

**APPENDIX C .3.A  
FACULTY INTERVIEW PROTOCOL**

**Office of Research Integrity**

**Research Mentoring Dyad:  
Comparing the Views of Faculty Advisors/Mentors and Their Ph.D. Students  
on Training/Learning to Be Responsible Researchers**

**FACULTY INTERVIEW PROTOCOL  
SUMMARY OF KEY TOPIC AREAS**

**1. Background Information**

**Goal: Find out how faculty describe what they do and their research interest to get a context for doctoral students training and education.**

This faculty member overview will get information on:

- His/her field of study
- Current research projects
- Lab experience—including lab responsibilities, management, and supervision
- Working with doctoral and postdoctoral students
- Background on doctoral/postdoctoral research projects and faculty involvement/ supervision

**2. Overview of Student Advising/Mentoring**

**Goal: Find out how faculty describe what they do (their responsibilities) to educate and train doctoral students.**

Key information to get on this topic:

- List of specific responsibilities and activities related to doctoral students

**Goal: Identify differences, if any, in perceptions of advising and mentoring activities and responsibilities.**

Key information to get on this topic:

- Whether school assigns doctoral students a person specifically called an advisor and/or mentor
- Faculty member’s description of his/her advising/mentoring approach
- Identify how faculty member achieves each of the following:
  - Helps students define/develop a researchable question
  - Monitors doctoral students’ research progress
  - Provides training in research ethics and responsible conduct of research (RCR)
  - Assists students with research presentations at professional meetings
  - Assists students with publication of research

**Goal: Get a description of how faculty and doctoral students connect and build an advising/mentoring relationship**

Key information to get on this topic:

- Description of how faculty member/student are paired
- Description of explicit or implicit goals, education experiences, and other goals (if any), and how they are agreed upon with each student
- Identification and description of the most successful student experiences (those that “clicked” with student) and those not as successful

### 3. Institutional and Departmental Guidelines and Resources

**Goal: Identify resources faculty and students do/do not have available as a context or support for advising/mentoring and RCR education.**

Key information to get on this topic:

- Find out what, if any, mentoring/advising and RCR information the institution and/or department provides for faculty and students.
- If faculty have either resource, identify the usefulness of this information.

### 4. Responsible Conduct of Research

**Goal: Summarize how faculty describe outcomes of student training/experience with research ethics and RCR.**

Key information to get on this topic:

- Faculty assessment of students' appreciation and understanding of researcher responsibilities related to RCR and research ethics training and education
- Faculty examples of students' application of RCR and research ethics training and education.

### **INTERVIEWER OVERVIEW:**

*Note: Protocol convention is for text read to the respondent to be in small letters and interviewer instructions to be in all capital letters.*

The following information is for the interviewer. It summarizes the guidelines and materials covered in training that will be used to conduct the interview.

- The interview will be framed as a discussion for faculty members to describe their interaction with the Ph.D. students for whom they are considered to be an advisor/mentor. The primary goal of the interview is to learn how the faculty member views the research training process. We want to determine how/if faculty prepare Ph.D. students to be responsible researchers and what they identify as their goals for successful outcomes for a Ph.D. student's graduate education.
- Faculty selected for these interviews have completed the ORI Faculty Survey and have agreed to a follow-up interview. In the protocol, faculty are noted as the respondent: "R."
- Information from the responses to the ORI Faculty Survey will be used to prepare a faculty profile. The faculty profile will be used for background information before the interview and, as needed, to guide probes for clarification during the interview.

The profile will contain information such as the following from the questionnaire responses:

- Faculty role (A3)\*
- Faculty/student pairing (D1)
- Activities with students (B7)
- Student outcomes (C3)
- Institutional/departmental guidelines (D3)
- Institutional/departmental rewards (D14)

Personal Characteristics

- Age (G11)
- Gender (G12)
- Country of birth (G7)
- Race (G10)
- Year of most recent degree (G6)
- Field of study (from screening interview)

*\*Note: Interviewer will have information from the questionnaire and from the recruitment/confirmation contact on faculty preference for advisor/mentor. We will not repeat back what faculty member reported on the questionnaire. We will discuss the functions/responsibilities of each role and learn from the faculty perspective what is similar/different about each.*

- During recruitment, faculty were screened to confirm profile information and received general background information on the study (which the interviewer can refer to as needed).

## **I. INTRODUCTION**

### **A. GREETING**

Hello, my name is (NAME), and I am from Mathematica Policy Research.

[GIVE FACULTY MEMBER YOUR BUSINESS CARD.]

I want to thank you for working with us on this project, your response to the web questionnaire, and meeting with me today.

As we described when we scheduled this appointment and in the information you received about this interview, we'd like to talk with you for about an hour and a half to two hours to learn about your perspective on the training and education of your Ph.D. students.

As a token of our appreciation, when the interview is completed, I will give you \$50.

[EXPLAIN USE OF PROTOCOL.]

*Note: The recruitment and appointment confirmation process for the interviews will include background information on the purpose of these interviews. Therefore, the interviewer should not need to take time during the interview to provide this information unless asked. The interviewer will have reviewed the faculty profile, and the contact documentation related to the interview appointment, so he/she will know exactly what information the faculty member has before the appointment.*

## **B. AUDIO RECORDING**

All information collected in these interviews will be protected and reviewed only by the research team. Our report will summarize the key themes identified and will not connect the names of any individuals with information from their interviews. In some cases, we may use verbatim comments so the report will reflect the theme in the words of those we interviewed, but no names will be connected to these comments.

**Permission:** As we talked about when we set up this appointment, we will audio record our interview to make sure that we have an accurate record of your comments.

*[NOTE: WE WILL ALSO OBTAIN WRITTEN INFORMED CONSENT BASED ON INFORMATION GIVEN WHEN RECRUITED AND SCHEDULED THE APPOINTMENT.]*

## **II. BACKGROUND INFORMATION**

A. To get some background information, I'd like to begin by having you tell me about your research and your students. For example ...

MENTION SOME EXAMPLES, AS NEEDED, TO START THE CONVERSATION.

USE AS PROBES IF R DOES NOT GIVE A FULL DESCRIPTION.

### **FACULTY EXAMPLES**

- What is your field of study?
- What research projects are you working on? Are they similar/different to what you worked on when you were a graduate student?
- Do you conduct research in a lab?

### **FACULTY/STUDENT EXAMPLES**

- About how many doctoral students are you working with now? How about postdoctoral students?
- On what research projects are your doctoral students working? Are these primarily their own projects or your projects?
- Could you tell me more about how doctoral students are supervised? Do you have postdoctoral students who supervise doctoral students?

### **IF HAS A LAB**

- Tell me about how you manage and supervise the lab.

PROBE AS NEEDED: Tell me about the initial instructions for lab responsibilities and activities, frequency of review, and your general opinion of the quality of doctoral students' lab work.

- What is done for lab quality assurance? Are there written lab standards of operation?
- Is lab work reviewed? IF YES: Could you tell me more about how that review is conducted?

## **B. OVERVIEW OF FACULTY/DOCTORAL STUDENT LAB EXPERIENCE**

INTERVIEWER NOTE: SOME FACULTY MAY BE IN INSTITUTIONS IN WHICH DOCTORAL STUDENTS BEGIN THEIR GRADUATE EDUCATION ROTATING AMONG MULTIPLE LABS. THEY PAIR WITH AN ADVISOR/MENTOR AFTER THEY COMPLETE THIS ROTATION. FOR THE REST OF THEIR DOCTORAL PROGRAM/ EDUCATION, STUDENTS MAY WORK WITH A FACULTY MEMBER WHO IS ADVISING THEM DURING THE FIRST YEAR OR SO, BUT WHO IS NOT THE ULTIMATE PERSON THEY WORK WITH TO COMPLETE THE DOCTORAL PROGRAM.

WHEN YOU TALK WITH THE FACULTY MEMBER, MAKE SURE TO CLARIFY WHAT ROLE HE/SHE IS DESCRIBING IF HIS/HER SCHOOL USES THE LAB ROTATION PROCESS FOR ENTERING DOCTORAL STUDENTS. THE NEXT SET OF QUESTIONS IS TO CONFIRM IF THE FACULTY MEMBER YOU ARE TALKING WITH HAS/HAS NOT BEEN INVOLVED IN THIS TYPE OF LAB ROTATION.

1. Does your school or graduate program have a process for entering doctoral students in which they rotate among multiple labs to experience a variety of research projects and faculty before being paired with a specific faculty member as an advisor or mentor?

IF YES: Please tell me more about how this works.

IF YES: During this interview, we'll be talking about advising and mentoring doctoral students. The doctoral students I'd like you to tell me about are those with whom you work after the lab rotation, those with whom you will work until they complete their doctoral program.

## **III. OVERVIEW OF STUDENT MENTORING/ADVISING**

### **A. FACULTY MENTORING/ADVISING ROLE**

1. Faculty who work with doctoral students describe the activities and responsibilities working with these students in a variety of ways. I'd like to hear your ideas. Could you describe what you consider your doctoral student responsibilities? [WRITE THESE DOWN AS R LISTS THEM.]

AFTER RESPONSIBILITIES ARE DESCRIBED, REPEAT WHAT R HAS SAID:

- Let me review what you just said to make sure I've included all your comments.

READ LIST.

2. Faculty and academic institutions consider some responsibilities and activities related to the education and training of doctoral students as “advising” and others as “mentoring.” Among those we just talked about, could you tell me your thoughts on which, if any, you think of as either advising or mentoring?

PROBE AFTER R DESCRIBES. IF TOO MANY TO PROBE ARE MENTIONED, FOCUS ON THOSE RELATED TO THE RESPONSIBLE CONDUCT OF RESEARCH.

- Could you tell me more about why [NAME ONE DISCUSSED FOR ADVISOR] is considered an advisor role?
  - Could you tell me more about why [NAME ONE DISCUSSED FOR MENTOR] is considered a mentor role?
3. Overall, do you see yourself as more of an advisor or a mentor? Tell me more about why you use that description.
  4. If you considered individual doctoral students, would this description change? Are there some for whom you think of yourself more as an advisor and others as a mentor?

IF YES: Tell me more about those for whom you think of yourself as being a mentor. What makes it different from being an advisor?

5. Does your [NAME OF SCHOOL] assign doctoral students a person specifically called an advisor? A mentor?

**B. ADVISING/MENTORING APPROACH [FOCUS ON RESPONSIBLE CONDUCT OF RESEARCH]**

I'd like to learn more about your approach to [advising/mentoring].

1. During a “typical” week,\* could you please describe how you work with your doctoral and postdoctoral students (if has them)? For example, do you meet one-on-one or in groups?

\*NOTE: IF SCHOOL IS IN SESSION, YOU CAN ASK ABOUT THE PAST WEEK.

ONE-ON-ONE PROBE AS NEEDED:

- a. Tell me more about the one-on-one discussions and interactions you have. Generally, what is your goal in these meetings?



- b. Are these established appointments you make with each doctoral student?

GROUP DISCUSSION PROBE AS NEEDED:

- a. Tell me more about the group discussions and meetings. What type of group discussions, lab meetings, or other interactions do you have?
  - b. Are postdoctoral students involved in these group sessions? IF YES: Tell me more about what they do.
- 2. Overall, do you find one-on-one or group meetings most productive? PROBE: Could you tell me why?
  - 3. Are discussions and other types of interactions with students usually initiated by you or by the student?
  - 4. There are some specific activities that I'd like to have you tell me about. I'd like to know how, or if, you include them in your approach to [advising/mentoring] students. If these aren't activities you do with your students, let me know.

NOTE: IF ANY OF THESE HAVE ALREADY BEEN DISCUSSED, YOU DO NOT NEED TO REPEAT.

ACTIVITIES TO ASK ABOUT:

- a. Do you work with the doctoral student to define and develop a researchable question? IF YES: Tell me more about how you do this.
- b. Do you monitor the progress of the doctoral student's research?

IF YES: Tell me more about how you do this. To clarify, do you, the student's thesis committee, or both have the responsibility to monitor this progress?

IF NO: Does the student's thesis committee monitor this progress?

INTERVIEWER NOTE: IN SOME CASES, THE DOCTORAL STUDENT'S THESIS COMMITTEE WILL BE MONITORING THE PROGRESS. IF THIS IS APPLICABLE, CLARIFY WHAT THE FACULTY MEMBER DOES TO MONITOR COMPARED WITH THE COMMITTEE TO MAKE SURE STUDENT IS BEING MONITORED

- c. What role do you have in training students in research ethics and the responsible conduct of research? IF NEEDED: Tell me more about how students get this training.

PROBE: In your field, does the professional society have a role in training future researchers in the profession about the responsible conduct of

research and ethical scientific behavior? IF YES: Tell more about what the professional society does.

INTERVIEWER NOTE: THE RESPONSIBLE CONDUCT OF RESEARCH IS OFTEN REFERRED TO AS “RCR.” RCR IS FREQUENTLY GIVEN AS A COURSE. OUR INTEREST IS NOT IN THE COURSE SPECIFICALLY. IT IS IN GENERAL LEARNING AND TRAINING.

- d. Do you or someone else review the student’s research data? IF NEEDED: Tell me more about how students’ data are reviewed.
- e. Do you expect doctoral students to make research presentations or have posters at professional meeting?

IF YES:

- What role do you or others have in assisting students with these? IF NEEDED: Tell me more about how students are assisted.
  - When it is a joint effort with you, who usually presents—you or the student?
  - What’s your best estimate of the percentage of your doctoral students who submit abstracts for paper presentations or posters that are accepted?
- f. Do you expect doctoral students to publish their research before they get their Ph.D.s? IF YES: What role do you or others have in assisting students with publishing? IF NEEDED: Tell me more about how students are assisted.

Do you expect them to publish their Ph.D. research?

- Tell me about how the process usually works when you and a student are authors on an article planned for publication.
- Who typically does the first draft?
- How is the order of the authorship decided?
- When the article is about the student’s research, how does this process work—is it the same or different? Why or why not?

- 5. Please tell me about any other activities that you include in your [advising/mentoring] that we haven’t talked about that you think are critical to the training and education of your doctoral students.

PROBE IF NEEDED: Why is this/are these critical for doctoral students’ education?

### C. STUDENT SELECTION, COMMITMENT, AND INTERACTION

INTERVIEWER NOTE: WHEN YOU TALK WITH THE FACULTY MEMBER, REMEMBER TO CLARIFY WHAT ROLE HE/SHE IS DESCRIBING IF HIS/HER SCHOOL USES THE LAB ROTATION PROCESS DISCUSSED EARLIER FOR ENTERING DOCTORAL STUDENTS. WE WANT TO FOCUS ON THOSE STUDENTS HE/SHE IS ADVISING/MENTORING—NOT THOSE ROTATING THROUGH THE LAB.

HOWEVER, FACULTY MEMBERS MAY TALK ABOUT HOW THEY IDENTIFY STUDENTS THEY “CLICK” WITH DURING THE LAB ROTATIONS. FACULTY MAY ENCOURAGE THESE STUDENTS TO SELECT THEM AS ADVISOR/MENTOR. WE WANT TO LEARN HOW THAT PROCESS WORKS.

The nature of working with students can vary for a variety of reasons. One of these can be the “chemistry,” or relationship, that develops between you and the doctoral student with whom you work. I’d like to learn more about what are “typical” connections with students, as well as those that are exceptional or disappointing.

1. Let’s start by having you describe how the [advising/mentoring] process begins.

Could you tell me more about how the process works when you are paired with an incoming doctoral student? Is it usually (a) a joint decision, (b) you selected the student, (c) the student selected you, or (d) the department paired you?

PROBE AS NEEDED:

- a. **If a or b:** Tell me more about the criteria you use when you are deciding whether you want to be an [advisor/mentor] to a doctoral student. What are your expectations?
  - b. **If c or d:** Tell me more about what happens when a [student/department] selects you to be an [advisor/mentor]. For example, what steps happen before finalizing the match? What is the procedure if you don’t agree on the pairing?
2. Overall, do you think this pairing process works well or not? Could you tell me more about why you think it [does/does not] work well?
  3. After you and a student are matched, do you use or not use a written agreement or contract you both agree on to outline the student’s Ph.D. experience?

PROBE AS NEEDED:

IF NO AGREEMENT OR CONTRACT:

- a. How do you and the student establish goals and assess whether you are meeting these goals?

- b. Do you and the student discuss experiences related to training/education in the responsible conduct of research?

IF HAVE AN AGREEMENT OR CONTRACT:

- a. Could you please tell me more about this [agreement/contract]—what is included?
  - b. How is it monitored to see how/whether you are or are not meeting the goals you have agreed upon?
  - c. Does this [agreement/contract] include experiences related to training/education in the responsible conduct of research?
  - d. Generally, do you stick to what is required or supplement these requirements? IF ADD TO REQUIREMENTS: Tell me more about what you do beyond the requirements. Why?
4. Generally, what outcomes do you expect for your doctoral students?

IF NOT CLEAR FROM EARLIER DISCUSSION: Do you expect a doctoral student to publish before he or she graduates?

- 5. Thinking about the students you've [advised/mentored], could you tell me about the experience you thought was the most successful? Why did you think it was the most successful?
- 6. How about the experience you thought was the least successful? Why did you think it was the least successful?

#### **IV. INSTITUTIONAL AND DEPARTMENTAL GUIDELINES AND RESOURCES**

INTERVIEWER NOTE: THE FACULTY PROFILE WILL CONTAIN WHAT WAS REPORTED ON THE ORI FACULTY SURVEY. THESE ANSWERS ARE NOT TO BE REPEATED TO R, BUT WILL GIVE YOU BACKGROUND INFORMATION TO GUIDE YOUR PROBES.

##### **A. AWARENESS OF INSTITUTION AND DEPARTMENT ADVISING/MENTORING/ RCR INFORMATION**

- 1. Now I'd like to talk about graduate advising and mentoring information provided by [NAME OF ACADEMIC INSTITUTION] and your department/graduate program.

[NOTE: SOME FACULTY WILL BE IN A DEPARTMENT AND OTHERS IN A GRADUATE PROGRAM. USE WHAT'S APPROPRIATE FOR THIS R.]

Does [NAME OF ACADEMIC INSTITUTION] have a formal, written policy or guideline describing faculty responsibilities working with doctoral students? How about your department/graduate program?

2. For Each Yes: [Name of Academic Institution] and/or [ Department/Academic Program]

- a. Have you read these? IF YES: About when did you last read or review these?
- b. How useful, if at all, are these for your [advising/mentoring]?

PROBE AS NEEDED:

IF USEFUL:

- a. What are the one or two main reasons why they are useful?
- b. Do they assist you with your teaching? IF YES: Please tell me how you use them.

IF NOT USEFUL: What are the one or two reasons why they are not useful?

3. To the best of your knowledge, do your doctoral students know about these policies and guidelines?

4. IF DOCTORAL STUDENTS KNOW ABOUT THEM: When you are working with your graduate students, how often, if at all, are these referred to or discussed?

5. Do doctoral students receive responsible conduct of research (RCR) training?

IF YES: Could you tell me more about the RCR training?

PROBE AS NEEDED:

- a. When—what year in the graduate program—do they usually get this training?
- b. Do they find RCR training useful or not? Why or why not?
- c. Do you find RCR training for your students useful or not? Why or why not?

## V. RESPONSIBLE CONDUCT OF RESEARCH

NOTE: KEY RCR ISSUES: RESEARCH MISCONDUCT, CONFLICT OF INTEREST, PEER REVIEW, COLLABORATION, PUBLICATIONS/AUTHORSHIP, DATA MANAGEMENT [IMPORTANCE OF DATA COLLECTION AND STORAGE RULES], MENTORSHIP, ANIMAL SUBJECTS, HUMAN SUBJECTS.

1. Do you think the students you have [advised/mentored] would recognize scientific misconduct or falsification of data?

PROBE AS NEEDED: Please explain why you think they would/would not.

2. How likely would they be to report scientific misconduct or falsification of data to you? To other people or administrative departments at [NAME OF ACADEMIC INSTITUTION]?

PROBE AS NEEDED: Please explain why you think they would/would not.

3. Have you ever had someone report scientific misconduct or falsification of data to you?

PROBE AS NEEDED: Please describe what happened.

## VI. SUMMARY

Thank you for taking the time to talk with us. I want to give you an opportunity to give us any suggestions you have.

1. What, if anything, do you need to help you train the students you [advise/mentor] to be responsible researchers?
2. Do you have any suggestions to improve the responsible conduct of research training for graduate students? Any suggestions for educating doctoral students so they learn about and understand ethical research behavior?

Thank you very much for your assistance.

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