

Responsible Conduct of Research

Role-Plays

Whistle-blowing

Professional Relationships

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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.

Note to Moderator:

After the workshop participants should receive as a handout the section labeled “Resources.” That section also includes a summary of the role-play.

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 (3-5 minutes)

After introducing the technique, we give the group instructions and an overview of the procedures.

- 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, but it does make the exercise less daunting for many.
- 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. Using the role-play starters is optional, not required. They are provided to help those who need a little guidance to ease into the role-play.
- 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 finishes

briefing the first group, leave that group to discuss the role among themselves and go brief the second group and answer any questions they 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.



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 did they understand the situation?
- Ask those playing the faculty member what their concerns were and how 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?
- What should the department head do next? Can the department head let this drop?
- What's likely to happen if the head takes those steps?
- Should the student proceed with the complaint or just let it drop?
- What is likely in either scenario?
- 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 department head have done earlier to change or prevent the current outcome?
 - The student is uncomfortable having dinner alone with the professor. Mentors sometimes share meals with students, however, because mentoring is both a professional and a personal relationship. In its personal aspect, what kinds of contact would be acceptable? What would be unacceptable? For what reasons?

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.

Ask for hypotheses about what might be the underlying “truth” in this situation. Try to get the group brainstorming about different possibilities, rather than simple black-and-white interpretations.

Ask what issues are presented here. Discuss the policies that apply (tailor this discussion based upon the local policies at the institution or in the department where the workshop is taking place).

Principles that apply to whistle-blowing:

- Data should be collected carefully and stored securely.
- Compliance obligations relating to funded research and financial reporting also should be carefully collected and kept.
- Whistle-blowing, which refers to reporting suspected misconduct, should be done in a cautious and responsible way.
- Ideally, whistle-blowers should never be afraid to come forward with questions of misconduct, as they should be supported by their institutions and fellow researchers. However, there are many reasons why someone would want to avoid bringing forward an allegation of misconduct.
- Whistle-blowers (even the term has negative connotations) risk their future careers, reputations, and often experience psychological distress, among other possible negative consequences.

If time permits, go through the steps in “How to Blow the Whistle and Still Have a Career Afterwards” (Gunsalus, Science and Engineering Ethics). Has the student taken every reasonable precaution?

Real Story

Close by telling the end of the story in the real-life situation on which this role-play is based: Briefly, it was the financial discrepancies — charging the grant for four technicians when only two were hired — that unraveled the whole situation. Without that, no one really would have been very inclined to listen, but once those came to light, they did look and found many problems, including data fabrication. All the adviser’s students were moved to another adviser; the faculty member left the university. However, even with full disclosure about the problems, a medical school hired him and he’s still doing research today.

RESOURCES

Role-Play Summary

This role-play focuses on a whistle-blowing scenario involving data management issues in a research lab, complicated by uncomfortable personal relationships. Whistle-blowing involves raising concerns or allegations of wrongdoing or misconduct. There is an obligation for whistle-blowers to do so in good faith, which means based on reasonable belief or facts. Suspecting that someone has engaged in research misconduct is one of the most difficult situations researchers face. This is especially true when relationships are strained for other reasons.

If you have the suspicion of research misconduct, the possible consequences for all involved can be serious. To handle the situation responsibly and in the best possible manner for your career and the other people involved, you should move deliberately and carefully.

Universities are required by the federal government to have procedures for protecting whistle-blowers against retaliation and for reporting misconduct. Inform yourself not only of the formal rules (see your university's policies) but you should also inform yourself of the informal rules for having a dispute in a professional manner while protecting yourself and your career. See the paper on how to report research misconduct and still have a successful career afterwards (Gunsalus, 1998). Also, any paper discovered to have incorrect information should be retracted and errata should be issued for the benefit of other researchers.

Real Story

In the first meeting, the department head didn't really listen to all the student's concerns and sent the student to talk personally with Professor Barton. The student did not do this because of reluctance and fear. It was only when a departmental business person noticed the discrepancy in actual personnel versus the staffing being charged to the grant that the department head became more involved. The department head called the student back in and learned the full extent of the student's concerns. At that point, the department head asked the graduate studies adviser in the department to interview each student in the group individually and discovered that other students had similar concerns.

Although there was tremendous concern about doing so, the department head eventually initiated an academic integrity inquiry, which resulted in an investigation. Professor Barton was found to have fabricated research results and resigned rather than go through the end of the process. The findings were reported to the federal funding agency. The students in the lab were all placed with other advisers and completed their degrees, although the intervening period was difficult for all.



Whistle-blowing Resources

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

University of Illinois Office the Vice Chancellor for Research
<http://www.research.uiuc.edu/ai/>

Office of Research Integrity
<http://ori.dhhs.gov/>

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.
<http://www.nap.edu/readingroom/books/obas/>

ORI Introduction to the Responsible Conduct of Research,
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.

North Carolina State University Open Seminar
<http://openseminar.org/ethics/screen.do>

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



Department Head 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 the head of a science department. Two years ago you recruited Dr. Barton to your department to enhance its prestige. A full professor at age 39, Barton serves on several prominent national committees. Barton has a wonderful sense of humor and contributes to the collegial environment in the department. Barton brought substantial funding to the department and has received further grants since arriving. Barton now has a large laboratory with many graduate students and has a reputation for devoting a lot of time to students. You have heard that students are often invited to Barton's home for dinner.

A relatively new graduate student has made an appointment to see you. Your administrative assistant told you that the student seemed upset and asked for a copy of the university's misconduct policy. You are especially concerned because the student is coming to see you after only a short time on campus. You hope that this is not another student who complains about minor matters. These students take an inordinate amount of your time and energy.

You plan to see whether you can persuade the student to focus on research work. You have a standard talk to direct students' attention back to their research. Although you expect that the student will complain about a minor problem, you take your job as department head seriously. Because you are responsible for the department's reputation for integrity, you must make an accurate judgment about the student's situation. If the student does bring forward a legitimate issue or wants to make a formal complaint, you will have to act on it. However, because you know most of these issues turn out to be minor, you are hoping to avoid this.

Department Head Role-Play Notes:

- ✓ Dr. Barton is an important and valuable member of your department
- ✓ In the past students have complained about minor matters
- ✓ Dr. Barton has a reputation as a good adviser
- ✓ You need to balance the various interests involved whenever you handle student complaints

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

Department Head: *Hello ... You asked to have a meeting with me?*

Grad Student: *Yes ... I think that you are the person I am supposed to talk to ...*

Department Head: *I do handle a number of issues in my role as department head ... What exactly are you worried about?*

Grad Student: *Well, I have some concerns about the work in Dr. Barton's lab ...*

Department Head: *There is some great work being done in that lab ... sometimes work in graduate school is a little different than you expect coming in ... Has that been the case for you?*

Grad Student: *It hasn't been exactly like I expected ... but my concern is about some of the results that I have seen published ... they are not the same as what I have found in the lab book for the project ...*

Department Head: *Small oversights happen fairly often in research ... What did Dr. Barton say that you should do about this?*

Grad Student: *I actually haven't talked to anyone else about it yet ...*

Department Head: *This sounds like a matter that should be handled within the lab ... Dr. Barton should be able to help you out with any issues ...*

Grad Student: *I don't really feel comfortable with Dr. Barton right now ...*



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 a relatively new graduate student, and you were pleased to receive an assistantship in the laboratory of Dr. Barton, a young star in your field. You are flattered by Barton's interest in your work. You have often gone out for a drink to talk about research with him, and other students have frequently participated in these discussions.

A few months ago, Barton invited you to dinner on a Saturday evening. You were surprised to find that you were the only guest. After dinner, Barton said that he would like to “get to know you better” because you had much in common. Barton wanted to discuss a particular problem in his personal life, but that topic made you uncomfortable. Because you worried about a change from purely professional relationship to a more personal one, you deflected the conversation to work-related topics. For the rest of the evening, you and Barton talked only about work. Subsequently, however, Barton asked you to do other things with him privately. To avoid Barton, you began to distance yourself from the lab.

You recently saw a paper published by Barton that included a graph based on one of your experiments, but the graph did not fit the data you had obtained. Devastated by a possible mistake, you checked and rechecked your records and calculations. You are positive that the published material is wrong. Because of recent personal interactions, you are uncomfortable asking Barton about the graph.

You have also noticed that on an interim report to a funding agency, Barton claimed that there were four lab technicians working on your project. For the time you have been in the lab, there have been only two technicians.

When you attended your department's annual ethics training event, you learned that you can discuss these problems with the department head. You have made an appointment with the head.

Student Role-Playing Notes:

- ✓ You are really concerned about the accuracy of the published draft and the interim report
- ✓ Dr. Barton's interest in you has strained your professional relationship
- ✓ You are concerned about how you will appear to the lab
- ✓ You do not want to upset or accuse people needlessly

Plan for your meeting:

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

Starting the Role-Play

Department Head: *Hello ... You asked to have a meeting with me?*

Grad Student: *Yes ... I think that you are the person I am supposed to talk to ...*

Department Head: *I do handle a number of issues in my role as department head ... What exactly are you worried about?*

Grad Student: *Well, I have some concerns about the work in Dr. Barton's lab ...*

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Grad Student: *I actually haven't talked to anyone else about it yet ...*

Department Head: *This sounds like a matter that should be handled within the lab ... Dr. Barton should be able to help you out with any issues ...*

Grad Student: *I don't really feel comfortable with Dr. Barton right now ...*

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?

