

SURF 2017

It's hard to believe, with the first snow on the ground, but we are gearing up for summer. Here is the latest on [SURF 2017](#).

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This fall, Science Planning voted to increase student stipends to \$4800 for a full-time 10-week fellowship, to better support our students and equalize with CFCF funding rates.

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The [Science Center](#) is coordinating with the [Lazarus Center](#) to share more information about summer research away from Smith to broaden the pool of paid opportunities for our students.

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For the first time this summer, through generous funding from the college, we will have some student materials and expenses research funds available. Look for additional information about this funding in the spring.

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Science Planning Committee along with the Science Center Directors will continue to monitor SURF outcomes and advocate for necessary resource allocations in the future.

Deadlines for SURF applications are in [early February](#).



November/December 2016

FROM THE CLARK SCIENCE CENTER DIRECTORS' OFFICE

The Mentor's Dilemma?



Some of you heard me talking about the impact of critical feedback and its surrounding messages in my Teaching Arts Lunch talk on inclusive teaching last week. As many of us know from Claude Steele's [Whistling Vivaldi](#) and Carol Dweck's [Mindset](#), there are powerful ways in which students' identities and expectations about learning can shape how they respond to the mistakes and failures that are part of the process.

Two studies that I mentioned in my TAL have come up in many conversations with colleagues since last week. The first by Claudia Goldin found that the [likelihood of women majoring in economics linearly decreased depending on their grades](#) in their first college course in the subject. Men's grades in this same class, in contrast, were not related to their likelihood of majoring. Equal feedback in this course did not create equivalent outcomes. There are, of course, a variety of reasons why this might be. Some of the explanations offered to explain the study results make me bristle a bit because they focus almost exclusively on the ways in which individual women need to change their own perspectives (e.g., [Slate](#) covered this study with a headline asserting that women are "too concerned with grades"), rather than recognizing systematic reasons for this gender disparity. In fields like economics and STEM where women are underrepresented, it is easy to see why exemplary grades might be necessary to convince women that they belong and have the capacity for success.

So how do you we send the right kind of messages to our students? It is not necessarily negative feedback itself that undermines student engagement; rather it's the other messages that surround it. In [another study](#), African-American students who received unbuffered criticism of their writing were less motivated to revise, reported lower identification with writing skills, and perceived their White evaluators as more biased relative to White students. When Black students received this same critical feedback but with two other key elements signaling their capacity and belongingness (noting the evaluator's high standards as well as assurances that the student could meet those standards), these effects were mitigated.

We need to address this ["mentor's dilemma"](#) and we provide honest and objective feedback to our students while appreciating the ways in which those messages can be affected by a racial or gender divide. With critique, we must also convey to our students that they belong, that we expect a great deal, and that we know they can succeed.

--Patty DiBartolo

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IMPORTANT DATES & ANNOUNCEMENTS

December 16, 2016 Science Center Holiday Party, 3:30-5:30 pm, Ford Hall Seasons Room
December 22, 2016 YOUNG SCIENCE LIBRARY CLOSSES, 5 PM, FOR NEILSON ENABLING
Early February SURF 2017 deadlines

CONTACT US: PATRICIA DiBARTOLO (pdibarto@smith.edu); MARGARET LAMB (mlamb@smith.edu)



In early December, we submitted a grant pre-proposal to HHMI's [Inclusive Excellence](#) competition. In it, we propose a three-pronged approach to build our institutional capacity for inclusive excellence in science education based on [an evidence-based persistence framework](#) and grounded in institutional strategic planning:

- Fostering **ACTIVE LEARNING** within our calculus curriculum and creating new institutional practices involving a system of culturally responsive assessment
- Offering faculty development focused on expanding **EARLY RESEARCH EXPERIENCES** throughout our science curriculum
- Building the institutional and curricular structures that create student leadership for new **LEARNING COMMUNITIES**

By May 2017, invitations from HHMI to submit full proposals will be issued. In the meanwhile, we will continue conversations and piloting to propel this work.

If you are interested in joining ongoing discussions, contact Patty DiBartolo (pdibarto@smith.edu) and she will direct you to the right group.

SCIENCE EQUIPMENT CAPITAL SUPPORT, FY17 AND BEYOND



One of the biggest projects taken on by the Science Center Directors has been to secure better and more sustainable funding for the maintenance and replacement of scientific instrumentation in the sciences. We've been successful in arguing the need for more resources and have begun to see a flow of increased resources on a one-time basis.

Indeed, we've just agreed with the Provost's and Budget Offices an additional \$340,000 of FY17 funding for equipment, making it possible to replace a number of pieces of scientific equipment that chairs and directors have already let us know are priorities. We've worked with Science Planning Committee and the Science Center Equipment Committee to make changes in our collaborative governance of equipment maintenance, replacement, and renewal. We've also made substantial progress to create and update a Science Center Equipment Database as an adaptable tool for lab and equipment managers, inventory, and planning.

Our next major milestone is a bid for permanent (base) funding of scientific equipment at a sustainable level. With this next step in mind, the Directors have completed the science's first Equipment Capital Plan (ECP) to submit to the

College's senior administration. We have just received endorsement of the ECP from both Science Planning and the Science Center Equipment Committees. Patty and I will deliver the plan so that it can be considered during this year's strategic budget deliberations for the college.

--Margaret Lamb

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