



# Responsible Conduct of Research

## Conflict of Interest

### Introduction and Instructions

#### Using Role-Plays in Ethics Education

Role-playing can be a powerful learning experience and stimulate lively discussion and debate. However this active learning technique, which most people are unfamiliar with, can also make participants feel awkward and uncomfortable at first. The key to its use is to introduce and frame the technique to any group before starting.

#### Introduction (2-3 minutes)

We generally start a session by talking about the technique and why we use it. We often label it as “experiential” or “active” learning as we talk about it. This introduction can be done relatively quickly and will improve the participation and comfort level of the group.

Points we make include:

- Role-playing is a type of active learning technique. As such, it promotes deep learning, long-term retention and can be very memorable and powerful
- Participants might feel awkward at first, but they are encouraged to participate as fully as possible. The more authentically they engage in their role the more they will learn
- There are no “right” answers in role-plays
- Participants are not being graded
- The purpose of the exercise is to provide an active learning experience in a safe setting where ethical issues can be explored without being about a real problem
- Because role-plays (or simulations) are participatory, educators believe that the information learned will be retained longer and will be more easily accessible in the future if it is needed
- This training will help participants be prepared to recognize and address ethical problems. By grappling with the sorts of ethical problems that arise regularly in professional life in this safe, non-threatening role-play setting, participants can think through the problem and gain some skills and tools to use should they ever encounter such a problem. We think of this as an “inoculation model.” By practicing these conversations you become “vaccinated” and thus better able to resist confusion and anxiety when questions of ethical research arise
- These scenarios are based on real situations that real people encountered (You cannot make this material up)
- After the role-play we will discuss the experience. We also will discuss the outcome of the real-life situation upon which the role-play is based, where possible



- For anyone who is truly too uncomfortable to try it out, we have an observer role. The observers are expected to take notes as they watch others do the role-play and then to provide comments back to the other participants in their group at the end of the process.

### Instructions (10-15 minutes)

**[These instructions are scheduled to take a little longer than the other role-plays because the participants need to be instructed on some basic principles regarding conflict of interest.] After introducing the role-play technique, we then instruct the group about conflict of interest, including what conflict of interest is; what policies and guidelines the university has in place to prevent, monitor and resolve conflicts. We also discuss the larger societal issues at play that make conflict of interest even more difficult to avoid than it has been in the past.**

**Conflict of Interest: What is it?** Conflict of interest occurs when someone is in a position to influence decisions in a way that might benefit (usually financially) themselves or another member of their family. Conflict of interest also occurs when another activity interferes with a person's ability to put their institution's needs and interests first (also called a conflict of commitment). This can happen when a faculty member has a start-up company, which can often demand a lot of time and attention, or when a faculty member spends a lot of time and energy providing consulting for an outside institution or interest.

*Conflicts or potential conflicts are everywhere.* Today, as researchers seek funding and companies are providing it, tension endemic to the relationship between those two entities occurs. Conflict is created, for example, when a commercial interest funds research and then, because of its commercial goals, wants to keep the findings secret as long as possible, while the scientist's goal is to publish the results as quickly as possible. That represents a conflict between the role of the university in society, which is to disseminate information in a timely manner, and the goals of the company, which is to make money. Optional step:

### Guidelines

Universities have implemented policies to prevent and/or resolve conflicts of interest. For example, at the University of Illinois:

*The involvement of University students or employees in the outside professional activities of an academic staff member can be beneficial. However, such involvement must be disclosed, reviewed, and approved in writing by the unit executive officer in advance to assure that exploitation or unreasonable interference with University duties and responsibilities, including course and thesis work, does not occur. Students and staff involved in these outside professional activities shall be made fully aware of the circumstances, University policy regarding these activities, and the precautions instituted by the academic staff member and the unit executive officer in its regard. Additional situations of concern include those that might prejudice an academic staff member with respect to judging other staff in issues of rank, pay, and tenure by virtue of collaboration in outside activities. The unit executive officer may need to implement appropriate monitoring depending on the facts of specific cases.*

For more information, please refer to <https://research.illinois.edu/compliance-safety/conflict-commitment-interest>



In addition, the University has criteria regarding managing conflict with start-up endeavors by faculty and staff. For example, a Conflict Management Plan must be developed if an employee-owned start-up meets any of the following criteria:

- Licenses university intellectual property
- Employs university students or other university employees
- Uses university resources, such as laboratory space or equipment, office space, or computing resources

A Conflict Management Plan includes guidelines regarding students, such as:

- Student involvement must be disclosed.
- There must be a threshold placed on hours to be worked.
- Careful logs must be maintained on both sides.
- Students must receive a letter providing them a contact outside the unit for advice and support if the student expresses concerns.
- An academic/faculty adviser must undertake additional oversight of student's degree progress.
- Student must not be supervised at a start-up company by their faculty adviser.
- Split appointments (between company and laboratory) are rarely approved.

After this information session and perhaps a brief discussion, the moderator will then give the group instructions and an overview of the procedures for the role-play.

1) Materials should have been copied in advance on different color paper, so the roles are easy to distinguish. For example, the professor role might be on blue paper, the student on yellow paper, and the observer role on green paper. **Participants know only what is in their own roles, and have no information on what is in the other roles; that comes out as the session proceeds. Decide in advance whether you will be distributing the discussion starters with the roles. If you are, the discussion starters for each role (and only that role) should be on the same color paper as the role.**

2) Ask participants to divide into groups of two (professor/administrator and student) or three (professor, student, and observer). Each group must have one each of the two main roles (professor/administrator and student).

3) Announce that everyone will start together and end together. (This keeps the noise level down while directions are being given.)

4) When partners have been selected, hand out the roles and discussion starters. Participants are not obligated to use the discussion starters; they are provided to make the exercise less daunting, and many people find that they help.

5) Verify that every group has two or three people and that each one has a different color paper.



- 6) Ask participants to leaf through their materials: each should have role information and a role-play starter. Again, as mentioned in point (4), using the role-play starters is optional, not required.
- 7) Announce the amount of time available. 10-15 minutes is plenty of time for these short scenarios.
- 8) Provide a bit of time for individual preparation. Suggest that participants make notes of what you want to find out, and what your first sentence will be.

### ***Optional step:***

If time and space permit, it can help focus the role-plays and make sure all aspects of the scenario are covered if you verbally review the key points of the scenario and the participants' role. To do this, take one group — all of whom are playing the same role — out into the hallway and keep the other together in the classroom. If there is only one discussion leader, appoint one member of one of the groups to read the role information aloud to the group while the discussion leader works with the first group. When the leader completes briefing the first group, that person should leave that group to discuss the role among themselves and go repeat the process with the second group and answer any questions that second group might have.

- 9) Start the role-play. Walk around the room, listening to various groups to get a sense of topics discussed and how the activity is proceeding. Stop the process after it appears that most have exposed the main dilemma and have spent a little time talking about how to approach it.
- 10) Make sure at the end of the session that participants receive the “Resources” sheets as a take-away handout.

### **Discussion (30-45 minutes)**

After the role-play the moderator should lead a discussion. Follow the discussion guidelines provided following the role-play. It's also useful to plan for a few concluding remarks at the close of the session to consolidate the discussion.

### **Tips for Leading Discussions**

Opening questions and guidelines for leading a discussion are provided below.

- After the role-play, discussion usually takes off on its own in light of the experience. However, if no one speaks right away, don't worry.
- After you ask the opening question, let at least 10 seconds go by to give people a little time to volunteer. When you are at the front of the class 10 seconds feels like eternity, but that amount of time allows participants to begin to gather their thoughts and work up the nerve to respond.
- If the discussion is really lagging at any point, a useful technique can be to ask participants to discuss whatever the proposition is with their neighbors. This “buzz groups” approach can build up enough confidence that people will start talking.



## Discussion

### Role-Play Discussion Guidelines: Moderator

#### **General questions to ask:**

After the role-play is over and the groups come back together, ask the participants what was going on in this interaction.

Work to elicit the whole story, by alternately asking those who played each role what their concerns were:

- For those playing the student, what were their concerns and how they understood the situation?
- Ask those playing the faculty member, what were their concerns and how did they understand the situation?

Then summarize for the group the essential facts of the two main roles. It can be helpful to make a two-part list on an overhead or chalkboard while you are eliciting information, noting the concerns of the faculty member and the concerns of the student.

If there were recurring themes in the groups you picked up while the role-play was under way, work those into your discussion. Ask the group how closely the two versions that emerged in discussions match. If they do align, what was the most helpful in eliciting information and establishing trust, leading to a useful and constructive discussion? If they do not match (you may have some groups in each category), what kept the two versions from aligning? Was information missing? What kept it from coming out?

#### **Other general questions to ask:**

- What were the most helpful things that were said?
- What do people on each side wish the person on the other side had asked or said?
- Should the student proceed with a complaint or just let this drop?
- What is likely in either scenario?
- Is this something that the grad studies director *can* let drop?
- Is there a good outcome to this situation?
- What elements might make it more or less likely to come out well?
- What could the student or the adviser have done earlier to change or prevent the current outcome?
- What should the graduate studies director do next; what are the director's responsibilities, if any?



If you had any observers, ask them what they saw going on; see if anyone picked up signals the participants missed. What were they? What difference might it have made if the missed signal had been caught? Ask the group to identify the issues that are presented in this role-play. Who should take the next step here? Why?

Specific questions to ask:

- What are the issues in this situation?
- What options does the student have? How realistic are they?
- Why did the student discuss this with the grad studies director instead of first directly with the adviser? Was this a good or bad choice? Why? What are the issues and considerations?
- What should the director do next? What should the student do next?
- Who needs to take the next step?
- Was there something that could have been done earlier to head off problems?

### **Principles that apply to authorship and attribution:**

#### *Personal Integrity*

In order to remain honest and trustworthy, a faculty member must:

- refrain from using University resources (computer time, staff time, or supplies) for the start-up company.
- not neglect university duties of teaching and research.
- make sure students are not overburdened by work not directly connected to the research needed for a degree.
- make sure students have an independent adviser to go to when concerns arise.

#### *Public trust*

- The faculty member must make sure that grant money is spent properly.
- Public resources must not be diverted for private gain.
- Institutional resources, likewise, must not be diverted for private gain.

#### *Transparency*

People, meaning researchers, faculty, and students, should be comfortable seeing their activities on the front page of a newspaper. If they are not, that suggests the need to examine the situation for a conflict of interest.

#### *Prepare for worst-case outcomes*

No one expects to experience a conflict of interest, but by putting safety measures in place automatically, when and if problems do arise there is a mechanism to address them.



### **Close by telling the end of the real-life story on which this role-play is based.**

The graduate studies director heard and understood the concerns of the student in the situation. Seeing how worried the student was about maintaining good relations with the research adviser, the graduate studies director took a low-key approach to raising issues. The director discussed the matter quietly with the department head. The head then convened a meeting of the conflict oversight committee for the research supervisor's company. The committee decided that split appointments for the students was not a good idea, especially after learning that a large number of students proposed to hold them. The committee was especially concerned about those striving to finish their degrees. Instead, the committee required that the company hire a full-time employee to perform the tasks originally assigned to some of those students with split appointments. The oversight committee set up a system for one person to meet more often with each affected graduate student. The committee presented these safeguards to the professor as a way to protect against later difficulties with students. The professor accepted these safeguards, especially after seeing widespread negative news coverage about a faculty member in another state in a similar situation. It must be acknowledged that these stories do not always end as well as this one did, especially if no conflict oversight committee exists or one is not active.

## Bibliography/Resources for Participants

### Resources

#### Role-Play Summary

This faculty adviser in this role-play has a major conflict of interest, which puts the student in an awkward situation. If the conflict oversight committee hasn't contacted the student already (an unfortunately common situation), they should have. In an ideal situation, every student affected by a potential conflict of interest should have some written guidance about what to expect and how to get advice if concerns arise.

One useful step is to find out if there are any written policies or guidelines about what students can expect in situations like this: for example, is there a meeting annually or every six months with the oversight committee or is a student simply informed about the option to contact the committee? Does the committee monitor students' progress? The University's interest here should be in assuring that the split interests of the faculty member do not adversely affect the progress of students.

One reason for the student to talk with the grad studies director first is that, if the student first meets with the adviser, the meeting might not go well (for example, the adviser gets annoyed at being questioned). This role-play can help the participants learn how to explore their options without making enemies. What would be appropriate to mention and what would not? What questions could the student ask that would be helpful and constructive?

A conflict of interest can arise whenever a person is in a position to influence university decisions in a way that provides or might provide personal financial benefit to the individual or members of his or her

family. Conflicts of commitment, on the other hand, generally concern allocations of time and can arise whenever a person's external commitments (whether or not compensated) interfere with the ability of





the person to fulfill his or her employment obligations fully. Dilemmas like these often arise in situations where startup companies are formed to commercialize the results of more basic university research projects. The student is afraid that much of the work for the company will not advance his/her research, but feels compelled to do the work since next semester's assistantship money will be split between the company and the adviser's research lab. The student does not feel comfortable raising these concerns to the adviser.

Universities, and departments, are obligated to protect graduate students, post-docs and other employees in these situations. In an ideal circumstance, the University will have 1) reviewed all proposed arrangements according to prevailing national standards for propriety; 2) determined the arrangements to be in the best interests of the University and all University participants, including the students; and 3) established an ongoing review mechanism to oversee the arrangements and assure that their operation matches the written agreements made at the outset. At minimum, there should be a written and legally binding contract between the University and the company/faculty member setting out the acceptable boundaries of all activities. There are also often contracts in place to govern intellectual property rights and licensing.

Graduate students in such situations should know their roles and rights. Ideally, there should be a conflict oversight committee and a member of that committee should meet individually at least annually with each student in the lab at who is affected by this situation to maintain open lines of communication.

### **Resources on Conflicts of Interest**

American Chemical Society

<http://pubs.acs.org/instruct/ethic.html>

Davis, M., & Stark A. (2001). *Conflict of Interest in the Professions*. New York: Oxford University Press.

Gunsalus, C. K., & Rowan, Judith (1989). *Conflict of Interest in the University Setting: I know It When I See It*, *Research Management Review*.

Gunsalus, C.K. & Rowan, Judith (1989). *You and the Big U: Protecting your interests and your name; conflict of interest considerations in spin-off licensing*. Presented at conference at Virginia Tech University.

University of Illinois Policy on Conflict of Commitment and Interest

<https://research.illinois.edu/compliance-safety/conflict-commitment-interest>

### **Responsible Conduct of Research Resources**

Columbia University

<http://ccnmtl.columbia.edu/projects/rcr/>





Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, *On Being a Scientist: Responsible Conduct in Research*, National Academy Press, Washington, D.C., 2nd ed., 1995.

<https://nap.nationalacademies.org/read/4917/chapter/1>

Gunsalus, C. K. (1998). How to blow the whistle and still have a career afterwards. *Science and Engineering Ethics*, 4, 51-64.

ORI Introduction to the Responsible Conduct of Research,

[http://ori.dhhs.gov/publications/ori\\_intro\\_text.shtml](http://ori.dhhs.gov/publications/ori_intro_text.shtml)

Online Ethics Center, National Academy of Engineering

<http://onlineethics.org>

Research Ethics Modules, North Carolina State University,

<http://www.fis.ncsu.edu/Grad/ethics/modules/index.htm>

Macrina, F. L. (2005). *Scientific Integrity: An Introductory Text with Cases* (3rd ed.). Washington, D.C.: American Society for Microbiology Press.

Shamoo, A. E., & Resnik, D. B. (2003). *Responsible Conduct of Research*. New York: Oxford University Press.

## Role One with Starter

### Director of Graduate Studies Role

*What follows is an outline of your role. You will need to improvise to some extent – be creative but try to stay within the bounds of what seems realistic.*

You are a faculty member who has been serving as your department's director of graduate studies for about a year. You have a meeting coming up with a student in the lab of a high-profile colleague. The meeting is a routine progress check. The student is almost finished with the program and will be looking for jobs soon. You have only had one other meeting and you don't know this student very well, so you have not established a strong relationship yet.

The student's adviser has recently started a new company to commercialize the technology created in the lab. There has been a lot of publicity on campus about this new company. The University encourages commercialization because it helps connect the University to the business community. Startup companies like this one also help demonstrate how faculty members' inventions are fueling economic development in the state. The University often reduces professors' teaching loads and service activities while they establish these types of companies. The job of a professor can be complicated enough without running a business at the same time.

Despite these positive aspects of such startups, many of your colleagues have expressed concern to you about impediments to the graduate students' progress when faculty members have split interests. Some graduate students have recently been taking more time to finish their degrees than has been typical in the past. Also, more students are leaving the university before finishing their degrees. You know that there is a conflict oversight committee responsible for making sure that these businesses are managed correctly, but this committee focuses on issues from the professor's perspective.



The student's funding next semester will be split between a university research assistantship and duties at the adviser's startup company. Because you are concerned about split appointments from the graduate students' perspective, you want to ask questions about how the company's work is affecting this student's progress. You don't want to sound like you're checking up on your colleague or prying. You just want to make sure that the student will finish on time.

#### Director Role-Playing Notes:

- The student does not know you that well yet
- You believe that the student is making good progress
- You want to discuss possible conflicts for graduate students when their professors also have companies
- You are concerned with graduate student progress and development
- The university really supports professors' startup companies

#### Plan for your meeting:

- Write questions that you will ask the student
- Follow-up questions that you might ask
- Questions that the student might ask you, and your answers

#### Starting the Role-Play

**Director:** Hi ...how are you doing today?

**Grad Student:** I'm doing all right ... just a little stressed with all that is going on ... but I guess that is typical for grad school.

**Director:** Yes, I see a lot of stressed-out students ... Let's see if we can plan some things out ...I've always found that having a good plan helps reduce stress ...

**Grad Student:** That sounds good ... what do you want to start with?

**Director:** Well, how about with your research ... it looks like you are on schedule with all your required work ...How is your thesis research progressing?

**Grad Student:** It's going well enough ... I think that I should be able to get it done ... as long as I have enough time during the next year to work on it ... given my other responsibilities ...

**Director:** That's always an issue when you are finishing up ... I see that your funding is going to be split between research in your lab and work in your adviser's company ...

**Grad Student:** That's what I was told ... everyone seems so excited about this new company and the chance to make extra money ...



**Director:** I know that the administration is working to promote these kinds of companies ... Are you excited about the company too?

## Role Two with Starter

### Graduate Student Role

*What follows is an outline of your role. You will need to improvise to some extent – be creative but try to stay within the bounds of what seems realistic.*

You are an advanced graduate student going into the last year of your thesis research. Your relationship with your research adviser is more complicated than usual. You are connected through your work and school, and your adviser's family owns the building where you live. You didn't realize who owned the building when you moved in. Everything was fine until you started having problems with the maintenance company. They never fixed the dishwasher and suggested that you did not need it. You are not happy with this, but you don't want to talk about it because you have heard your adviser complain about "whiny" tenants.

Your research adviser has also told you that your appointment for next semester will be split between your university research assistantship and duties at your adviser's startup company. In your department, the faculty members generate the money and assign students to funding, so you are not sure if this is something you could negotiate with your adviser. You are not the only student who has been told to expect a split appointment. You also know that your adviser's administrative assistant is going to be working for the company on evenings and weekends for extra money.

The technology marketed by the company is related to your thesis research. You are uncomfortable because you are uncertain of the boundary between research and business. You really want to get your degree on time, start earning a real salary, and pay off your student loans. You are concerned that your duties at the company will be routine, boring, time consuming and will keep you from making progress on your thesis project.

The startup company operates out of your adviser's office and research laboratory. The company has a federal Small Business Innovation in Research (SBIR) grant that involves subcontracting a portion of the work back to the university lab. You attended an ethics presentation that mentioned the University's conflict of interest rules, and you wonder if these rules may apply to your adviser's startup company. Your adviser doesn't like being questioned and expects directions to be followed. For example, when the company was just starting, you asked about how to charge company expenses from the department's storeroom. You were told to sign for the supplies on your research account, like you've always done. You don't know anything about the specific business arrangements, but you wonder if this procedure is correct.

You have an appointment with the department's director of graduate studies for a routine check on your academic progress. You want to talk about your concerns with your work at the company, but you don't want to cause trouble.

### Graduate Student Role-Playing Notes:

- You want to know how to keep your research on track so you can graduate on time



- You don't want to sound like a whiner or complainer
- You want to maintain good relations with your adviser
- You are worried about the proper use of university resources within the company

Plan for your meeting:

- Write questions that you will ask your the program director
- Follow-up questions that you might ask
- Questions that your adviser might ask you, and your answers

### Starting the Role-Play

**Director:** Hi ...how are you doing today?

**Grad Student:** I'm doing all right ... just a little stressed with all that is going on ... but I guess that is typical for grad school.

**Director:** Yes, I see a lot of stressed-out students ... Let's see if we can plan some things out ...I've always found that having a good plan helps reduce stress ...

**Grad Student:** That sounds good ... what do you want to start with?

**Director:** Well, how about with your research ... it looks like you are on schedule with all your required work ...How is your thesis research progressing?

**Grad Student:** It's going well enough ... I think that I should be able to get it done ... as long as I have enough time during the next year to work on it ... given my other responsibilities ...

**Director:** That's always an issue when you are finishing up ... I see that your funding is going to be split between research in your lab and work in your adviser's company ...

**Grad Student:** That's what I was told ... everyone seems so excited about this new company and the chance to make extra money ...

**Director:** I know that the administration is working to promote these kinds of companies ... Are you excited about the company too?

### Observer Role

- Read both roles on the following pages.
- Watch the interview and take notes.
- If the conversation appears to be stopping early, encourage discussion on topics that still haven't been addressed.

What is the student trying to convey?



What is the professor trying to achieve in this meeting?

Did the student “read” the signals from the adviser well? What cues did you see?

Did the professor “hear” the student well? What signals of this were there?

What questions do you think could/should have been asked that were not? What do you think could have been said that was not?