

Appendix B: PI Interview Protocol

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Introduction

This is [name], from Abt Associates. How are you? Abt Associates is working with the National Science Foundation to conduct a study about how the IGERT projects prepare students to work as interdisciplinary researchers. One major component of this study is interviews with Principal Investigators from the 2007 and 2008 cohorts of IGERT projects.

I want to start off by thanking you for agreeing to participate in this interview.

- ❑ Before we begin this interview, I want to remind you that your participation is voluntary and you may choose to stop this interview at any point.
- ❑ Your responses to our questions will be aggregated with those of other PIs and we will not attribute particular comments or suggestions to specific individuals. Your participation in this interview is voluntary, so if you prefer not to answer a question, or if you want to end this interview for any reason – just let me know.

[If using a note taker]

Also, my colleague, [name2], is on the telephone with me; she will help me take notes during the interview.

[If using a tape recorder]

I'd like to audiotape our conversation so that I can listen at a later time for points I might miss during the conversation. Is that okay with you?

Instructions

I'd like to proceed with the interview questions. Please let me know at any point during the interview if you would like me to repeat a phrase or question or provide clarification on any terms or phrases that you do not understand.

Do you have any questions before we begin?

Protocol

1. Have you been the PI of this IGERT project since it was initially awarded? When did you become the PI?
2. Did you help to develop the proposal for this IGERT?

IF YES:

- How did you get involved in working on the proposal?
- What was your motivation for bringing an IGERT project to UNIVERSITY?
- How did faculty from departments other than your own become involved in conceptualizing a plan for IGERT?

IF NO:

- When did you become involved in the IGERT project?
3. With regard to recruiting or selecting students for IGERT, what do you look for in students?
 - Are there specific characteristics, interests, and/or skills that you prefer students to have?

Next, I'd like to ask you about different types of knowledge and abilities that may or may not be important to facilitate interdisciplinary research. For each type of knowledge or ability, I'll ask how important you think it is to facilitate interdisciplinary research; then I'll ask whether and how your IGERT project provides training for students to acquire and develop in these areas.

[If need explanation of what we mean by training activities – use examples from this list]

- *Discipline specific courses/seminars across multiple of disciplines*
- *Courses/seminars that specifically cover interdisciplinary topics related to your IGERT theme*
- *Hands-on laboratory and/or field experiences in disciplines related to your IGERT project*
- *Journal clubs or research brown bags*
- *Internships in a non-academic setting (industry, business, government, etc.)*
- *Interdisciplinary team research project*
- *International research experiences*
- *Mentorship from faculty in disciplines other than students' primary discipline*

Keep in mind that we're conducting this interview with PIs from a wide range of IGERT projects so some knowledge and abilities may be more or less emphasized in different projects. We recognize that each IGERT project is structured differently and the activities you mention might be different from those mentioned by a PI from a different project.

Any questions before I proceed?

4. A) To conduct interdisciplinary research, how important is it for trainees in your IGERT project to have depth of knowledge in one discipline or field of study? *Not at all important, somewhat important, important, very important*

B) How does your IGERT project develop trainees' depth of knowledge in one discipline or field of study?

Are there [any other] training activities that are part of your IGERT project that specifically contribute to developing this depth of knowledge in a single discipline? *By “training activities” I mean things like seminars or journal clubs, internships, team research projects, lab rotations – anything your IGERT project uses to develop students’ depth of knowledge in a primary discipline.*

5. A) To conduct interdisciplinary research, how important is it for trainees in your IGERT project to recognize the strengths and weaknesses of multiple disciplines? *Not at all important, somewhat important, important, very important*

B) How does your IGERT project develop trainees’ ability to recognize the strengths and weaknesses of multiple disciplines?

Are there [any other] training activities that are part of your IGERT project that specifically contribute to developing this ability?

6. A) To conduct interdisciplinary research, how important is it for trainees in your IGERT project to apply the approaches and tools from multiple disciplines to address a research problem? *Not at all important, somewhat important, important, very important*

B) How does your IGERT project develop trainees’ ability to apply the approaches and tools of multiple disciplines to address a research problem?

Are there [any other] training activities that are part of your IGERT project that specifically contribute to developing this ability?

7. A) To conduct interdisciplinary research, how important is it for trainees in your IGERT project to work in a team with individuals trained in different disciplines? *Not at all important, somewhat important, important, very important*

B) How does your IGERT project develop trainees’ ability to work in a team with individuals trained in different disciplines?

Are there [any other] training activities that are part of your IGERT project that specifically contribute to developing this ability?

8. A) To conduct interdisciplinary research, how important is it for trainees in your IGERT project to communicate (orally and in writing) about research based in one discipline to researchers trained in different disciplines? *Not at all important, somewhat important, important, very important*

B) How does your IGERT project develop students’ ability to communicate about research based in one discipline to researchers trained in different disciplines?

Are there [any other] training activities that are part of your IGERT project that specifically contribute to trainees’ ability to communicate with academic audiences from other disciplines?

9. A) To conduct interdisciplinary research, how important is it for trainees in your IGERT project to communicate (orally and in writing) about interdisciplinary research to non-academic audiences (laypersons)? *Not at all important, somewhat important, important, very important*

B) How does your IGERT project develop students' ability to communicate about interdisciplinary research to non-academic audiences?

Are there [any other] training activities that are part of your IGERT project that specifically contribute to trainees' ability to communicate to non-academic audiences?

10. What other skills, abilities, or types of knowledge do you find are important to facilitate conducting interdisciplinary research?

- Probe:
 - *Why is this skill area important for interdisciplinary research*
 - *How does your IGERT project help to develop that [skill/ability/knowledge]?*

11. How does your IGERT project assess or monitor students' development as an interdisciplinary researcher?

- Do you use any specific measures or tests to assess students' interdisciplinary research capacity?
- What are key indicators that students understand how to conduct interdisciplinary research?

12. What challenges or difficulties have you observed IGERT students experiencing with the program?

13. Which elements of your IGERT project do you think are working well? Which elements would you like to see improved?

Closing

14. Would you like to add anything else about your IGERT project?

Thank you very much for your time today. The input you've provided will be used to improve and refine the interview protocol as it stands.