

Increasing Mentoring Capacity: Developing a Program to Train High-Quality Research Mentors

Rachel Hayes-Harb & Megan Shannahan
University of Utah
Office of Undergraduate Research

For presentation materials:
bit.ly/cur2018mentoring



Conception & Development

- Increase availability of high-quality undergraduate research mentors on our campus
- Our funding programs require involvement of a *faculty* mentor
 - Graduate students and post-docs interested in mentoring
 - Scaling up
- Graduate School University Teaching Assistant Program
 - PhD student in Linguistics, College of Humanities
 - Fall 2016: Research, module development
 - Spring 2017: Pilot implementation



Modules

- Six online (Canvas) modules
- Five in-person discussion sessions
- Culminating assignment: Statement of Mentoring Philosophy
- Topics organized around core mentor training competencies grounded in academic research (e.g. Pfund et al. 2013) and further modified in subsequent semesters thanks to facilitator expertise and participant feedback



Module 1

Elements of Effective Mentoring/ Developing a Mentoring Philosophy

LEARNING OUTCOMES

- Identify research-based characteristics of high-quality mentoring
- Identify how their prior experiences with mentorship influence their approaches to working with undergraduate researchers
- Identify considerations/implications of mentorship for diverse undergraduates
- Articulate a preliminary Mentoring Philosophy
- Orient themselves to the structure of the Mentor Program modules



Module 2

Establishing Expectations and Maintaining Effective Communication

LEARNING OUTCOMES

- Articulate the importance of explicit expectations and formulate plans for expectations within the mentoring relationship
- Evaluate various practices for effective communication
- Identify considerations/implications of setting expectations and communicating with diverse undergraduates



Module 3

Assessing Understanding and Fostering Independence

LEARNING OUTCOMES

- Connect qualities of a mentee to independence readiness
- Determine when a mentee is ready to independently take on a project or task
- Identify considerations/implications of such independence for diverse undergraduates



Module 4

Fostering Academic Literacies

LEARNING OUTCOMES

- Provide effective feedback on undergraduate researcher writing
- Connect undergraduate researchers with on-campus resources for research writing
- Identify considerations/implications of mentorship in academic reading and writing for diverse undergraduates



Module 5

Research and Mentoring Ethics

LEARNING OUTCOMES

- Discuss and problem-solve ethical issues with mentees
- Identify ethical considerations/implications of mentorship for diverse undergraduates



Module 6

Professional Development

LEARNING OUTCOMES

- Identify skills and topics relevant for undergraduate researchers' professional development
- Select tasks and goals that showcase a mentee's professional skills and assess current skills level
- Identify considerations/implications of professional development for diverse undergraduate researchers



Diversity

- Initially, diversity was discussed in a stand-alone module
- We have now woven issues of diversity and mentoring throughout the program
 - Throughout all modules:
cultural issues and issues of diversity and communication
 - For every case study:
How might this experience be affected by differing backgrounds and/or identities of the mentor and mentee?
 - Mentoring philosophy prompt:
How does your approach to mentoring account for mentees' diverse backgrounds and identities (including cultural, linguistic, racial, gender, socioeconomic, and age diversity)?



Participant Recruitment

- Support from Graduate School
 - Directors of Graduate Studies
 - Graduate Advisor Professionals Association listserv
 - Post-doc listserv
- OUR listserv (faculty and staff)



Need to Cultivate Faculty Facilitators

- To serve more participants...
 - Wait list!
 - Program scalable at 25 participants per facilitator per semester
- To ensure sustainability...
 - Need a “team” of available facilitators
- To maximize efficacy...
 - Need a variety of perspectives, backgrounds, and disciplines represented among facilitators



Faculty Facilitators

- Commitment
 - Fall and spring semesters
 - Reviewing and providing feedback on quizzes and mentoring philosophies
 - Facilitating in-person discussions about readings and case studies
- Funding
 - AY 2017-18 funded by Dean of Undergraduate Studies (\$5,000)
 - AY 2018-19 funded by our office; two facilitators (\$4,000 each)



Pilot Semester

- Spring 2017
- Facilitated by Director of Office of Undergraduate Research
- In-person meetings:
 - "Extract" principles of high-quality mentoring from online readings/activities
 - Apply principles to addressing case studies in small- and large-group discussions
- 13 completed participants



Since then...

AY 2017-18

- Faculty facilitator from Writing and Rhetoric Studies
- Fall 2017 (23 completed participants) and Spring 2018 (29 completed participants)

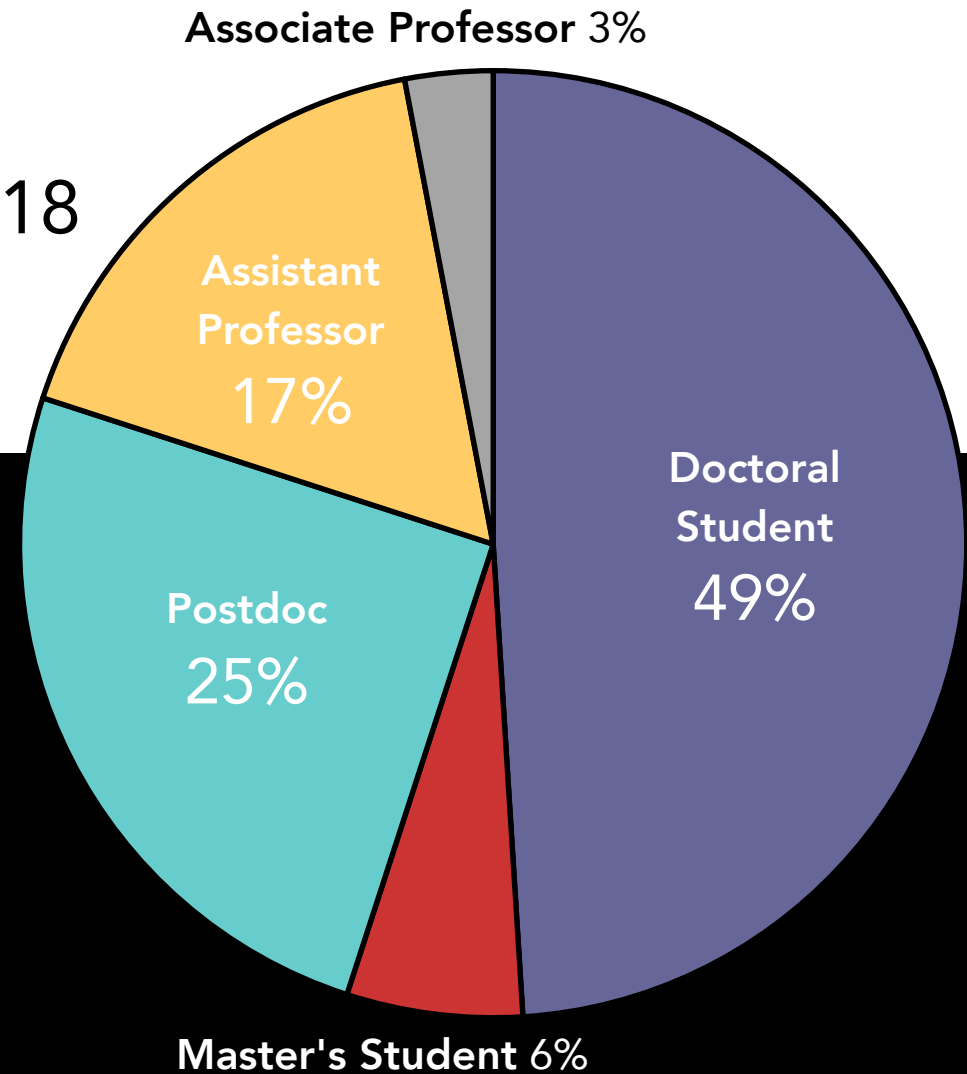
AY 2018-19

- Two faculty facilitators from World Languages & Cultures and Oncological Sciences
- Current wait list: 117 (18 faculty, 76 graduate students, 20 postdocs, 3 other)



Participant Profiles

- Spring 2017, Fall 2017, Spring 2018
- Total n = 65





Program Assessment

- Participants complete pre- and post-program questionnaires
- n = 58 (response rate 89%)

Please rate how skilled you feel you are in each of the following mentoring competencies:

1 2 3 4 5 6 7

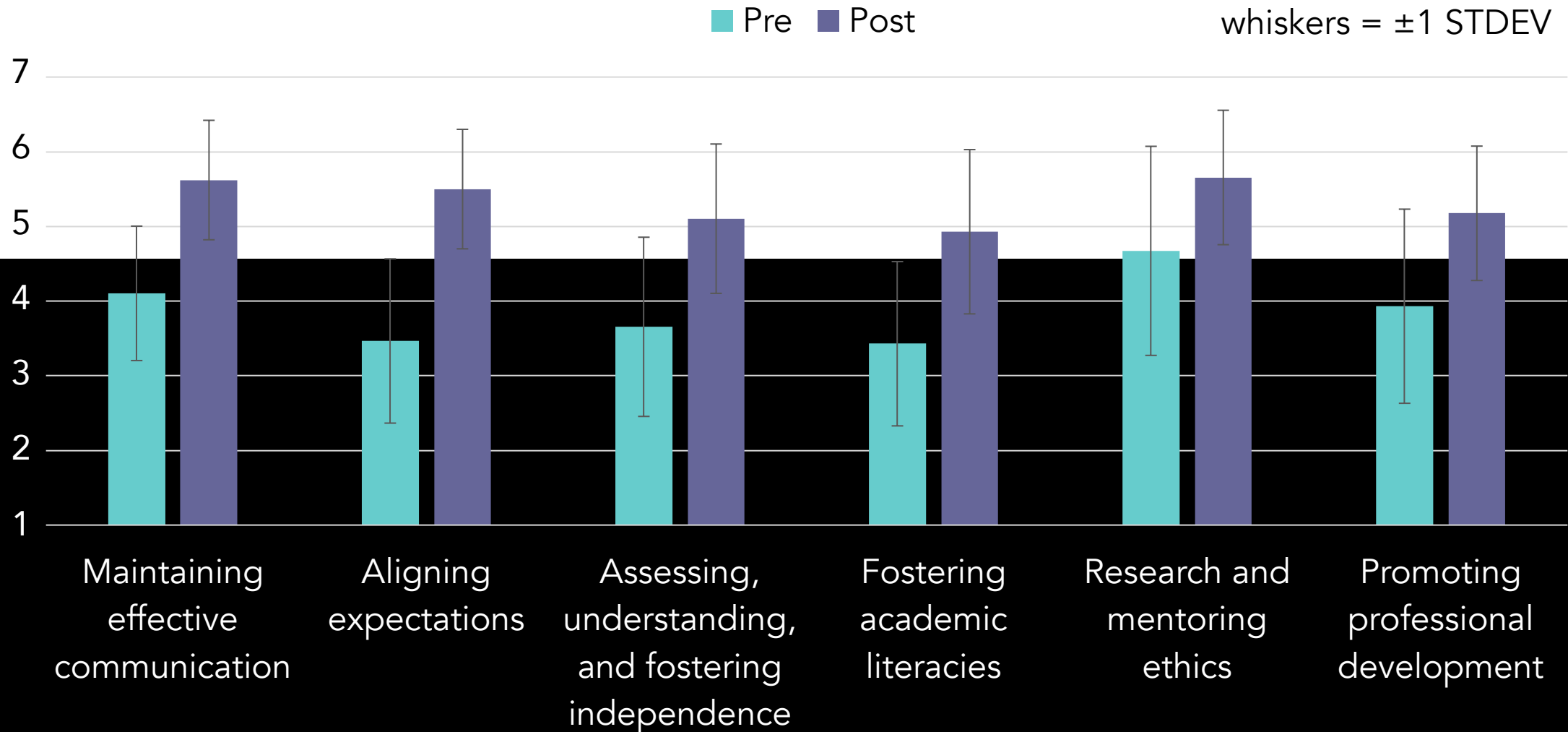
Not at all

Moderately

Extremely



Participant Pre/Post Self-Assessment





What are the strengths of this mentor training? Are there things you would like to see changed or added? If so, what?

- Readings and case studies; in-person meetings
- Hearing about participants' varied experiences (differing disciplines, backgrounds, career stages)



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"It got me to think more broadly about possible issues and challenges in mentoring. Expanded my understanding of what mentoring is."

"It was relieving to hear someone be honest about tough decisions and that there is gray area in some of these topics."

"The facilitator provoked strong discussion and had personal insight into these topics."

"I thought it was very valuable to have representation from a range of academic disciplines, both to see what kind of topics/issues are present across disciplines as well as the differences between fields."

"I have a better self recognition of my actions and behaviors as they pertain to the mentoring relationship and how those can be perceived and interpreted by the mentee."



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What are the weaknesses of this mentor training? Are there things you would like to see changed or added? If so, what?

- Need more class time, smaller class size
- Separate participants into disciplinary-based groups for discussion
- Separate participants into multi-disciplinary groups for discussion

"I thought the interdisciplinary nature of the workshop was both positive and negative. On the one hand, it was really interesting to get to talk to others outside of my field. On the other hand, some of the examples used and others' experiences in how they approach mentoring are extremely different from how it works within my field."



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Please describe any changes in your mentoring practices that you have made or plan to make as a result of this training.

- Setting clear expectations, usually using some kind of agreement document (33 mentioned this)
- More communication (more meetings, more open lines of communication, more check-ins)

"A mentee that I had was consistently late and a poor communicator through email. Before this class I had pretty much given up on him. However, this class inspired me to be a better mentor and try harder to reach him because he has the talent to be a very skilled scientist. I have met with him and addressed these issues and now am meeting with him monthly, communicating through text more, and giving him work that will progress him towards what both of us have interest in. Overall, this has become an excellent mentoring relationship over the last several weeks."



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Please describe any changes in your mentoring practices that you have made or plan to make as a result of this training.

"I think we've had more conversations about topics I had not considered discussing with mentees before such as publishing expectations etc."

"I also got a lot of insight into the experiences of people who don't have the same social or cultural background as myself, and how I know notice biases or assumptions I have made beforehand and how important it would be for me to be aware of these when in a mentoring relationship."

"I have also stepped back a bit on perfection and instead ask others' opinions with less judgement since the process of reflection can itself be quite illuminating."

"This training also shaped the way I see my own mentors- not just as someone who should selflessly always be there to hold my hand, but someone who I must expect to also give back to and share the benefits of my successes with."



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What has surprised us?

- **Difficulty recruiting faculty participants (and facilitators)**
 - Faculty are busy...
 - Relatively few faculty participate in the program
- **Campus-wide enthusiasm for the program**
 - Wait list: consistently over 100
 - Other conversations around mentoring
 - Requests for special presentations



Campus Conversations Around Mentoring

- **Summer Program Partnership**
 - One-hour mentor workshop for university-wide summer research programs
- **Master of Science for Secondary School Teachers support program**
 - Adapting our online modules for teacher training
- **Utah Center of Excellence in Ethical, Legal, and Social Implications Research**
 - Supporting development of a program-specific mentor program
- **Requests for special presentations**
 - Graduate School for professional development series (2 hours)
 - College of Science junior faculty meeting (1 hour)
 - Individual departments...capacity challenge



Next steps...

- Continue to recruit faculty with potential to serve as future facilitators
- Ongoing assessment and program improvement
- Funding sources
 - Graduate School? Post-doc programs?
 - Federal training grants, esp. in School of Medicine



Thank you!

Rachel Hayes-Harb
r.hayes-harb@utah.edu

Megan Shannahan
megan.shannahan@utah.edu
801-581-2478

URMDP website:
our.utah.edu/mentoring

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