

EQUITABLE RESEARCH COLLABORATIONS BETWEEN FACULTY & GRADUATE STUDENTS: BEST PRACTICES

CHARACTERISTICS OF SUCCESSFUL AND EQUITABLE FACULTY AND GRADUATE STUDENT RESEARCH COLLABORATIONS¹

Successful collaborations often share key characteristics that help ensure members of the team are working well together, that all members are treated equitably, and are striving toward common goals. These include:

- Recognition of, and adjustment for, power differentials in the collaboration (these power differentials could be based on rank, gender, race, or other group dynamics). For example, setting up team meetings so that everyone has a turn to speak.
- Trust and safety (mental and physical), particularly for those who may be more vulnerable in the collaboration. Trust builds over time, and teams can begin with an agreement to keep all team conversations confidential.
- Setting common goals and having common values. Having a living document to articulate the goals of the particular collaboration may be helpful to structure this conversation.
- Striving toward and maintaining an equitable environment in which each voice, intellectual input, and direction is valued. The rich communication of an equitable collaboration may mean that more time needs to be allocated to synchronous meetings so that everyone can take a turn contributing ideas.
- Being transparent about the project's progress, challenges that may occur, financial issues (particularly if they have implications for personnel funding), etc.
 - This transparency includes conversations about stipend and benefits and how different projects may impact for the financial

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support of graduate students.
Being clear is kind.

- Communication with each other and agreed upon process (e.g., expectations for response time) for professional communication in person, via email, in virtual environments.
 - Quality of communication is more important than quantity. Honesty about limitations on time and resources is key to establishing boundaries for the collaboration.
- Consideration of (a) working style (b) research fit and (c) personality match. Sometimes collaborations do not 'click' and that is okay. Setting a time frame for a trial period to see whether or not the collaboration will work can be useful if everyone agrees to it. If a trial has funding implications, this should be openly discussed.

MENTORSHIP IN COLLABORATIONS

There are extra considerations and responsibilities when collaborating with graduate students. Collaborations between faculty members and graduate students often include a mentorship component that may not be present in other collaborations. Given this component, it is important to discuss expectations and assumptions of both parties in the collaboration.

¹ Bozeman, B., Gaughan, M., Youtie, J., Slade, C. P., & Rimes, H. (2016). Research collaboration experiences, good and bad: Dispatches from the front lines. *Science and Public Policy*, 43(2), 226-244.

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Components of mentorship in collaboration include:

- Engaging a holistic approach that includes empathy and understanding for the whole person and understanding the ways in which personal and professional experiences may impact the collaboration.
- Emphasis on education within the collaboration (e.g., teaching specific skills or processes) and professional development for all participants. Having an early conversation about expectations for what each person will gain from the collaboration is important.
- Intentional discussion of roles and responsibilities (e.g., not making the assumption that graduate students understand the scope of what they are expected to do without clear discussion).

CONSIDERATIONS FOR THE COLLABORATIVE RESEARCH PROCESS ACROSS CAREER STAGES²

Collaborations have different considerations at various stages of a career. These considerations are important in facilitating ongoing conversations and maintaining project momentum.

Graduate students typically fill the role of mentee and/or tatician (providing a complimentary skill set to faculty members).

Faculty members across career stages can inhabit a variety of roles including:

- Mentor – helping graduate students or junior colleagues.
- Task Oriented – collaborator with a strong commitment to tasks and timeline.
- Follower – collaborator with strong scientific reputation and promotes collaboration.

Given the variety of roles that graduate students and faculty members can inhabit in the relationship, it is important to have a conversation about what

collaboration style works best for both parties.

These conversations can be challenging and may be best facilitated using pre-existing tools such as those listed below.

RESOURCES FOR COLLABORATIONS

There are a variety of resources available to help faculty and graduate students have important conversations about mentoring, authorship, and collaboration. Faculty are encouraged to sign up for the well-received mentor training offered by the Graduate School. These resources include:

- [CRedit Taxonomy](#)
- [Authorship Agreement](#)
- [Team Contract](#)
- [Collaborative Agreement](#)
- [Lab Manual](#)
- [Advising Statement](#)
- [Title IX Best Practices and Guidance](#)
- [National Research Mentoring Network](#)
- [Center for Improvement of Mentored Experiences in Research](#)

This resource is based on presentations and suggestions made by Dessie Clark of University of Massachusetts, Amherst and Monica Gaughan of Arizona State University.

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² Adapted from Bozeman, B., & Corley, E. (2004). Scientists' collaboration strategies: implications for scientific and technical human capital. *Research policy*, 33(4), 599-616.