



# TRESTLE

TRANSFORMING EDUCATION, STIMULATING TEACHING AND LEARNING EXCELLENCE

September 2017

## Help students reflect on their learning.



Last semester's TRESTLE Scholars (a group of faculty meeting biweekly, facilitated by Becca Ciancanelli in SASC and Jenny Knight in MCDB) explored ways to improve studying and learning skills in students through metacognition (or reflecting on one's learning). The group read articles and tried out approaches such as "muddiest point," "exam wrappers," and instructor reflections.

Faculty felt supported in being serious about incorporating metacognition into their teaching. One participant reflected, "As I work on my current class, I have a voice in my head continually asking, Can I point students to do this activity in a way that reinforces their metacognition?" Participants also noted that these metacognitive strategies opened up conversations with students, having a strong impact on students' emotions: "Students assume that we don't care about the learning process if we don't ask," reported the group. They also noted that student buy-in to assignments was strongly affected by student self-reflection.

To read the group's report, with descriptions of the 3 activities they tried, see <https://www.colorado.edu/csl/trestle/trestle-scholars-learning-communities>.



Center for STEM Learning  
UNIVERSITY OF COLORADO BOULDER

## TRESTLE NEWS

**TRESTLE ShInDiG** is a drop-in discussion group for STEM instructors. ShInDiG for this semester is on the first **Wednesday of the month (10/4, 11/1, 12/6)**. Time, location and topics TBA. *Doodle poll*

**TRESTLE Mini grants (\$1000)** to support STEM education reforms are available; see the TRESTLE website for more, including examples of successful applications. Congratulations to recent awardees Rebecca Machen and Rhonda Hoenigman!

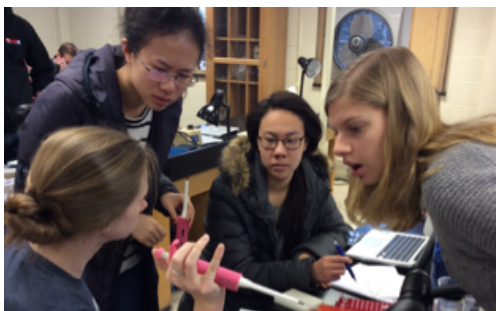
**TRESTLE course transformation awards (\$10,000)** to support course transformations. We have funding for one more award; RFP will be released in Fall for a November deadline. Applications and reports from past and current projects (ENVS, PHYS, IPHY and MATH) on our website.

**TRESTLE Scholars** will begin a new group in Spring 2018. The topic has yet to be determined, but we have had several suggestions for an assessment-focused group. Ideas for topics, or facilitators, welcome.

**TRESTLE Virtual Brownbags and Colloquia** occur regularly across the 7 TRESTLE partner institutions. See email or <http://trestlenetwork.org/meetings-2/>.

**TRESTLE** is a multi-institution, NSF-funded project focused on improving STEM education methods at research universities through embedding educational expertise directly into departments, and building intellectual communities around educational improvements.

## Fall Scholars explore course-based undergraduate research

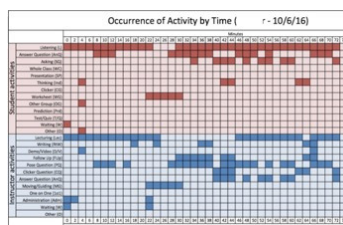


This semester's TRESTLE Scholars group is exploring Course Based Undergraduate Research Experiences (CUREs). Led by Lisa Corwin (EBIO) and Pamela Harvey (MCDB), this group of 14 faculty will explore the research and practice of helping students see themselves more like scientists. "Research is such a keystone experience for students, but how to integrate research into existing courses remains a mystery for many instructors," says co-facilitator Lisa Corwin. "We'll be working together to build successful CUREs this semester." Stay tuned for the outcomes and reflections from this group!

## Get a new view on your teaching

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Good teachers use feedback to adjust their classroom experience. But how can they get that feedback in a way that is helpful and not time-consuming? Arts and Sciences Support for Education Through Technology (ASSETT) has recently launched a service to provide this feedback. For more information contact us at [asset@colorado.edu](mailto:asset@colorado.edu) or see our web site: <http://www.colorado.edu/asset/programs/vips>.

## Student buy-in

## Strategies



If you incorporate active-learning strategies into your teaching, you may find that students don't automatically embrace this new learning approach. Students may just sit back and listen, waiting for their peers to answer. They may engage enthusiastically at first, but that exuberance wanes in the face of a busy semester. Students may even openly resist and complain (though this is somewhat rare). The TRESTLE PI Chasteen recently published a set of articles on how to improve student engagement in active learning, by setting clear expectations, helping students reflect on their learning, motivating students through interest and rewards, and creating a class community. Many of these strategies are good to use now, early in the semester (and then reinvigorate later).

**See**

**<http://physport.org/expert/framing>  
for the full set of articles and  
resources.**