

RCR Casebook: Research Misconduct

<p>This is a 2-person role play involving a doctoral student and his/her mentor. In preparation for submitting a grant proposal to the funding agency, the doctoral student reads the proposal prepared by the mentor and believes that the mentor may have altered the data to improve his chances of being funded. It contains the option of an additional preparatory role play involving the student's consultation with a former professor from undergraduate studies</p> <p>Roles</p> <ul style="list-style-type: none">• Student• Mentor• Former Professor (Trusted Other) <p>Note: Role players should use their own names.</p> <p>Scenarios</p> <ul style="list-style-type: none">• Scenario One: Student Discussion with Mentor• Scenario Two: Student Discussion with Former Professor (Trusted Other)	<p>Role Play Tips</p> <ul style="list-style-type: none">• Detailed role descriptions and prompts are provided to guide the role play. This is not a strict script. Encourage role players to familiarize themselves with their characters and get creative!• Encourage role players to use their actual names in place of character names.• Experiment with changing the prompts to inject some variability in role play dynamics (e.g., have a character offer a conciliatory opening line or a belligerent opening line to see how that changes the course of the role play).• Run a role play more than once, changing role players.
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Role Play: Student Role Guide

Character Description: The Student

You are a 5th year doctoral student of the professor. You are in what you hope will be your last year of doctoral work, or nearly so. You are struggling to produce an important paper that is your dissertation, and are concerned that your research with Professor is not proving as successful as you had hoped. This is very disappointing because your research assistantship does not provide full support of your living expenses, and your entire extended family has scraped together every cent they have to put you, their brilliant relative, through graduate school. Both of your parents are in poor health. You have looked forward to getting your PhD and getting full employment, so that you can support them and yourself. You are wondering what you are going to do if your current work does not provide the kind of results that will be publishable and serve as an acceptable dissertation project.

As always, you want to discuss these problems with your professor. You go to your professor's office. It is late, but the light is on and the door is open. Your professor is not there, though. You go in to wait. You can see his draft of the next grant proposal on his desk. Figuring it would be better to spend the

time proofreading the grant proposal than sitting around twiddling your thumbs, you begin reading and are horrified to discover that the part with the data you gathered has been doctored to show the results you had hoped for, not the results you have, in fact, found. You are upset beyond belief and don't know what to do. Feeling compelled to do something, you jot a note to your professor saying that you need to have a conversation as soon as possible, and leave the note on the desk beside the proposal you've been proofing. At home, you toss and turn, unable to sleep, trying to decide what to say to your professor when you next meet.

Role Play: The Mentor Role Guide

Character Description: Mentor

You are an Assistant Professor who is regarded as a good performer in your field. You spend a lot of time mentoring your students, and believe that they look to you as a role model. You count on your spouse and children to keep you balanced against the pressures of work and your many emotionally needy students, especially the 5th year doctoral student who is something of a perfectionist and is taking forever to finish up his data analysis for the grant proposal you are ready to submit. This grant is very important to your promotion and tenure. Unfortunately the work you are doing on your current grant is not yielding the unambiguous support for your theory that you had hoped for, so you put in many more hours running a different set of trials that may be the key to the findings you need to support your next grant proposal. You do not enjoy the exhausting 20-hour days, or the stress on your family life that this involves. Nevertheless you complete this additional set of trials and sometimes sleep in your lab. You apply pressure to your doctoral student to hurry up and give you the numbers you need.

Suddenly, in the midst of all this, your spouse leaves. Your spouse is also asking for extensive child support and alimony since you are the primary breadwinner. As well, your spouse insists on immediate division of all your property, meaning that you will move out into a small apartment at a time when your personal needs for comfort and convenience are staggeringly great. You experience enormous emotional upset, and even when you find time for sleep, sleep doesn't come. You begin to see a clinical psychologist who provides you with sleeping pills and other medication. These not only provide no relief, they create horribly frightening fantasies. Your life is spinning out of control. You look at the nearly finished grant proposal that awaits just the data analyses that would give you a very powerful proposal...the data analyses that are not turning out. At the end of your rope, you revise the data you have and enter the desired results into the proposal. You just need to put a few more finishing touches on the proposal and give it to your Sponsored Projects Office to submit. You leave the proposal on your desk and stagger off to get a little sleep, forgetting to lock your door. When you return to your office early the next morning, you find a note on your desk from your doctoral student, who, you see, has been jotting edits on your proposal. The note says that you two must meet—there is something wrong with the datasets you've got in the proposal. You feel a surge of panic, wondering what on earth you will say.

Role Play: Former Professor (Trusted Other) Role Guide

Character Description: Former Professor (Trusted Other)

You are the doctoral student's favorite professor from undergraduate studies at a nearby research university. The doctoral student has contacted you via email and then by phone to discuss a matter that

has recently come up in his/her present research. You have been in regular contact with the doctoral student throughout his/her education and know that s/he is very close to finishing the Ph.D. (in the fifth year of study). You also understand that the doctoral student's parents are ill and consume much of his/her time and financial resources. You know for a fact that the student is a hard-working individual, but like many others has numerous external pressures to finish the degree program and establish himself/herself in the academy. You are worried about the matter which s/he wants to discuss. You do not know the doctoral student's mentor personally but have heard from others that s/he is a highly respected individual; collaborating researchers and the doctoral student himself have only said positive things to you about the mentor's incredible work ethic and how s/he seems genuinely concerned about the welfare of his/her graduate students. You are unsure what to think as the doctoral student comes to you in a panic over what s/he saw in the grant proposal. You have agreed to meet in-person but remain neutral about what exactly to believe since this seems out-of-character for the mentor to act in such a brash, dishonest manner.

The following are the kinds of questions an insightful "confidant" might ask:

- Do you know for sure that your mentor has falsified your data? If you have to prove your assertion, how will you do that?
- Why do you think the mentor would do this?
- What would happen to you if you confront the mentor directly? Can you think of ways to open the discussion by asking questions rather than making accusations?
- What would be the best outcome of this discussion that you can imagine?
- What would be the worst outcome?
- Do you think you should report your suspicions to the department chair or the research integrity officer? Do you think you should do this before or after speaking with the mentor?
- What is the worst thing that could happen to you if s/he is fired?

Scenario One

The doctoral student shows up at the mentor's office the next morning.

Prompt One

Mentor: "Come in, come in, I think we need to clear up this little misunderstanding. The data you saw in here were slightly altered, but only to illustrate a sample with sufficient power to support our hypotheses. Those data were never meant to be included in the final grant proposal."

Student: How do you respond?

Alternative Prompt

Mentor: "Well, thanks for coming in. You sounded upset in your note, so let me put your mind at rest. I decided not to use the data you gave me, which were trash. I re-ran the tests myself with the raw data I had and came to very different conclusions."

Student: How do you respond?

Scenario Two

The doctoral student contacts a professor from undergraduate studies, someone that s/he respects and trusts. The student has suggested that s/he suspects research misconduct by his/her present mentor, someone that the doctoral student admires and wants to impress. The trusted professor has agreed to meet with the doctoral student in his/her office to discuss the matter.

Prompt

Student: "Thank you for agreeing to meet with me. It's a private matter. I wanted to talk to someone I trust before I take this to the department chair. I think my research results were altered on a grant proposal that is about to be submitted so that the results favor my mentor's hypotheses. But s/he knows they're not correct. What should I do? If I say something, I risk losing my assistantship just when I'm so close to finishing my degree? But if I just pretend I didn't see the altered results, then I risk my reputation and integrity as a scientist."

Professor (trusted other): How do you respond?

Take Away Point

- In research, changing data so that they are not accurately represented is called falsification. Falsification is a type of wrongdoing in research and is considered research misconduct. Research misconduct in federally funded research is a federal crime and can be punished with severe fines, loss of funding eligibility, and even imprisonment.

References

DuBois, J., Sieber, J., Bante, H., & Partin, K. (n.d.). RCR Casebook: Stories about Researchers Worth Discussing. Retrieved November 7, 2019, from <https://ori.hhs.gov/rcr-casebook-stories-about-researchers-worth-discussing>.