dominant, role in agricultural education, but for her this was not always the case. "One of my most vivid memories is being asked by the school board when I was hired if I thought I could really fill a man's shoes," she said. At the time, she was one of only about five women in the state to teach agricultural education. In 2003, when she joined the School's Teacher Education faculty, she was only the second woman to teach agricultural education at UC Davis.



Lynn Martindale

UPCOMING Events

School of Education Summer Enrichment Camps

The UC Davis School of Education is pleased to offer a wide variety of summer enrichment courses for students in grades 2 through 12. Visit <http://education.ucdavis.edu/summer-camps> for more details and registration information.



Adventures in Enrichment Summer Camps for Grades 2-8

June 17 – August 9, 2013
8:00 a.m. – 5:00 p.m.

Jumpstart to College: Summer Workshops for Students Entering 12th Grade

July 29 – August 8, 2013
9:00 a.m. – 12:00 p.m.

Young Writers' Camps

The Area 3 Writing Project will host two camps this summer:

- June 17-21 and June 24-28 (9:00 a.m. – 12:00 p.m.) for students entering grades 3-5
- June 17-21 (9:00 a.m. - 3:00 p.m.) for students entering grades 6-8

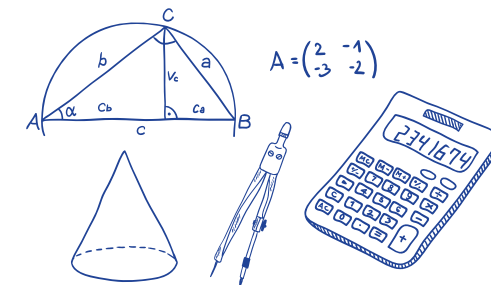
<http://education.ucdavis.edu/general-information/young-writers-camps-0>

UCDMP Open Summer Institute: Developing Number Sense in the Early Grades

July 15-19, 2013
8:30 a.m. - 3:30 p.m.

Location: Vacaville Unified School District; Vacaville, Calif.

Open to teachers in grades PK-3. Register at <http://education.ucdavis.edu/event/ucdmp-open-summer-institutes-2013>.



UCDMP Open Summer Institute: Transformational Geometry

July 29 – August 2, 2013
8:30 a.m. – 3:30 p.m.

Location: Vacaville Unified School District; Vacaville, Calif.

Open to teachers in grades 8-12. Register at <http://education.ucdavis.edu/event/ucdmp-open-summer-institutes-2013>.

UCDMP Open Summer Institute: Modeling in the Middle Grades

June 24-28, 2013
8:30 a.m. – 3:30 p.m.

Location: American Canyon High School; American Canyon, Calif.

Open to teachers in grades 4-8. Register at <http://education.ucdavis.edu/event/ucdmp-open-summer-institutes-2013>.

STEM Summer Camp for Girls

June 3-28, 2013
8:30 a.m. – 2:00 p.m.

Week-long camps for students going into 5th, 6th or 7th grade running during June 2013. Various off-campus locations. All camps run 8:30 a.m. – 2:00 p.m.



Summer Fun with a Brain: Summer Camps for Students in Grades 5-8

June 10 – July 26, 2013
8:30 a.m. – 5:00 p.m.



“Ten is a Good Age...”

“Ten is a good age. Not so young not to make a significant impact in public education, but not too old to have, as Associate Dean Paul Heckman puts it, ‘hardening of the categories.’ Our tenth anniversary year was filled with celebration of the accomplishments our faculty, students, and alumni made during our first decade and a focus on the School’s vision for the future.”

-- Dean Harold G. Levine



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Hold the Date!

Fall Welcome

September 25, 2013
5:00 p.m. – 7:30 p.m.



Alumni!

Let us know what you are up to, ask us questions and give us feedback at ed-alumni@ucdavis.edu



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