Supplemental Material

CBE—Life Sciences Education

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Supplemental Material. Copy of survey measures used in study.

Table 1. Faculty motivational measures

Measure	**Items**
Value of Teaching	How important is it to you that you teach science well? How important is it to your academic peers that you teach science well? How important is it to your department that you teach science well? How important is it to your scientific field that you teach science well?
Value of Research	How important is it to you that you conduct scientific research? How important is it to your academic peers that you conduct scientific research? How important is it to your department that you conduct scientific research? How important is it to your scientific field that you conduct scientific research?
Growth Mindset	I believe that you have a certain amount of intelligence and you really can't do much to change it. [Reverse coded] I believe that your intelligence is something about you that you can't change very much. [Reverse coded] I believe that you can learn new things, but you can't really change your basic intelligence. [Reverse coded]
Teaching Anxiety	I find myself worrying that I won't know what to say in social situations with my students. I am nervous mixing with my students that I do not know very well. I am tense mixing in a group of students. I can feel conspicuous in front of my class. I feel tense when my students are looking at me. I would get tense if having to sit facing my students for any extended period of time. I worry about shaking or trembling when I'm watched by my students. I can suddenly become aware of my own voice when my students are listening to me. I can get tense when I speak in front of my class.
Confidence	I will be able to achieve most of the goals that I have set for myself. I believe I can succeed at most any endeavor to which I set my mind. I am confident that I can perform effectively on many different tasks. Compared to other people, I can do most tasks well. Even when things are tough, I can perform quite well.

Table 2. Perceived Supports Items.

Academic Receptivity	**Student Receptivity**
My colleagues (peers) are supportive	My students are teaching each other
My department appreciates my efforts to improve scientific teaching	My students will cooperate with the activities
I get support from my department	My students are focused and engaged in the material
My colleagues (senior) are supportive	My students appreciate the interactive aspect of active learning
I get support from the SI community	My students who are farther along in the material are encouraged when they are in group work
The culture in my department appreciates effort expended for teaching	My students who are shy are comfortable during group work
The culture in my department prioritizes teaching over research and my efforts are appreciated	My students who have a hard time focusing are on task during group work
Personal Teaching	**Logistic**
I enjoy being interactive with students	I have been able to find materials to help me with activities
Having an active classroom is more fun for me	Clicker activities are a fun way to make my point
The class is transformed into a lively space during group activities	I am able to cover the material without a lecture
I enjoy coming up with class activities	I am able to cover all of the required core material
I am getting to know my students better	
I am comfortable giving students ongoing feedback and enjoy the interactions with them	
I am excited to be figuring out new activities for class	
I am more comfortable teaching in an interactive way	
I feel as though I have a handle on the process of scientific teaching	
Scientific teaching is my style of teaching	
I feel that implementing inclusive teaching is making me a more sensitive teacher	
I am more comfortable with an active classroom than with my lecture and PowerPoints*	

Table 3. Perceived Barrier Items.

Academic Receptivity	**Student Receptivity**
The culture in my department prioritizes research over teaching	I am concerned for my students who are shy feeling uncomfortable during group work
My efforts in teaching could be misconstrued as reduced efforts in research and hurt my career	My students are not as enthusiastic about active learning as I thought they would be
My colleagues (senior) to me are not supportive	My students will not appreciate having to work more in class
My colleagues (peers) are not supportive	I am worried about my students who have a hard time focusing taking the group work off task
My department is not supportive	I am concerned about my students who are farther behind getting discouraged when they are in group work
The SI community has not continued to support me	My students will not appreciate the interactive aspect of active learning
	I am worried that my students will not cooperate with activities
	My students are not focused enough to engage in material without more class structure
	My students are not able to work at the level that active learning requires
Personal Teaching	**Logistic**
I have a hard time coming up with class activities	I do not have enough time to prepare class materials
I do not feel that I have enough knowledge to implement inclusive teaching (i.e., sometimes I do not even know what the correct thing is to say)	I do not have enough time during class for the activities
The whole process of redesigning my courses is simply intimidating	I worry that we will not be able to cover all of the required core material
I am overwhelmed with trying to figure out what to do and I do not know where to start	I do not have enough class space for group activities
I am not enough of an extrovert to be so interactive with students	There is not money for class activities
I am more comfortable with my PowerPoints as they are	There is no money for clickers
I am not comfortable teaching in an interactive way	
I am not comfortable giving students ongoing feedback because it might spur on uncomfortable interactions	
[Evidence-based teaching] is simply not my style of teaching	

Table 4. Implementation of evidence-based teaching.

Items
Considering learning goals in the design of activities for the class backward design
At the onset of a course telling students what they should know and be able to do upon course completion
Setting and communicating learning goals for students for each class
Implementing formative assessments while learning is occurring that inform students' progress toward desired outcomes
Structuring class time to include activities that engage students in their own learning
Using exercises that generate group discussion
Encouraging students to generate class wide discussions
Providing feedback to students throughout the semester
Identifying students' misconceptions so that they may be corrected
Using exercises that lead students to draw their own conclusions
Using summative assessments of learning outcomes (i.e., to measure the students' achievement of learning goals)
Using Blooms taxonomy which defines depths of understanding when preparing exams
Encouraging students to think about their own learning processes aka metacognition
Designing class content that represents the perspectives and contributions of people with different origins genders and affiliations
Implementing inclusive teaching in the classroom
Encouraging students to think of science within the context of society
Choosing diverse teaching methods to optimize learning for diverse students
Taking precautions to reduce the influence of any implicit bias that I may hold for example grading papers without knowing the identity of the student
Representing science as a process of the scientific method