

CAREER Awardee Virtual Meeting Tips for Working with Graduate Students and Advisors

On January 18, 2017, DR K-12 CAREER awardees met virtually with a former CAREER awardee to discuss working with graduate students and advisors. These notes capture the highlights from their conversation and offer tips for other NSF grantees.

Advice for Working with Graduate Students

As a principal investigator, you serve a dual role as both supervisor and mentor to your graduate students, which means you are responsible for guiding their work on your project while also helping them develop as scholars. These students will rely on you for guidance during their journey from student to professional, and there are a number of ways you can catalyze this experience:

- Explore ways in which students' professional interests and goals intersect with the project work. Finding ways to merge these interests can position students well for when they begin their careers.
- Allow students to brainstorm about what they need in order to do the work (e.g. support with data collection or analysis). It's important to be responsive to students' needs while also being flexible when those needs change.
- Have students work with PIs (and other project team members) to co-develop courses, lab protocols, methods for sharing information and findings, and strategies for mentoring.

As you build your capacity to mentor, also support students in their *own* mentoring. Peer mentoring can be especially valuable for both the peer mentor and peer mentee. It can also allow you to focus on other types of mentoring. For example, if a graduate student is mentoring research assistants on coding, you are free to focus your mentoring on proposal writing.

Students need to know that it's not only okay but it's essential to reach out for support to develop their ideas. Sharing ideas can be intimidating, but as students become more comfortable, they will start to see how to take little bits of inspiration and build them into powerful ideas. It's good to hold regular meetings where students can brainstorm and share their ideas—no matter how raw—and receive feedback. Infuse project meetings with conversations about how you start to identify questions and think about future projects

Give all students an opportunity to present at conferences and/or co-author publications. As a group, review lists of conferences and publications, and discuss the different roles available before selecting students to take on those roles. Identify common themes in your project work that can be leveraged for students' own publications and future work.

Work with your grad students on writing fellowship proposals. Students bringing in additional funding can give them a sense of ownership while also freeing up CAREER funds for new hires.

And while students are learning, writing, discussing, and presenting the work, have them document their challenges and successes on a weekly basis. And as life might feel somewhat overwhelming for graduate students at times, it is your responsibility as their supervisor and mentor to set a good example for them of work–life balance.

Advice for Working with Advisors

Advisors are like mentors for your project. You chose them for their specific expertise, and their role is to provide good formative and summative feedback and to ask good questions. There are a variety of ways to work with your advisors. For instance, you can call advisors throughout the year with particular questions, visit them with materials that you want them to review and/or respond to, or plan to meet up with them at conferences or other events. No matter your chosen way to meet up with your advisors, it's best to give them something concrete to respond to directly: a list of questions, draft materials for review, etc. The more specific you are, the more likely it is that you will get the advice you need.

IN-PERSON MEETINGS

In-person meetings with an advisor or advisors can be particularly productive if well planned. You can pick and choose who you want at an advisory board meeting. If you choose to invite only a select group, you can consult with the other advisors in different ways, such as through one-on-one meetings or phone calls. What's important is that you structure your meeting so that you get what you need out of it. It's a lot of work and it can be intimidating, but it gets easier with practice.

Tips for structuring your in-person meeting:

- Get a date on the calendar as soon as possible.
- Start planning early.
- At the meeting, share an overview of your plan (for the entire project or for the upcoming year), and invite questions and feedback.
- Provide your advisors with something concrete to respond to: targeted questions, lesson plans to review, feedback on pedagogical framework or learning trajectories, etc.
- Experiment with different formats: whole-group discussions, smaller breakout groups, partnered activities. Keep them busy.

Consider having students present about different aspects of the project at the advisory board meetings. This is great for team building. It gives them experience with presenting the work and a degree of ownership/accountability. It also gives the PI the ability to relax at times and focus on the discussion.

If you experience a clash between advisory board members or an unproductive conversation, steer the discussion in another direction by, for instance, identifying an area of agreement or moving onto another agenda item.

VIRTUAL MEETINGS

Virtual meetings can be structured similarly to in-person, but it can be challenging for people to remain engaged through an online platform. You can keep the meeting relatively short and follow up with phone calls to individual advisors afterward. Virtual meetings also require a lot of planning, and it's good to have back-up plans in place if technology doesn't cooperate.

SUSTAINING ADVISOR RELATIONSHIP

When your CAREER award begins to wind down, think about transitioning your relationship with your advisors from advisee to colleague. This change may require a shift in mindset for you and for them, and in some cases, it just may not work out. But it most cases, it should become more comfortable if you try some of the following strategies:

- Start looking for other sources of funding and ways to continue working with advisors with whom you've developed a good working relationship.
- Think about possibilities to publish, present at conferences, or write proposals together.
- Begin thinking more about ways you can contribute to their work.

Note: As an early career scholar, be careful not to let a publication or presentation with a well-known expert in the field to become *their* work and overshadow *your* contributions.

A FINAL COMMENT: NETWORKING

Make and sustain strategic connections. Figure out what areas you'd like to continue developing and identify people who can help you.

When looking for advice, consider consulting with professors emeriti if you have difficulty getting in touch with current professors because of their busy schedules. You are part of the professor emeriti's legacy, and they are often eager to help early career scholars.