

Streamline to Mastery

Professional development program
draws on shared teacher experiences

by Barbara Darling

Some experiences do truly improve with age. At least that's what returning K-12 teachers indicate. Their stories flowed freely at a Streamline to Mastery meeting which began with a roundtable of shared anecdotes.

One teacher was thrilled that the routines she had established the year before were remembered and observed by her students this year. Another was faced with restructuring the curriculum for a health class when it was discovered that many of the enrolled students had already taken the course last year. Lack of desks for some in a 37-student class, teachers who strayed from agreed-upon lesson plans during collaborative planning and issues with tech support posed additional challenges. But the group seemed undaunted.

"Being a year-four teacher just rocks—finally, it feels really good," one teacher enthused. Another said, "I really like being a fifth-year teacher. I feel I really know what I'm doing."

This open discussion is just part of an innovative professional development and research project that is the brainchild of School of Education Associate Professor Valerie Otero.

Streamline to Mastery is a teacher-led professional community in which faculty and graduate students from the School of Education collaborate with a select group of teachers. The group's meetings provide a unique opportunity for public school teachers to discuss their practice and work together to develop into educational leaders and agents of change.

The concept is that teachers know best what they need to know and, by sharing questions and ideas, can evolve

their own professional development. In Streamline to Mastery, the participants immerse themselves in the challenges they face and find solutions.

"Streamline to Mastery is a professional development program intended to draw on the expertise and experiences of the teachers. Too often, we undervalue, underestimate and underutilize the vast knowledge, experience and expertise that reside within teachers," said Otero.

"When we think about teacher professional development, we often think about how to *help* teachers change. Instead, we might begin to think about how to create teacher-led communities in which change is likely to happen. When we think about resources necessary for creating a professional development program we often think about bringing expertise and resources *to* the teachers. We might instead take the view that the resources necessary for professional development reside in the teachers and their everyday experiences," Otero said.

Mike Ross, who taught physics in Colorado high schools for five years and is now a science education doctoral student involved in Streamline to Mastery, appreciates the program's novel approach. "It's naïve for school district personnel to think one professional development goal would be appropriate for even a team, much less an entire district," he said. "That runs contrary to what we know about how students learn and the best ways to serve students. We don't all have the same trajectory so why would we think that way about teachers?"

In order to avoid the one-size-fits-all professional development approach, Streamline to Mastery teachers contribute to their own learning. This integrated vision for teacher education involves pre- and in-service



Teacher and Streamline to Mastery member Shelly Belleau works with a student during a science lab.

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Message from the Dean



"We are highly mindful of the dangers of agreeing to measure candidate effectiveness based on K-12 student test scores, whether through Value-Added Methodology or the Colorado Growth Model."

In the past, as a measurement expert concerned about the negative effects of high-stakes accountability testing, I worked with groups of teachers to reaffirm more ambitious learning goals. Guided by the slogan, "teaching with integrity in the face of high-stakes testing," we developed explicit strategies to ensure teaching to the full curricular domain (not just the tested subpart), to limit narrow practice with test formats, and to avoid worried talk with students about the test, the test, the test.

Now that university-based teacher preparation programs are under scrutiny—some might say, under attack—we in the School of Education must affirm our principles while responding to accountability pressures. How should we respond to, possibly even lead, the development of new evaluation methods but at the same time not give over to accountability metrics that narrowly define effective teacher preparation?

Under the leadership of Associate Dean for Teacher Education Jennie Whitcomb and former CU-Denver Dean Lynn Rhodes, we undertook what our national accrediting body, NCATE, calls a "transformative initiative" to shift fundamentally the focus of our accreditation review. NCATE accepted our proposal as did Colorado's CDE and DHE. Consistent with the move from evaluation of inputs to evaluation of outcomes in many other social

sectors, we argued that teacher preparation programs should be evaluated based on the knowledge, skills and professional commitments of our teacher candidates rather than on the details of course syllabi. In particular, we have agreed to develop data systems and be accountable for our licensure candidates' knowledge of content and content pedagogy, performance in the classroom, impact on K-12 student learning, professional dispositions and persistence in the field.

In addition, our goal is to establish greater congruence between program evaluation tools and individual candidate assessment for both formative and summative purposes. To this end, we are piloting the Teacher Performance Assessment (TPA)—an assessment resembling National Board assessments and developed out of California's licensure requirement (the PACT). Because it has been standardized enough to enable reliable scoring, the TPA can be used as a credible outcome measure. We also find that its emphasis on the development of academic language for English language learners is consistent with our program goals and the needs of Colorado. In addition, the TPA's use of video clips to evaluate classroom teaching will be introduced earlier in our program as a powerful means for candidate feedback.

We are highly mindful of the dangers of agreeing

to measure candidate effectiveness based on K-12 student test scores, whether through Value-Added Methodology or the Colorado Growth Model. But we know that these new statistical methodologies are more reliable when used, in the aggregate, to judge programs than when used to judge individual teachers. Therefore teacher education programs are the appropriate place to pilot these methods so that we can test the seriousness of various problems, such as year-to-year unreliability and remaining differences in teachers' scores caused by family and neighborhood socioeconomic status, disproportionate numbers of special education students and so forth.

These are challenging times. It is an example of specious reasoning to blame colleges of education for the poor performance of U.S. schools in international comparisons rather than the significant re-segregation of schools that has occurred in the last 30 years and the multiple impacts of poverty on families and neighborhoods. While it is unlikely that we will persuade our staunchest critics, I believe that we have a responsibility to provide good data about the quality of our programs for our supporters, for policymakers interested in evidence and for our own improvement. ■

*Lorrie Shepard, Dean and Distinguished Professor
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teachers, students and professors—every piece of the teacher pipeline.

Initially, four area science teachers were invited to participate in the inaugural Streamline to Mastery cohort in the spring of 2010, with doctoral candidates Ben Van Dusen and Ross and faculty lead Otero serving as facilitators, and undergraduate student Sam Sherman aiding in data collection. A second cohort that began this summer involves five more teachers. The Streamline to Mastery group meets every two weeks for three hours in a peer-oriented environment, rather than in an academic-teacher configuration.

Ross noted that Streamline to Mastery offers a unique arena in which the teachers can be quite open with what's happening in their classrooms. "They don't have another venue where they can walk in and say, 'I taught this lesson and it was a disaster.' Here, they can share their challenges, explore solutions and learn ways to grow in

various teaching areas."

For Ross, one of the biggest rewards of Streamline to Mastery is the opportunity to work directly with extremely talented and highly qualified teachers. The experience has expanded his awareness regarding the dilemmas new teachers face. "It strikes me that, given these teachers' résumés, they face so many incredible challenges in their practices. If these teachers are struggling to meet their students' needs and feel a sense of efficacy, then we really need to think hard about the way that we prepare and support our teachers. It's time that policymakers stop talking only about holding teachers accountable and start thinking and acting on how best to support young teachers like these who choose to work in some of the most challenging settings. If we fail to do this, we'll continue to see our most dedicated and passionate teachers either leave the profession or leave the schools that need them the most."

Shelly Belleau is one of the initial four teachers

in the program. A chemistry and physics teacher at Mapleton Expeditionary School of the Arts in Thornton, Colo., she earned her degree in biochemistry at the University of Colorado Boulder and became a Noyce Fellow. She was invited to participate in Streamline to Mastery by Otero.

"The biggest need for teachers was to have a place to authentically and vulnerably share what is happening in our classrooms so we could improve our teaching practice," she said.

The results have exceeded expectations. "Oh, my gosh, the discussions are so rich that we don't want to leave!" Belleau enthused. "It's the one place I want to be if I have to have a meeting after school. I leave feeling empowered and uplifted and really ready to conquer my classroom and conquer the challenges."

During the regular meetings, which the teachers run, "chat and chew" is conducted for the first half hour and is devoted to sharing what is going on in

WISE tackles faculty proposals

Since their inaugural meeting in 2009, Women Investing in the School of Education (WISE) members have taken their role as stewards of the grant funds they contribute very seriously. At the group's meeting in late August, discussion centered on faculty proposals and how best to manage distribution of the grants. So far, \$85,000 has been awarded to faculty and \$36,309 was awarded for fall of 2011. Awards ranged from \$5,000 to \$8,000 each.

Awards were made to these faculty and their projects:

- Julie Andrew and Kim Bunning, CU Teach Math and Science Professional Collaborative Project, \$8,000
- Lorenzo Aragon, BUENO-College Assistance Migrant Project, \$4,309
- Vicki Hand, Case Studies of Equitable Mathematics Instruction, \$8,000
- Ben Kirshner, Student Voice and Access to College, \$8,000
- William McGinley, Public Narrative: Stories of Service and Leadership, \$8,000

WISE membership has grown from 18 to 38, with the women hailing from Colorado and several other states. To join WISE,



During the annual WISE Tea, members and guests reviewed materials and listened to a presentation by School of Education Associate Professor William McGinley and Casey Middle School (Boulder) teacher Joyce Pierpont. The educators discussed the Eco Portraits Project that involved Casey students who investigated the relationships between people and nature through four elements: earth, fire, wind and water. A 2010 WISE grant helped fund the project.

members pledge a total of \$3,000, providing \$1,000 per year for three consecutive years. As a group, members review School of Education faculty proposals that support instruction, research and/or outreach. Faculty submit written proposals and also give in-person presentations to the WISE members, who then vote to fund their top-rated projects.

For information about joining WISE, please call Margot Neufeld, Senior Director of Development, 303-492-2990. ■

Creating Futures update

Off to a robust start with approximately \$1 billion raised

The four-campus University of Colorado *Creating Futures* campaign is off to a robust start, with approximately \$1 billion raised as of Sept. 1. *Creating Futures* is an intensified fundraising effort with an overall goal of generating \$1.5 billion in gifts to benefit the students, faculty and programs of CU. The campaign was in a quiet (nonpublic) phase that began in 2006 until its public phase was announced in April 2011.

The School of Education has determined several high priorities for the school, among them are:

- CU Teach—If the School of Education raises \$1,000,000, the National Math and Science Initiative will also give us \$1,000,000, creating an endowment to fund this math and science teacher preparation effort in perpetuity
- Endowed faculty chairs
- Endowed graduate student fellowships

To make campaign contributions, please contact Margot Neufeld, Senior Director of Development, margot.neufeld@cufund.org. ■

their classrooms. Following the open discussion, the group moves to its formal agenda, which is typically set by the teachers.

The original participants focused on inquiry-based science instruction. A different teacher shared a favorite lesson at every meeting, followed by a debrief in which they discussed what was inquiry based, and what was not, and how the lesson could be improved. In inquiry-based instruction, the teacher is not the giver of the knowledge, Belleau explained. The teacher acts instead as a facilitator and provides a meaningful sequence of questions and lab activities to help students build their own understanding of the science topics.

Belleau said the Streamline to Mastery environment provides a safe place to work through science lessons and to dive deeper into the rationale behind lab questions and other assignments. Sometimes, the teachers bring in students' work to review.

"One of the huge benefits of Streamline to Mastery is that it is so uplifting that it keeps me optimistic," said Belleau. "I believe my kids can do science, even after a bad day. I feel like a good teacher and Streamline helps me see I'm working toward what works best for kids." ■



Discussions that open the first part of meetings are very revealing of what teachers experience in the classroom.

Susan Marine: honoring her years of service

When Susan Marine joined the School of Education's Development Advisory Board 13 years ago, "there wasn't a game plan (for development), so we started from scratch—we didn't even have a list of alumni," she recalls. At that time, Lorrie Shepard was the acting dean and recruited Marine, understanding that there was a need to start the process.

Marine, who had been on the Boulder Valley School Board for 10 years, shared Shepard's keen commitment to public education and knew Shepard from talks the researcher had given to the school board. Marine joined the Development Advisory Board as an executive committee member, as did Bob Charles, who remains an executive committee board member, and Gerald Caplan, who has since retired from the board. Fifteen others rounded out the original board.

This spring, Marine tendered her resignation, but she will remain active in her support of the School of Education through her membership in Women Investing in the School of Education (WISE).

"Susan has been a lifelong advocate for education. From her many years on the Boulder Valley School

Board to her many years on our board, she was always concerned about what was best for the students. Are we doing what is best for the students, is it relevant, is there more that we can do? I can't imagine a more dedicated supporter for education," noted Charles. "The Boulder area community and the University of Colorado are indebted to Susan for her unrelenting support and interest in education."

In looking back at the board's accomplishments, Marine is most proud that they "supported the creation of a viable development strategy—that involved developing it from the beginning" and that the board continues to evolve the strategy. In addition, the school now has its own staff working to implement this strategy.

Funding, she emphasizes, is the most vital issue the board faces for the school, "because funding is so related to maintaining quality and remaining competitive." She considers the "substantial increase" in the number of scholarships for undergraduate students as a key sign of the board's success. In the board's first year, the School of Education awarded five scholarships totaling \$2,500. Last year it awarded 69 scholarships with a total value of \$326,500. It is

because the board has come so far from its novice beginnings that Marine felt it was okay for her to step back from participating on the DAB.

"It is hard to let Susan go, but I know that she and her husband Bill also devote tremendous energy to public health, suicide prevention and world peace," Dean Shepard said. "From the very start, her recognition of the strengths of our faculty and students and her steadfast confidence that we could launch a successful fundraising effort have been enormously important to the school and to me personally. We are so very grateful for all that Susan does for education."

The board currently has 13 members. This year's scholarships were awarded at the School of Education's annual Scholarship Dinner Oct. 14. ■



The board celebrated Marine's years of service with a special cake, her favorite: chocolate with lemon icing.



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— 5th-grade student in Literacy Squared study

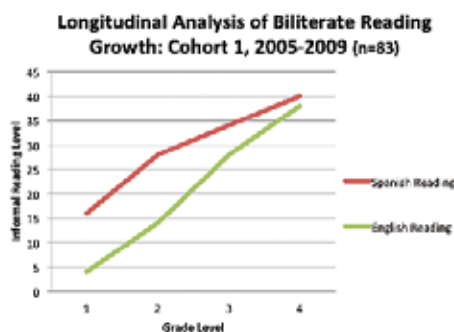
Literacy Squared®

Rethinking instruction for bilingual students

Literacy Squared® is a school-based research study that challenges practitioners to rethink how they design and deliver literacy instruction to best capitalize on students' multiple linguistic resources. Throughout the past eight years, we have worked with teachers and students in 31 schools in three states and touched the lives of more than 200 teachers and 4,000 students. We have reconceptualized biliteracy instruction through the introduction of a comprehensive biliteracy model that begins with the idea that literacies and languages develop cohesively in reciprocal and mutually supportive ways. This holistic approach to literacy and language instruction is in response to the changing demographics of today's classrooms.

Emerging bilingual children, or those students who regularly hear and speak more than one language, make up the fastest-growing segment of the K-12 public school population (Kindler, 2002). Further, nearly 80% of bilingual children in the United States speak Spanish in addition to English, and most, over 65%, were born in the United States (Capp, Fix, Murray, Ost, Passel, & Herwanto, 2005). The term emerging bilingual recognizes that two-thirds of two-language children entering today's schools in the U.S. are simultaneous bilinguals. They have been acquiring two languages, albeit in varying proportions, their entire lives. Given this, we recognized the need for fresh understandings about how best to educate the current population of bilingual children, and began to think about what education might look like if we rejected historically viable theories that assumed sequential language and literacy acquisition (e.g., one language develops before another is introduced). The result was the development and contribution of a novel theoretical lens to use to hypothesize about how biliteracy instruction might be changed to be responsive to students' realities.

The students in our study attend schools in which the majority of students are Latino, speak Spanish and English as community languages, and qualify for free and reduced priced lunch. The Literacy Squared Comprehensive Biliteracy Model was designed to accelerate their Spanish language literacy acquisition while simultaneously accelerating their English language literacy acquisition.



Students' Spanish reading scores increased at a steady pace.

In 2004, our research team hypothesized that a comprehensive biliteracy model should be founded upon the idea that Spanish language literacy and English language literacy contribute to a broader and unified conceptualization of Literacy, writ large. We also talked broadly about the literacy domains that should be developed in both language environments in complementary, but non-duplicative ways. Because our

students bring to the literacy environment a range of linguistic skills that have developed across two languages, their capacity to understand and analyze how languages work is increased. Further, what they know and can do in one language contributes to what they know and can do in the other. Sometimes, however, as young learners, they need assistance to understand how knowing two languages increases their access to curriculum.

Our pedagogical model for the development of biliteracy includes reading and writing, but not at the expense of oral language (e.g., listening and speaking) development and the explicit analysis of the similarities and differences between and within Spanish and English. In terms of oral language, our approach is distinct in that it recognizes that there is an oral register that one must acquire to successfully demonstrate language and literacy growth. Together with teachers, we analyze and target those aspects of oral language development that require explicit and direct attention to successfully master the literacy objectives. For example, if a teacher requires students to compare two texts, we begin the planning process by asking, “What language will the students need to acquire to be successful when comparing these texts?” Vocabulary and language structures are thus identified and targeted for explicit instruction. We adapted the term *oracy* to capture those aspects of oral language that must be taught so that students can be successful with the literacy objectives. Finally, we understood that language analysis, both within and across languages, was an aspect of literacy instruction that was not getting appropriate attention in bilingual programs. From these conjectures, we developed our theoretically informed pedagogy consisting of the following four components: oracy, writing, reading and metalinguistic awareness. We ask teachers to



Susan Hopewell is an Assistant Professor of Education in the division of Educational Equity and Cultural Diversity at CU-Boulder. Her research examines the strategic use of Spanish during ESL literacy and other biliteracy education topics. Formerly, she was a Professional Research Assistant with the BUENO Center for Multicultural Education. She spent 8 years as a classroom teacher in a dual-language elementary school and 4 years as the literacy coach in a maintenance bilingual program. She earned her PhD at CU-Boulder.

by Susan Hopewell
Sandra Butvilofsky
Kathy Escamilla
Manuel Escamilla
Olivia Ruiz-Figueroa
Lucinda Soltero-González
Wendy Sparrow

EYE ON RESEARCH CONTINUED FROM PAGE 5

attend to each of these in equal proportions in each language throughout the literacy block.

In its original conceptualization, Literacy Squared was to be a three-year, first- through third-grade longitudinal study about literacy and language acquisition for Spanish/English bilingual children in Texas and Colorado. As we collected data, we were excited to see that teaching literacy in Spanish and English simultaneously (i.e., paired literacy) resulted in students making steady gains in both languages in reading and writing. As can be seen in the line graph on page 5, students' Spanish reading scores, as measured by the Evaluación del desarrollo de la lectura Segunda Edición® (EDL2), increased at a steady pace and, on average, approached grade-level benchmarks. Meanwhile, the cumulative effects of beginning English language literacy sooner, and linking it very deliberately to Spanish literacy instruction, resulted in fourth-grade English reading scores that were only slightly lower than grade level average in Spanish.

Upon seeing this potential, we expanded the study to a five-year, first- through fifth-grade examination of the longitudinal effects of the implementation of our biliteracy model designed to accelerate the literacy development of Spanish/English bilingual students in both Spanish and English. Findings indicated that attending to both Spanish literacy and English literacy simultaneously beginning in first grade resulted in positive literacy gains in both languages in reading and writing. Students who were better readers and writers in Spanish tended to be better readers and writers in English, and literacy instruction in two languages was

in no way confusing or detrimental to students' biliterate development. Explicit attention to the reciprocal relationship of the two languages advanced students' literacy skills in both Spanish and English.

With the completion of Phase I, our team agreed to design and implement a second three-year phase that included the refinement and replication of the original study, as well as an in-depth, case-study approach to explore the potential of the model at a school-wide level. Phase II is being implemented from 2009 through 2012 in 13 schools in Oregon and three schools in Colorado. The 13 Oregon schools are implementing the modified replication, while the three Colorado schools serve as case studies to test the model on a larger, school-wide scale. Further, all now include paired literacy instruction beginning in kindergarten. All sites agree to the following four foundational components:

1. Three-year commitment to collect data for the research
2. Participation in all professional development for leadership and teachers
3. Assessment of all students in two languages
4. Implementation of a comprehensive biliteracy model with three mandatory instructional components with a focus on productive and receptive language skills in grades K-5
 - Spanish literacy
 - Explicit connections between Spanish and English
 - Literacy-based ESL

Thus far, we continue to be inspired by the positive results we see in the student-level data we collect. Not only do student test results in reading and writing in Spanish and English continue to improve, but we have anecdotal evidence that teachers and administrators appreciate that the paradigmatic shifts that we propose as part of our frameworks, both in terms of philosophical orientation and in pedagogical approach to biliteracy instruction, have yielded positive and sustainable results in terms of student achievement. As one Oregon teacher said, "With Literacy Squared, we have the ability to keep everything connected and related, and it's very powerful" (J. Boyden, Salem-Keizer Public School, Oregon). This is not to say that it has been easy or that it did not at times meet with resistance. Over time, however, the results speak for themselves. The students in our study are becoming biliterate better than they were previously, and teachers in the study express that what they have learned and how they implement and coordinate instruction across language environments is beneficial.

As our model is refined and shared via numerous conference presentations, journal articles, doctoral dissertations and book chapters, we find that we receive regular requests for information and professional development. The interest is so great that we are currently exploring the possibility of offering a Literacy Squared Professional Development Summer Institute in 2012. Stay tuned, and visit www.LiteracySquared.org for additional information. ■



Sandra Butvilofsky received her doctorate at and is a Professional Research Assistant at CU-Boulder. Her research includes a qualitative-based approach to Spanish and English writing development of bilingual Latino elementary children. She taught for 5 years as a bilingual classroom teacher and 5 years as a Descubriendo la Lectura Teacher in Denver.



Manuel Escamilla directs the BUENO Equity Assistance Center for Region VII at CU-Boulder. He earned his PhD in early childhood education from the University of Kansas and has been a Professor of Bilingual Education in California and Arizona. He served as the Assistant VP of Student Affairs at the University of Arizona and at Metropolitan State College of Denver.



Lucinda Soltero-González is an Assistant Professor at CU-Boulder. She was an elementary school teacher and a bilingual special education teacher for several years before earning her PhD from the University of Arizona. Her research interests include the development of bilingualism and early biliteracy in young Spanish-speaking children.



Kathy Escamilla, PhD, is a Professor of Education whose research centers on educational issues related to Spanish-speaking language minority students in U.S. schools. She is specifically interested in the development of bilingualism and biliteracy in early elementary grades. Her research also examines assessment practices and the impact of high-stakes testing on these children.



Olivia Ruiz-Figueroa worked with the Tucson Unified School District for 27 years as a bilingual classroom teacher, project specialist and reading teacher. She was trained as a Reading Recovery Teacher Leader at Texas Women's University. She trained teachers nationally in the implementation of the Descubriendo La Lectura Project and El Instrumento de Observación.



Wendy Sparrow is a Professional Research Associate at the BUENO Center for Multicultural Education at CU-Boulder. Her research interests include the bilingual literacy development of Latino elementary school children and the fidelity of program implementation in bilingual and dual-language programs and interventions. She earned her PhD at CU-Boulder.

Education minor offers options for students

Undergrads can explore various teaching settings

For CU students who are on the fence about whether or not to commit to the School of Education's teacher licensure program, there is a new, viable alternative. Students may now enroll in the school's education minor launched this fall.

"We are aware that there are students who are not ready to commit themselves to our teacher licensure program, but who may be interested in a variety of settings outside of the K-12 classroom," said Professor Dan Liston, who co-directs the education minor program with Professor Rubén Donato. "There is a rich opportunity to offer existing and new education courses from our talented faculty that opens the range of courses available to undergraduate students. This might also provide an avenue for some to discover they are interested in teaching and want to enroll in the teacher licensure program or stick with the wonderful minor."

The learning goals for the minor include introducing students to the complex interactions

among political, cultural, social and historical dynamics of educational policy and practice, as well as developing a deep understanding of learning in both formal and informal settings. After completing the requirements for the minor, students will be equipped with a repertoire of practices to teach in a variety of educational settings, such as the Peace Corps, after-school programs and youth-art centers.

The minor offers two tracks: teaching and learning, and foundations and policy. The teaching and learning track emphasizes educational opportunities in schools and informal community settings. The foundations and policy track looks at policy orientation and social foundations in education. For 19 total credit hours, students can partake of a rich set of courses, including "Education in Film (EDUC 2150)," "Knowledge & Learning in Math & Science (EDUC 4050)," "Renewing Democracy in Communities and Schools (EDUC 4800)" and "International Comparative Education (4015)." In



Dan Liston, left, and Rubén Donato are co-directors of the new education minor.

the future, the minor may include classes in story and memoir, technology in education and teaching English as a second language.

"We hope the minor will open up major avenues for undergraduates to explore teaching and learning in the U.S. and beyond," said Liston. For further information, contact: Dan.Liston@colorado.edu, 303-492-8934, or Ruben.Donato@colorado.edu, 303-492-7946. ■

Film course analyzes teaching perspectives

One of the courses offered in the new education minor curriculum is "Education in Film (EDUC 2150)." Designed by Associate Professor Elizabeth Dutro and taught in 2010 as a 4000-level class, the course examines teaching, learning and schooling through perspectives offered in fictional and documentary film, scholarly analyses and student and teacher narratives. Starting this fall (2011), it is being offered each semester as a 2000-level course and Dutro and Professor Dan Liston will teach the course in alternating semesters.

The course illuminates key questions, including how do films represent the educational experiences of various students in a variety of school and community contexts, what does it mean to be educated, what does it mean to teach well, how do we learn, and do schools as organizational structures support teaching and learning for all students?

"'Education in Film' is a wonderful opportunity to examine the larger cultural and scholarly understandings of teaching and learning. It allows us to look at a variety of films and the various lenses through which to view them," Liston said.

Dutro added, "This course provides a space for us to use analytic tools to consider how popular cultural texts imagine teachers and students in schools and communities, compare and contrast our own educational experiences to those portrayals, and, thus, surface and critique our own and the larger culture's assumptions about what it means to be a teacher or a learner in various school contexts."

Among the films studied that focus on teaching and the portrayal of teachers are "Freedom Writers," "Stand and Deliver," "Dead Poets Society," "School of Rock" and "Mr. Holland's Opus." Through films such as "Half Nelson," "Precious" and "Dangerous Minds," the course also delves into the representations of students in film. Films considered in the area of learning include "The History Boys," "Mad Hot Ballroom" and "Kings of Pastry." "Waiting for Superman" and "High School II" are studied as examples of schools as organizations. A crucial thread running through the course is an examination of the role of race, class, gender and sexual orientation in films' representations of teachers, students and schools in relation to research on equity, access and opportunity for children and youth in K-12 schools. ■



Elizabeth Dutro





Professor Janette Klingner explains her Collaborative Strategic Reading strategies at a recent meeting of the School of Education's Development Advisory Board in the Flatirons Room in the campus' new Center for Community.

LEARNING & TEACHING

Teachers learn new techniques through i3

by Janette Klingner and Alison Boardman

Editor's Note: Professor Janette Klingner, through the School of Education's BUENO Center, is partnered with the Denver Public Schools and Padres Unidos for an innovative project known as Collaborative Strategic Reading Colorado (CSR-CO). It has been a year since the U.S. Department of Education announced that CU-Boulder had been awarded \$4,248,610 in funding. The grant is funded through the American Recovery and Reinvestment Act passed by Congress in 2009 and is known as i3, which stands for Investing In Innovation. The program delivers extensive professional development to middle school content teachers, helping them learn how to implement the learning tools used in CSR.



The Collaborative Strategic Reading program provides teachers with many useful tools, including various cue cards.

Our CSR-CO i3 grant with Denver Public Schools (DPS) is completing its first full year. We have already accomplished a great deal. During the 2010–2011 school year, we taught CSR to all of the 6th-, 7th-, and 8th-grade science and social studies teachers at Merrill Middle School and Martin Luther King, Jr. (MLK) Early College. Teachers implemented CSR in randomly selected classes at least once a week and continued using typical instruction in their other classes. Our CU research team provided teachers with two days of upfront professional development as well as ongoing in-class support and periodic after-school booster sessions. In-class support included model lessons, co-teaching, observations with feedback and assistance with materials. We also worked with teacher leaders in science and social studies at the two schools, who in turn provided teachers with more support.

During the summer of 2011, we worked with DPS curriculum coordinators and teachers to develop additional materials to support CSR lessons. These materials include guidelines for working with English language learners, for selecting appropriate text and for determining which vocabulary words in a reading to pre-teach. We developed mini-lessons to facilitate teachers' introduction of CSR in their classrooms, and also model lessons using readings drawn from the DPS curricula in language arts, social studies and science at each grade level. We also provided several professional development sessions for teachers new to CSR at Merrill and MLK, teachers at our schools new to CSR in the 2011–2012 school-year and teachers participating in the DPS Summer ELA Academy.

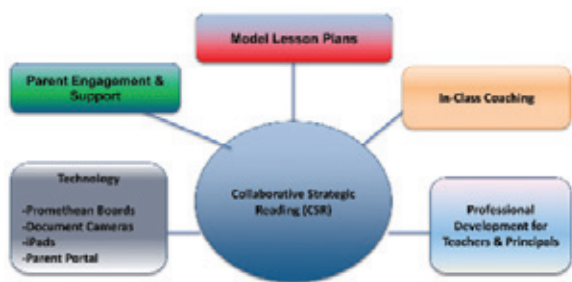
Now that we are beginning the 2011–2012 school year, Merrill and MLK have moved into their School-Wide Implementation phase of the project. All teachers and administrators have learned CSR. Social studies, science and language arts teachers are implementing CSR at least once a week in their classes, and other teachers in the school are supporting implementation by using CSR when appropriate (as in math) and incorporating components of CSR into their instruction. We are collaborating closely with our DPS colleagues to provide teachers with support and also working with our partners from Padres Unidos to enhance parent engagement. As part of the move to school-wide implementation, we have begun the work of systematizing and aligning our professional development, coaching and support procedures so they can be taken to scale. For example, we have provided DPS TECs (teacher effectiveness coaches) and teacher leaders with additional professional development focused on how to support high-quality CSR implementation in classrooms and how to organize schools' structures to sustain these practices. This year, professional development and booster sessions will be provided by the CU team in collaboration with DPS staff and school teacher leaders. We are also developing online PD modules that can be disseminated broadly. ■

i3 CSR-CO Initiative: 5-YEAR TIMELINE

Year	EDY	SWI	Implementation
2010	EDY	SWI	Implementation
2011	EDY	SWI	Implementation
2012	EDY	SWI	Implementation
2013	EDY	SWI	Implementation
2014	EDY	SWI	Implementation
2015	EDY	SWI	Implementation
2016	EDY	SWI	Implementation
2017	EDY	SWI	Implementation
2018	EDY	SWI	Implementation
2019	EDY	SWI	Implementation
2020	EDY	SWI	Implementation

EDY – Experimental Design Year; SWI = School-Wide Implementation

i3 CSR-CO Initiative: SCHOOL SUPPORT



CSR – Collaborative Strategic Reading



Step 1 students (from left) Rachael McNeely, Taylor DeHerrera and Alexis Bailey gather supplies for FOSS kits.

School of Education Step 1 students need never fear teaching a science lab, thanks to Full Option Science System (FOSS) kits. These kits are like hope chests in that they contain everything one would need for a science experiment. The School of Education keeps the requisite supplies and the students load up the kits depending upon the required materials. If an experiment called for vials, graduated cylinders, balances, reaction vessels, cups, measuring spoons, rock samples, magnifying glasses, circuit boards,

thermometers and syringes, the students simply load the kits with the supplies, as well as the student handouts and teacher resources. This semester, students are using FOSS kits in 13 different elementary schools in Boulder Valley, Adams 12, Jeffco and St. Vrain School Districts.

"The FOSS curriculum fits very well into the inquiry-style teaching that we are asking our students to do in classrooms," said Julie Andrew, Master Teacher in the CU Teach program. ■

Our new faculty

views education



Kim Bunning joins the School of Education as a Master Teacher in the CU Teach program. She brings her experience as an engineer, classroom teacher, teacher educator and researcher to her new role. She began her teaching career in 1990 at the University of Wyoming as an Undergraduate Teaching Assistant in the Mathematics Department and has taught mathematics for nearly 20 years in various settings, ranging from kindergarten through college-level calculus. Most recently she co-directed the Mathematical Thinking for Instruction project in Idaho where she designed and facilitated professional development,

mentored both novice and veteran teachers and developed mathematics instructional coaching practices. Her areas of interest include mathematics teacher preparation, professional development and developing teaching practices for culturally diverse settings.

Kim earned her PhD in curriculum and instruction from CU-Boulder in 2007 and her BS degree in mathematics from the University of Wyoming in 1992. She earned her professional teacher licensure while teaching in Englewood Public Schools in 2000.



Gene V Glass is a Research Professor in the School of Education and a Senior Researcher at the National Education Policy Center. Trained originally in statistics, his interests broadened to include psychotherapy research, evaluation methodology and policy analysis. He was twice (1968, 1970) honored with the Palmer O. Johnson award of the American Educational Research Association; and in 1984, he received the Paul Lazarsfeld Award of the American Evaluation Association. He is a past-president of the American Educational Research Association (1975–76) and a recipient of the Cattell Award of the Society of Multivariate Experimental Psychology.

His work on meta-analysis of psychotherapy outcomes (with

M.L. Smith) was named as one of the Forty Studies that Changed Psychology in the book of the same name by Roger R. Hock (1999). In 1993, he created one of the first online, peer-reviewed scholarly journals in education, the *Education Policy Analysis Archives*. In 1998, he created the open access scholarly journal *Education Review*, which he continues to edit. He is an elected member of the National Academy of Education. In 2006, he was honored with the Distinguished Contributions to Educational Research Award of the American Educational Research Association. He earned his MS and PhD in educational psychology from the University of Wisconsin and a BA from the University of Nebraska, Lincoln.



John J. Hoover is an Associate Research Professor of Education specializing in multicultural special education. He is a former K-12 teacher and supervisor in special education having worked in several states and on American Indian reservations in the Midwest, West and Southwest. Previously, he was Associate Professor (special education) at the University of Texas, Tyler, and director of research and evaluation for the national nonprofit organization, the American Indian Science and Engineering Society (AISES).

Hoover has authored or co-authored more than 60 publications that include one norm-referenced early reading test, over a dozen books and numerous peer-reviewed journal articles. He has secured over \$10 million of federal, corporate and foundation funding over the

past 20 years. His current research and writing examine assessment practices and response to intervention at the intersection of multicultural and special education. He is specifically interested in effective strategies for distinguishing learning differences from disabilities to reduce unnecessary special education referrals of diverse learners. Hoover is active in the special education professional community within which he regularly makes presentations and reviews manuscripts for *Teaching Exceptional Children* and *Remedial and Special Education*. He earned his PhD in curriculum, administration and supervision from CU-Boulder, his MA in learning disabilities and emotional disorders from Northern Arizona University and his BA from Illinois State University.



Susan Hopewell is an Assistant Professor of Education in the division of Educational Equity and Cultural Diversity. She is interested in issues of language, culture, equity and identity, especially as they impact—or are affected by—literacy practices. Hopewell utilizes mixed-methods designs to conduct research focused on strengthening biliteracy education for Spanish-English bilingual children in the United States. Her research examines the strategic use of Spanish during ESL literacy, the impact that teacher-student interactions have on bilingual writing development, and a longitudinal K-5 biliteracy study aiming to reconceptualize how we assess, interpret and understand the development of biliteracy. Prior to joining the faculty, she was a

Professional Research Assistant with the BUENO Center for Multicultural Education where she directed federal teacher preparation grants and served as assistant editor of the *Bilingual Research Journal*. She has eight years' teaching experience in a dual-language elementary school and four years' experience as the literacy coach in a maintenance bilingual program.

Hopewell serves as secretary for the Colorado Association for Bilingual Education and is a member of numerous professional organizations, including the National Association for Bilingual Education and the American Educational Research Association. She earned her BA and PhD from CU-Boulder and an MA from the University of Virginia.



Bill Penuel is a Professor in Educational Psychology and Learning Sciences. His research focuses on teacher learning and organizational processes that shape the implementation of educational policies, school curricula and after-school programs. He examines learning and development from sociocultural, social capital and complex social systems perspectives. One strand of his research focuses on designs for teacher professional development in Earth science education. A second strand examines the role of research-practice partnerships in designing supports for teacher learning in school districts. A third strand examines how children's interest in science develops over time and across different kinds of settings, which includes a focus on young children's learning

through digital media, including public television programs.

His research has appeared in the *American Educational Research Journal*, *Teachers College Record*, *American Journal of Evaluation*, *Science Education* and the *Journal of the Learning Sciences*. He is associate editor of the Social and Institutional Analysis section at the *American Educational Research Journal*, and on the editorial board for *Teachers College Record*, *American Journal of Evaluation* and *Cognition and Instruction*. Penuel earned his BA in psychology from Clark University, his EdM from the Graduate School of Education at Harvard University and his PhD in developmental psychology at Clark University. ■



Literacy classes benefit from Norlin Library's Special Collections

Literacy faculty utilized the resources at CU-Boulder's Norlin Library for two classes recently. Professor Shelby Wolf offered students unique experiences in the arts during her "Children Learning Through the Arts (EDUC 6804-602)" class. During one class session, students visited Norlin's Special Collections where librarians Alison Graber and Deborah Hollis explained various categories of books. Students took photos and later designed their own journals based on their experiences in the class. A page from student Kim Harbert's journal (above) commemorates her exploration of CU's Heritage Center in Old Main, which the students also visited.

In another class, "Integrated Reading and Writing (EDUC 4321)" taught by faculty member Donna Begley, students were introduced to literature through the ages through a display in Norlin Library's Special Collections. Students examined early literary stereotypes, seeing how prejudice and racism were portrayed. Students also participated in hands-on instruction led by Alison Graber in the use of e-books, databases and other online technologies available through Norlin Library. ■

Mega Reunion

About 100 guests, including alumni, faculty, students, donors and friends of the School of



Education, gathered May 6 for the school's first Mega Reunion. The event honored four emeritus faculty as well as two faculty members who are retiring. The reunion was held in the gorgeous Club Level at Folsom Stadium to celebrate seeing former classmates and faculty and to meet others with a school affiliation. School of Education Dean Lorrie Shepard hosted the event. Honorees were Chancellor Philip DiStefano; Emeritus Faculty Ron Anderson, Gene Glass and Ken Hopkins; Emerita Faculty Roberta Flexer; and retiring faculty members Phil Langer and Margaret (Marki) LeCompte. ■

3rd Annual Summer Institute for Scalable Game Design

Attendees at the third annual Summer Institute for Scalable Game Design at CU-Boulder included teachers and college students from Colorado, Wyoming, Texas, Alaska, Georgia, Mississippi, Ohio and South Dakota. Participants were immersed in a variety of courses and experiences to learn to use software programs such as AgentSheets and its scalable game design for classes in K-12 computer education, math, science and other content areas. Games used in the training included Frogger, Sokoban, Pac-Man and Space Invaders and simulations included Forest Fire and Contagion.

According to School of Education Assistant Professor and Scalable Game Design co-principal investigator David Webb, "Designing games and simulations requires sustained engagement, problem solving and the application of computational thinking, similar reasoning skills that we want to promote in math and science education." ■



At age 34, Andrew Wolff is making previously unreachable dreams become reality for hundreds of at-risk Cambodian children.

This might seem a stretch for a former businessman who began his second career as a teacher after earning his MA in ESL and Multicultural Education at CU-Boulder in 2006. However, after teaching for a year at an area charter school, Wolff felt constrained by the educational system. Always the

adventurer, he bought a one-way ticket to Bangkok, Thailand, hoping to volunteer as a teacher somewhere in southeast Asia.

While traveling in Cambodia, he met like-minded Jenny Ciucci, and they co-founded Children's Future International (CFI), located in Sous Ey in northwest Cambodia. CFI provides a haven for impoverished and

marginalized children whose families still reel from the rampant genocide of the 1975–1979 Khmer Rouge regime. During that time, intellectuals were particularly persecuted. As one result, the area's educational system sorely lacks qualified teachers for Cambodia's younger generation.

"I didn't expect to ultimately commit my life to an organization in Cambodia," admits Wolff. "But I wanted to serve children in some teaching capacity because it's what I enjoy and am really good at." Thanks to CFI's multiple well-being programs, 200-plus children now receive basic education in Khmer literacy, English, math, computer skills, music, art, sports and critical thinking. In addition to its three-room Learning Center, CFI also funds and operates a safehouse that currently houses six young women and a children's home for 16 boys and girls. CFI is a U.S.-based 501 (c) 3 non-profit. Information: <http://www.childrensfutureinternational.org>. ■



Andrew Wolff teaching his Cambodian students.

(Photo top right) The Festival of Books - El Festival de los libros de la biblioteca book for the day of the dead, by Luis San Vicente. El Paso, Tex.: Cinco Puntos Press, ©2002

education *views*

KUDOS Current news of faculty, students and alumni

FACULTY

Kanesha Baynard and her husband Tahllee were featured in the alumni profiles in the Cornell *eReport*.

Derek Briggs, Maria Araceli Ruiz-Primo, Heidi Iverson, Robert Talbot, and **Lorrie A. Shepard** authored "Impact of Undergraduate Science Course Innovations on Learning" in *Science* magazine, Vol. 331, March 2011 issue.

Kris Gutiérrez and Gerhard Fischer co-hosted a symposium on "Exploring Fundamental Transformations of Learning and Discovery in Cultures of Participation" in late August.

Ken Howe is the new editor of the American Educational Research Journal, *Social and Institutional Analysis*.

Ben Kirshner's research was highlighted in an article in *The American Independent*.

Philip Langer, who taught in the School of Education for nearly 40 years, retired in the spring and was granted Emeritus Faculty status.

Margaret (Marki) LeCompte retired in the spring from the School of Education faculty after 21 years of teaching and was granted Emerita Faculty status.

Daniel Liston was awarded the Robert L. Stearns Award by the University of Colorado Alumni Association. The award recognizes members of the faculty and staff for extraordinary achievement or service in any one or combination of the following areas: teaching, service to the University, work with students, research or off-campus service.

Michele Moses received the 2011 Outstanding Faculty Graduate Advising Award and was named an associate editor for the American Educational Research Journal, *Social and Institutional Analysis*. She also received the Provost's Faculty Achievement Award at the Fall Convocation Awards ceremony Sept. 30. The Provost's Faculty Achievement Awards are presented annually to selected faculty who have offered recent significant publication or creative contributions in their academic fields.

Kevin O'Connor co-edited a special issue of *Anthropology & Education Quarterly* (2011, Vol. 42, issue 2), entitled "Power and Positioning in Purposeful Community Change" and co-authored the article, "Doing 'Business as Usual': Dynamics of Voice in Community Organizing Talk."

Bill Penuel and **Kevin O'Connor** traveled to Rome, Italy, in September for the International Society for Cultural and Activity Research's Congress (conference). The Congress brought together scholars from around the world who engage in research on human development and learning in both school and workplace settings from sociocultural perspectives.

At the Congress, Penuel delivered a paper and served as discussant on a series of papers on the topic of identity and learning. O'Connor served as a discussant for a set of papers on the topic of how young people on the margins of Scandinavian societies learn.

Kevin Welner announced the October launch of the Initiative on Diversity, Equity and Learning (IDEAL), funded by a \$1 million grant from the Ford Foundation. IDEAL will bring "high-quality research into policy discussion," Welner said of the initiative that promotes school diversity and school achievement. The *Daily Camera* featured the announcement in its Local coverage Oct. 2.

Jennie Whitcomb attended the American Association of Colleges of Teacher Education 2011 annual meeting in San Diego. She moderated a major forum, "Linking P-12 Longitudinal Data and Educator Preparation: From Accountability to Program Improvement."

Kent Willmann helped organize an outreach program, Doing Democracy Day, which was featured in the *Longmont Times-Call*.

STUDENTS

Alaina Feltenberger, a doctoral student in Literacy Curriculum and Instruction, was published in *Praxis: A Writing Center Journal* and the National Writing Project republished an earlier article of hers.

Rachel (Prosser) Kachchaf, a doctoral candidate in Educational Equity and Cultural Diversity, has accepted a research position at the Technical Education Research Collaborative, a non-profit educational research institute that focuses on mathematics and science education.

Bethy Leonardi, Educational Foundations, Policy, and Practice doctoral student, received the United Government of Graduate Students' Graduate Part-Time Instructors Award.

Chad Nash, an Educational Foundations, Policy, and Practice doctoral student, was selected for a State Higher Education Executive Officers (SHEEO) Summer Research Fellowship.

Julia Ratcliff, a senior in applied mathematics with an emphasis in secondary education, was offered a Knowles Teaching Fellowship by the Knowles Science Teaching Foundation. <http://www.kstf.org/fellowships/teaching/scope.html>.

ALUMNI

Dorothy Aguilera-Black Bear (PhD '03) accepted a position as director of institutional research at the Northwest Indian College in Bellingham, Wash.

Margaret (Peg) Fraser was recently awarded tenure and promotion to full professor from Metropolitan State College of Denver. Her

degrees from CU are: BS, 1971 (elementary education); and MA, 1972 (special education); she earned her EdD, 1988 (education) from Illinois State University and an MA (educational administration) from Bradley University.

Chase Grubman is teaching in an elementary school in Rancagua, Chile, and blogging his experiences to the School of Education. Read his blogs on the homepage: <http://www.colorado.edu/education/>.

Isabel Martinez, whose MA paper at CU's School of Education examined the experiences of faculty of color in an unnamed, predominantly white research university, completed her PhD at Teachers College this spring and now is an assistant professor at John Jay College of the CUNY system.

Michael Orosco has co-published two articles, one in the *Journal of Special Education* and the other in the *Journal of Educational Psychology* and was also featured in the *Chronicle of Higher Education* and the *New York Times*.

Several alums and current students, including **Allison Sampish**, **Zachary Rupp**, **Victoria Okell** and **Ben Jackson**, are part of a group of 21 metro-area teachers involved with the Denver New Millennium Initiative who studied Senate Bill 10-191 and released a report containing recommendations on how the law should be put into effect.

Cacia Steensen graduated in the spring and was honored with the 2011 Best Should Teach Award. She had majored in ecology and evolutionary biology with a focus in secondary science education. ■

PDK announces new chapter leadership

The University of Colorado Boulder Chapter of Phi Delta Kappa International (PDK) thanks Mark Sparn and Mel Beauprez for their outstanding leadership, dedication and service to the chapter. As outgoing president and treasurer, respectively, they leave large shoes to fill. Newly elected chapter officers are:

- Co-presidents: Kent Cruger and Tammy Stewart
- Membership and university liaison: Jennie Whitcomb
- Foundation: Ginger Ramsey
- Treasurer: Sandy Ripplinger
- Newsletter: Linda Molner-Kelley

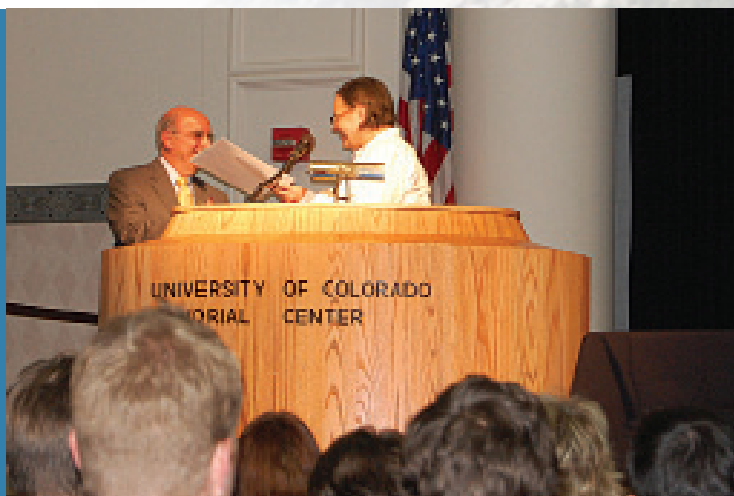
Please contact Stewart (tammy.stewart@adams12.org) or Whitcomb (jennie.whitcomb@colorado.edu) if you would like to join or renew your membership and become more involved in PDK activities. ■

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Laura Border, Director of the Graduate Teacher Program, presents Chancellor DiStefano with the Best Should Teach Awards—Gold Flame of Enlightenment pin—as a thank you for his keynote address.



Best Should Teach Awards and Lecture honors teacher excellence

Several hundred people attended the 13th Annual Best Should Teach Awards and Lecture in the Glenn Miller Ballroom in mid-August. Chancellor Philip DiStefano delivered the keynote address on “The Best Should Teach” Legacy. Two School of Education faculty, Rubén Donato and Dan Liston, received Faculty Gold Awards for their teaching excellence.

Five public school teachers received Gold Awards: Kathy Bergren, St. Vrain Valley School District; Kristin Donley, Boulder Valley School District; Jesa Griffeth, Denver Public Schools; Jennifer A. Santos, Weld County School District RE-8; and Julie Schwab, School District 27J.

Two other CU-Boulder faculty also received Faculty Gold Awards: Anne Costain, a professor of political science and Marianne Wesson, a professor of law. ■

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