Responsible Conduct of Research
Role-Plays

Mentoring

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RESOURCES

Role-Play Summary
This scenario highlights the mismatch of expectations that can arise in a mentoring relationship between a graduate student and a research adviser. The adviser wants a solely professional relationship, but the student seeks a more personal relationship. Their inconsistent desires lead to inconsistent expectations about how long they should meet and what they should discuss, and subsequently to misunderstandings about the preliminary results.

Some of the problems in this scenario could have been avoided had the adviser and student negotiated mutual expectations and responsibilities when they first began working together. In general, a professor and student should agree on expectations, such as how frequently they would meet, and how quickly the professor would review the student’s draft manuscripts. They should update these expectations periodically. As the student matures from apprentice to colleague, the student should take increasing responsibility for the direction of the research, and the professor should shift from providing technical advice to guiding the student in professional networking and in career preparation. A professor should recognize that different students need different amounts and kinds of guidance at different years of their studies.

The ideal mentoring relationship is both personal and professional: a mentor is more than an adviser but less than a friend. Besides providing technical and professional advice, a mentor should instruct the student in the norms in the discipline, such as how colleagues should interact with each other, and in the standards of research practice, such as how research data should be managed. A mentor should advocate for the student by recommending the student for fellowships and awards, by introducing the student to researchers at other institutions, and by helping the student find professional employment, including postdoctoral and faculty positions.

As in any close interpersonal relationship, conflicts in the mentoring relationship are inevitable. A professor and student may disagree over the inclusion of co-authors on a paper, or over the interpretation of experimental results. Students can feel inhibited from honestly expressing serious disagreements because professors hold great power over their advancement.

Rarely can a single professor provide all of the advice that a graduate student needs to develop professionally. The student should therefore find multiple senior mentors. In addition, the student can benefit from the diversity of perspectives of multiple mentors.

This role-play scenario illustrates a common situation in which each person starts with only partial information: the professor does not know that the preliminary results were actually only anticipated results, and the student does not know that the professor is annoyed by the student’s lack of focus on technical work. To ensure that each person receives complete information, the professor and student must communicate openly: the student should convey the bad news about the results clearly, and the professor should criticize the student’s behavior constructively. But the situation is risky because each person will be disappointed by the other’s information.

To communicate in a risky situation (Patterson et al., 2002), each person should first state the facts and his or her own interpretation of the facts, then invite the other’s interpretation. Each person should use tentative language. Each should listen carefully to the other, asking questions for clarification. The professor might say, “I notice that you are spending a lot of time organizing social events. (States facts.) I am concerned that you do not..."
seem committed to the research project and developing independence. *(Shares personal tentative interpretation.)* How do you see the situation? *(Invites interpretation with a question.)*
Resources on Mentoring


University of Michigan, How to Get the Mentoring You Want, Online at http://www.rackham.umich.edu/downloads/publications/mentoring.pdf

University of Washington, How to Obtain the Mentoring You Need, Online at http://www.grad.washington.edu/mentoring/GradStudentMentor.pdf

Resource on Interpersonal Communication


Responsible Conduct of Research Resources

Columbia University (includes a section on mentoring), http://ccnmtl.columbia.edu/projects/rcr/


Online Ethics Center, National Academy of Engineering http://onlineethics.org

Research Ethics Modules, North Carolina State University (includes a module on mentoring), http://www.fis.ncsu.edu/Grad/ethics/modules/index.htm
