FAQS

1. What is a mobile summer institute and how does it differ from a regional summer institute.

Briefly, the mobile SIs combine the successful pedagogy workshop of the original National Academies Summer Institutes with three new elements based on Charles Henderson's 4 Categories of Change model. The new elements are: 1) a peer-evaluation workshop, 2) scholarly teaching workshop, 3) a strategic planning workshop, and 4) an administrator's workshop.

The mobile SIs occur twice at each host institution on consecutive summers, in a train-the-trainer mode that will leave behind the capability for each host institution to offer its own future summer institutes. The first year, a 2-person team travels to the host campus and leads the workshops and facilitates along with local SI alumni. The second year, a 1-person team travels to the campus and provides coaching and feedback for the local SI alumni to lead the workshops so that they will be able to run their own internal SIs in the future.

2. What is a typical schedule for a mobile SI?

Below is a sample agenda. The SI proper has been shortened from the original model. The strategic planning and admin workshop are independent and can move around as needed based on local scheduling needs.

Day 1	Day 2	Day 3	Day 4	Day 5
Facilitator training for local facilitators	-Backward Design	-Peer Mentoring/ Evaluation	-Presentation Prep	Strategic Planning II
		-Scholarly	Presentations	
		Teaching		
Lunch	Lunch	Lunch	Lunch	Lunch/Admin workshop
-Intro & Welcome	Group Work	Group Work	Wrap Up	
-Inclusivity;			Facilitator Debrief	
-ST in Action		Group share		
			Strategic Planning	

Opening Reception (optional)	Facilitator debriefing meeting	Facilitator debriefing meeting	
	meeting	meeting	

3. What are my institution's obligations to host a mobile SI.

The NSF (Withers, WVU) and HHMI (Frederick, Yale) grants pay for the travel, lodging, salary, and meals, for the mobile SI implementation team.

Your institution will be responsible for doing the local organizing and recruiting (we will supply the booklet and recruitment materials) and for supplying:

- a) meeting spaces 1 large meeting space equipped for the presentations (projector, whiteboards...) for the morning workshops and several smaller spaces for the afternoon group work (for most of the MoSIs we've used local seminar rooms and classrooms which are free and effective;
- b) local meeting supplies large and small post-it notes, pens, cardstock for name tents, printing of the booklet and handouts, guest internet connectivity for the speakers, and a clicker set if you have them, etc (this is pretty minimal in terms of cost);
- c) food for participants (optional) the participants are local so you don't need breakfast or dinner, but I recommend providing lunch because it keeps people from wandering away mid-day and potentially going back to their offices/labs and not returning in the afternoon. You can keep costs down on this by supplying very simple salads/sandwiches and possibly one coffee break with snacks.
- 4. How does the scheduling of dates work? Do you assign us dates? Do you work with us to come up with mutually agreeable dates?

We work with the host institutions to arrive at the best dates for their campus.

<u>Tips on scheduling from Bill Davis at WSU, a previous mobile SI host campus:</u>

We've found scheduling can be a bit tricky but we think we have it worked out. If you do it too late in the summer then people have dispersed for vacations and summer travel. Too close to the end of the term and people are wrapping up the academic year with departmental retreats/meetings. We are going to shoot for ~1 month after the end of the academic appointment calendar this year.

5. Are we able to move beyond life science faculty and recruit STEM faculty from all disciplines on campus?

Absolutely. Our goal is to train a critical mass of local STEM educators to help with bigger institutional transformation. Some institutions may want to start with a single unit/department and expand out from there while others will want to cast the net wide from the start. In fact, both of these modes were employed during the first pilot summer (2014) of the mobile SIs with one campus focusing solely on their Biology Dept and the other inviting STEM faculty from their own and satellite campuses. Since we will visit each host campus twice in a train-the-trainer mode, the goal is to leave behind the capacity to run internal SIs to continue to expand the local pool of trained STEM educators. So, either mode will work.

<u>Tips on recruiting from other disciplines/campuses Bill Davis at WSU, a previous mobile SI host campus:</u>

The answer should be "absolutely"! At WSU we elected to have an open institute both years that we have offered the SI. We've had individuals from 6 different colleges at WSU and people from many different disciplines (some that come to mind are Economics, Chemistry, Biology, Libraries, Education, Entomology, Physics, Environmental Engineering, Communication). Having a diverse group of faculty was wonderful for the conversations during the institute, and while the assignments to working groups often were focused a bit narrowly (all physical sciences; all life sciences), we did have some diverse mixed-discipline groups who came up with amazing interdisciplinary lesson plans. One of them was just approved as a Case Study at Buffalo and has been implemented in non-majors and majors courses in Physics and Food Science at both WSU and the University of Idaho. We also attracted faculty from our branch campuses and from the University of Idaho and Spokane Falls Community College to our Institute, which led to collaborations across institutional boundaries.

6. Might we include postdocs (teaching postdocs) and STEM graduate students with teaching aspirations in our recruitment?

Yes, we definitely don't want to exclude future STEM faculty. However, we also don't want to have only graduate students and post-docs because when they leave, we won't have achieved the critical mass of educators to help push institutional transformation at the host institution, which is one of our main goals.

7. It seems there is a keen interest in capturing administrators. Will you be providing some information as selling points for this workshop?

Yes, we will provide recruitment information for the SI proper (pedagogy workshop), the admin meeting and the strategic planning session. We try to keep the admin workshop short, be sensitive to busy schedules. We do a brief introduction to what the SI brings to campus and then do an interactive part with them discussing how they can best support the reform initiatives that come out of the SIs, particularly from the strategic planning sessions. At one campus last year where I thought the admin workshop was particularly useful, the administrators came in at the end of the strategic planning sessions and heard the report out by the groups on their plans. Then while everyone ate lunch, I did the intro for the administrators and then we went into the interactive part with the faculty in attendance and there was a lot of great communication between the faculty and administrators. I wasn't sure what to expect. I worried that there might be defensiveness or heated argument, but it was great. Very gratifying.

Sample recruitment letters from E. Vandegrift at U Oregon:

The Howard Hughes Medical Institute (HHMI), the National Academies, and the Science Literacy Program invite you to attend a Summer Institute on Scientific Teaching June 22-25, 2015 (UO faculty and post-docs only) OR July 13-18, 2015 (National teams) at the University of Oregon. The Summer Institute will expand and sharpen participants teaching skills through workshops facilitated by national science education experts. Participants will develop original, innovative classroom materials ready for immediate implementation and will be named 2015-16 National Academies Education Fellows at the end of the institute.

Mobile Summer Institute June 22-25, 2015, Application due date: April 30, 2015

West Coast Summer Institute July 13-18, 2015, Application due date: May 15, 2015

Questions and nominations: ellyvan@uoregon.edu

In their own words, "Attending the Summer Institute (SI) was a transformative experience for me professionally. I am a new instructor and a postdoc, and the intensive training, motivation, and "re-education" on higher education provided at the SI gave me with new skills, confidence, and a boost to my CV while applying for jobs. The basic philosophies promoted and explored in the SI are nothing short of revolutionary. The workshops provided me with practical skills for transitioning these ideas into the classroom as well. Participating in this institute has made me feel like I am tuned into the most current and nationally accredited best practices for teaching in the college classroom, and has given me tools to excel as an instructor. It is an extremely worthwhile and inspirational experience that has literally inspired and transformed my teaching and my career." -Ann Petersen, UO Institute of Ecology and Evolution and 2014-15 National Academies Education Fellow

Administrator Invitation

The Science Literacy Program will host a week-long <u>National Academies Mobile Summer Institute</u> on <u>Undergraduate Education</u>. As science education reformers at the UO, we invite you to join us for half day session and/or lunch devoted to strategic planning for UO STEM education reform.

Michelle Withers, University of West Virginia and Randall Phillis, University of Massachusetts, Amherst will facilitate the strategic planning session **Friday, June 26th 8am-12noon workshop and lunch 12-1pm with UO administrators.** Lunch will be provided. **Please RSVP to** ellyvan@uoregon.edu **by June 5.**

The session is driven by the reality that nationally, fewer than half of STEM undergraduates successfully complete their degrees; this is particularly true for women and under-represented minorities. Although the literature definitively documents that active learning strategies improve student success and retention as compared to other approaches, the vast majority of current STEM faculty members still primarily rely on traditional lectures as their primary teaching strategy. This is likely due to a lack of formal pedagogical training for faculty combined with departmental cultures and traditions that inadvertently dis-incentivize reform efforts.

Please join us to discuss how the National Academies of Science's Mobile Summer Institute team can help our campus move towards increased levels of student success and retention in the sciences.

Questions from Host Campus Meetings

- 1. What is the typical size of a MoSI?
 - a. depends on number of facilitators and size and number of rooms available
 - b. Groups should be between 4-6 people
- 2. For large group room is a flipped classroom design or theater seated classroom better?
 - a. If you have a room where people can sit in groups, that would be better
- 3. What do the rooms need?
 - a. You need projector, speaker, internet access, whiteboards or post-its
- 4. What disciplines are best served by a MoSI?
 - a. Any discipline. We're shooting for STEM disciplines, but we've had outside of STEM participants as well.
 - b. The only place we limit a little is the percentage of future faculty participants. You should have more faculty than future faculty, just because we're trying to elicit change in a location and future faculty (like postdocs and grad students) will likely not be there long-term
- 5. Can Michelle share the semester-long version of SI she teaches for future faculty?

- a. Yes! This is a viable way to keep the MoSI momentum going after the trainers are no longer involved in the third year.
- 6. What is the inclusivity workshop like?
 - a. Very interactive workshop. For each workshop, there is a hidden prep slide that helps the presenter know what to have available. We always try to model backwards design. It is very active and we try to get people talking about things instead of the presenter 'telling' them things.
 - b. Three main topics unconscious bias, stereotype threat, privilege
- 7. Do you ever have a larger audience for group presentations?
 - a. Yes, it depends on what you'd like. Some places have invited administrators or future participants.
- 8. What do you do in the strategic planning workshop?
 - a. Leaders facilitate group through different these activities:
 - i. Visioning
 - ii. Needs assessment
 - iii. Consensus forming
 - iv. Backward design for planning
- 9. What are our next steps as hosts?
 - a. Work with your trainers to set dates for your MoSI
 - b. Look at check list
 - c. Recruit people for facilitators
- 10. Do participants get recognition for going to the MoSI?
 - a. Yes, they get certificates as Scientific Teaching Fellows from the Yale Center for Teaching and Learning
 - b. There is also a blerb that people can put in their CV regarding this training
 - c. Can also send out announcements to department heads, provosts, deans, etc. that individuals have completed this experience and training
- 11. Is there a follow-up meeting?
 - a. Yes, there is a zoom virtual conference that we will hold with participants to check in and see how things are going we hope to hold these in Jan or Feb after the MoSI
 - b. The MoSI trainers are also back on campus the next year so there is another opportunity for check in
- 12. Is there a follow-up for administrators?
 - a. There is a half hour at the end of the regular follow-up meeting that is devoted to admins, but it is up to you if you want them there for how long etc.
- 13. If there are multiple campuses involved, how does strategic planning session work? Do the campuses split up or do you work as a whole?
 - a. It's up to you and the admins, but historically, campuses have split up to create their own strategic plans
- 14. Should workshops be in an active learning classroom?
 - a. If available yes, but can work in other environments
 - b. It's also a nice option for people to have access to a more traditional room (i.e. stadium, etc) to do their final presentations in

- 15. How should we schedule the MoSI dates?
 - a. Work with the trainers to schedule a date. If there is a date that works best for your campus but none of the identified trainers can make that, we can assign new trainers.