



Kate Spohr <kspohr@berkeley.edu>

CEO message: CEO Updates

1 message

Kate Spohr <kspohr@berkeley.edu>

Thu, Oct 15, 2015 at 3:14 PM

Reply-To: Coalition for Education and Outreach <education.outreach@lists.berkeley.edu>

To: CEO <education.outreach@lists.berkeley.edu>

CEO Updates is a biweekly newsletter designed to inform and engage science education and outreach professionals and enthusiasts at UC Berkeley and in our surrounding communities. Membership is free and open to all. Subscribe or unsubscribe [here](#).

[Learn more about CEO-->](#)

Coming up at CEO

11/10/15 CEO monthly meeting, 12:00 to 1:30 pm. Meaningful and measureable making—Featured speaker: **Rena Dorph**, Director of the Research Group at the Lawrence Hall of Science. Many individuals, programs, and organizations have embraced the idea that “making” can spark and foster STEM engagement and learning. Making has been characterized by interest-driven engagement in creative production at the crossroads and fringes of disciplines such as science, technology, engineering, art, and math. Many advocates and researchers argue that making has emerged as an engaging entry point and activity for STEM education. Given the variability of making experiences, how do we know that making is making a difference? This talk will explore these issues and share insights about how research and evaluation in making can inform practice, leading to deeper participant engagement and better learning outcomes. Location: [303 Doe Library](#).

View the complete [CEO event and meeting schedule](#).

Upcoming

10/18/15, 10:00 am, East Bay Mini-Maker Faire, Park Day School, Oakland. The East Bay Mini Maker Faire follows the “big” Maker Faire model of celebrating invention, creativity, and resourcefulness, but is smaller in scale (170+ makers vs. 900 makers; 6,000+ people on one day vs. 65,000) and will showcase the wonders of Alameda and Contra Costa counties and beyond.

National Science Teachers Association (NSTA) area conferences - Oct 22-24, Reno, Science Literacy: Creating Connections!; Nov 12-14, Philadelphia, Revolutionary Science.

Oct 29-31, Advancing Chicanos/Hispanics & Native Americans in Science (SACNAS) National Conference, Washington DC.

11/20/15, 9am - 2pm, Community college career teaching opportunities, sponsored by Contra Costa Community College. This event is free and includes lunch. Meet faculty, department chairs and deans in many fields; hear from experienced full-time and part-faculty about community college teaching as a career; learn from human resources personnel how to navigate the application process. Location: Diablo Valley College Performing Arts Center. [Information and registration](#).

Registration is now open for the second annual **Expanding Potential Workshop**, which aims to foster inclusivity in STEM. The workshop, sponsored by [Synberc](#), will be held **Jan 30-31, 2016** at UC Berkeley. Day 1: Recognizing the Issues, will focus on helping students and professionals identify and understand the challenges and unconscious biases underrepresented groups face. Day 2: Developing the Solutions, will focus on building and highlighting programs that foster inclusive STEM workplaces. [Information and registration](#).

Funding

NSF Research Experiences for Teachers (RET) in Engineering and Computer Science. Deadline: 11/2/15. The Directorate for Engineering (ENG) and the Directorate for Computer and Information Science and Engineering (CISE), have joined to support the Research Experiences for Teachers (RET) in Engineering and Computer Science program. This program supports active long-term collaborative partnerships between K-12 science, technology, engineering, computer and information science, and mathematics (STEM) teachers and community college and university faculty and students to bring knowledge of engineering or computer and information science and engineering as well as technological innovation to pre-college/community college classrooms. The goal of these partnerships is to enable K-12 STEM teachers and community college faculty to translate their research experiences and new knowledge gained in university settings into their classroom activities.

NSF Improving Undergraduate STEM Education (IUSE: EHR)—Deadline: 11/3/15. The IUSE: EHR program invites proposals that address immediate challenges and opportunities that are facing undergraduate STEM education, as well as those that anticipate new structures (e.g. organizational changes, new methods for certification or credentialing, course re-conception, cyberlearning, etc.) and new functions of the undergraduate learning and teaching enterprise. The IUSE: EHR program recognizes and respects the variety of discipline-specific challenges and opportunities facing STEM faculty as they strive to incorporate results from educational research into classroom practice and work with education research colleagues and social science learning scholars to advance our understanding of effective teaching and learning. Toward these ends the program features two tracks: (1) Engaged Student Learning and (2) Institutional and Community Transformation. Two tiers of projects exist within each track: (i) Exploration and Design and (ii) Development and Implementation.

NSF Advancing Informal STEM Learning (AISL)—Deadline: 11/4/15. The Advancing Informal STEM Learning (AISL) program seeks to advance new approaches to and evidence-based understanding of the design and development of STEM learning opportunities for the public in informal environments; provide multiple pathways for broadening access to and engagement in STEM learning experiences; and advance innovative research on and assessment of STEM learning in informal environments. The AISL program supports seven types of projects: (1) Collaborative Planning, (2) Exploratory Pathways, (3) Research in Service to Practice, (4) Innovations in

Development, (5) Broad Implementation, (6) Conferences, and (7) Informal STEM Learning Resource Center (FY 2016 only).

Opportunities

10/20/15, 12:30pm PST—Webinar: Why all the excitement about logic models? This free webinar, sponsored by the USDA Office of Minority Health, provides an overview of logic models and when to use them in both applications and evaluations. The webinar includes how to write specific, measurable, attainable, realistic and timely (SMART) objectives and how to access logic model designs. Logic model templates are provided. [Register for this webinar.](#)

11/5/15, 12:30 pm PST—Webinar: Getting to know the federal government and funding opportunities A federal funders panel reveals best practices in responding to federal funding announcements. Opportunities for federal funding are identified. This free webinar is sponsored by the USDA Office of Minority Health. [Register for this webinar.](#)

New website from Research + Practice Collaboratory—The [Research + Practice Collaboratory](#) challenges the traditional model of educational research by supporting research-practice partnerships working to increase high quality, equity-oriented STEM learning for all young people. The R+P Collaboratory brings educators together with researchers across the U.S. to engage in mutual exchange and collaboration in support of building more equitable and ethical relationships between research and practice. Check out the new R+P Collaboratory website (<http://researchandpractice.org>) to learn more and explore new resources.

New & noteworthy

NSF INCLUDES national diversity initiative to launch in 2016—In FY2016, NSF will launch INCLUDES (Inclusion across the National of Communities of Learners that have been Underrepresented for Diversity in Engineering and Science), a comprehensive national initiative using a collective impact approach to increase the preparation, participation, advancement, and contributions of all scientists and engineering students, including those who have been traditionally underserved and/or underrepresented in all fields of science, technology, engineering, and mathematics (STEM). This includes underrepresented ethnic/racial groups, women and girls and persons with disabilities. Diversity is a critical driver of excellence in research and innovation in STEM in the 21st century, as the future of science depends upon diversity of thought that will strengthen the scientific infrastructure. Full representation of all of America's STEM talent is a competitive advantage to enrich this diversity of thoughts and approaches, and thus advance science and engineering knowledge and the wellbeing of the Nation.

Graduate Student Instructor program enhances more inclusive classroom climate—In its efforts to create more inclusive classrooms, the UC Berkeley Graduate Student Instructor (GSI) Teaching and Resource Center introduced Interactive Theater to its popular 2015 Teaching Conference, which was attended by almost 1,000 new instructors. The Berkeley Interactive Theater Program, directed by Maria Lucero Padilla and Michael Mansfield, was a joint creation by the College of Engineering and the Department of Performance Studies in an effort to utilize creative theater strategies to improve classroom climate and faculty-student interactions. With funding from the Chancellor's Campus Climate Initiative, the GSI Teaching and Resource Center co-developed the script with Berkeley Interactive Theater, along with a sub-group of the Campus Climate Committee. [Find out more about the training here.](#)

Entertainers or education researchers? The challenges associated with presenting while black—This study investigates how black higher education faculty perceive, interpret, and respond to how they are perceived while presenting within a context of racialized academic scrutiny. Thirty-three black professors were interviewed about their participation in a number of presentation contexts, including national conferences, symposia, and campus job talks. Study participants discussed encountering multiple layers of racial stereotyping and bias, and also how their keen racial awareness enabled them to develop strategic coping mechanisms to manage audience reactions. These strategies also represented the self-sacrifices they made that altered their racial identities. By examining black faculty members' struggles to be valued personally and professionally in white-dominated academic sites, the study findings can enrich critical interpretations of racism in higher education. EO McGee and L Kazembe, *Race Ethnicity and Education*, July 2015.

PDK/Gallup poll of attitudes toward the public schools: Testing doesn't measure up for Americans—Americans believe there is too much emphasis on standardized tests, according to the recent PDK/Gallup poll of public attitudes toward public schools. Respondents said that student engagement in classwork and the percentage of students who feel hopeful about their futures were better measurements for the effectiveness of schools. Other highlights: For the 10th consecutive year, financial support tops the list of the biggest problems facing local schools; public schools continue to rank high in performance, with 57 percent of parents rating them an A or B; Americans do not support using tax dollars (school vouchers) to pay for private education. PDK International, September 2015.

Scientist's guide to achieving broader impacts through K–12 STEM collaboration—The NSF and other funding agencies are increasingly requiring broader impacts in grant applications to encourage scientists to contribute to science education and society. Concurrently, national science education standards are using more inquiry-based learning to increase students' capacity for abstract, conceptual thinking applicable to real-world problems. Scientists are particularly well-suited to engage in broader impacts via science inquiry outreach, because scientific research is inherently an inquiry-based process. This guide is intended to help scientists overcome obstacles that inhibit their engagement in K–12 outreach by scaling outreach projects to the time available, building collaborations, employing backward planning to target specific learning objectives, and transforming institutional incentives to support scientists engaging in educational outreach. LM Komoroske, SO Hameed, AI Szoboszlai, et al, *Bioscience*, Mar 2015.

NSF and Popular Science magazine team up on Visualization Challenge aka "The Vizzies", a competition to recognize the most illustrative and impactful images from the world of science and engineering. Winners will be announced in February.

The Pell partnership: Ensuring a shared responsibility for low-income student success—An interesting new report from The Education Trust finds that within colleges and universities, the average graduation gap between Pell grant recipients and non-Pell students is 5.7 percent. However, some institutions have a much wider range, indicating that too many Pell students attend institutions without strong student support systems. The Education Trust, 9/24/15.

Test-blind success—Many schools are making SAT or ACT scores optional, but when Hampshire College approached admissions fully test-blind last year, they did not consider scores even when applicants submitted them. Inside Higher Ed reports that the college's new practice resulted in a

higher enrollment and more first-generation and minority students being admitted. Inside Higher Ed, 9/21/15.

New study shows 'flipped' science class helps women, those with lower GPA—Physical chemistry students given most course content outside of the classroom scored 12% higher on exams than counterparts in more traditional classes where students listened to lectures, a new study by researchers at the Yale Center for Teaching and Learning and the University of Massachusetts-Amherst (U-Mass) shows. Female students and those with lower grade-point averages benefitted most from the "flipped classroom" approach, in which class time is dedicated to interactive learning projects. According to the authors of the study, the structure of the flipped environment may provide students impetus for less crammed, more uniform interaction with the course material throughout the semester." Yale News, 9/22/15.

About CEO

The **Coalition for Education & Outreach** (CEO) is a volunteer-led community of science educators, program administrators, faculty, and students who work in science, technology, engineering, and math (STEM) education and outreach. Our mission is to further professional development and facilitate the dissemination of best practices and information exchange within the UC Berkeley and Bay Area education and outreach community. CEO co-chairs **Kate Spohr** and **Dan Zevin** welcome your comments, questions, and ideas.