

Fostering Mentor/Mentee Relationships in Research Intensive Faculty

April Hatcher, PhD and Donna Wilcock, PhD

WELD Final Project 2019

Project Goals

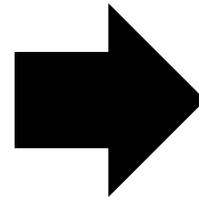
- Encourage self-reflection and open dialogue around this subject with faculty and students.
- Use case-based scenarios to promote awareness of mentor/mentee perceptions.
- Receive input from faculty and students on innovative ways to improve mentor-mentee interactions.

Methods

Department	Discussion Date
Neuroscience	October 14 th
Cellular Biochemistry	October 14 th
Toxicology/ Cancer biology	October 15 th
Pharmacology/ Nutritional Sciences	November 5 th
Behavioral Science	November 8 th
Microbiology/ Immunology/ Molecular Genetics	November 15 th
Physiology	November 19 th

Student-led discussion

Led by a doctoral student
6 sessions during October (24th and 28th) and
November (1st, 4th, 11th, and 13th)



3 mentor/mentee
scenarios

~20-25 minutes
discussion

1-2-4-All discussion
format

Survey sent one week
post-discussions

Scenarios

You are a young, new faculty member who has just transitioned from postdoctoral work. You are used to a laboratory environment where junior and senior lab members are friends, they hang out outside of work, including at each other's' homes. They do personal favors for one another and you want to encourage that environment in your laboratory. However, complaints are made that you are placing unreasonable expectations on graduate students outside of working hours, like personal favors, sending work-related text messages late at night, and expecting trainees to come to your house for gatherings on weekends. None of these activities were a problem when you were a trainee, so why are they causing problems in your new lab?

You have a progress meeting scheduled with your second year graduate student, Elsie. This meeting has been rescheduled a couple of times due to extra time needed for a grant deadline. When you meet with Elsie, she walks you through the most recent data she has gathered. You are surprised at this data because it is not in keeping with the experiment you remembered discussing with her a few weeks ago. When you question Elsie, she recounts a different discussion and insists that you did not mention this experimental design before now. How do you respond in this situation?

You have accepted a first-year graduate student, Alec, into your lab. He worked in your lab during an IBS rotation and established a promising start to his graduate training by working hard and contributing to a collaborative learning environment. Currently Alec is completing department specific 2nd-year course requirements. During this time, he is spending between 15 and 20 hours in the lab, and using the remainder of the time to prepare for coursework and a thorough literature search for his new project. Alec feels he is working hard in the lab, but when you approach him about low productivity, he explains he is feeling stressed and working too hard between lab and study. How do you resolve this conflict?

Respondents

Variable	Faculty		Students	
	N	%	N	%
Female	42	38.5%	28	77.78%
Male	27	60%	8	22.22%
Instructor	1	1.45%		
Assistant Professor	19	27.54%		
Associate Professor	14	20.29%		
Full Professor	35	50.72%		
Present at discussion	52	82.86%		
Year 1-2			10	27.78%
Year 3-4			17	47.22%
Year 5+			9	25%
Present at discussion			15	41.67%

Notable findings from the student survey

- Only 13 out of the 36 (36%) responded to the question “Reflecting on the discussion, do you believe your mentor has made unreasonable requests of you”. Of those, 46% responded “yes”.
- 46% related most to the scenario regarding inconsistencies between faculty and graduate student expectations on experimental design.
- 92% of 13 respondents have been approached by peers experiencing similar issues to those in the scenarios.

Notable findings from the faculty survey

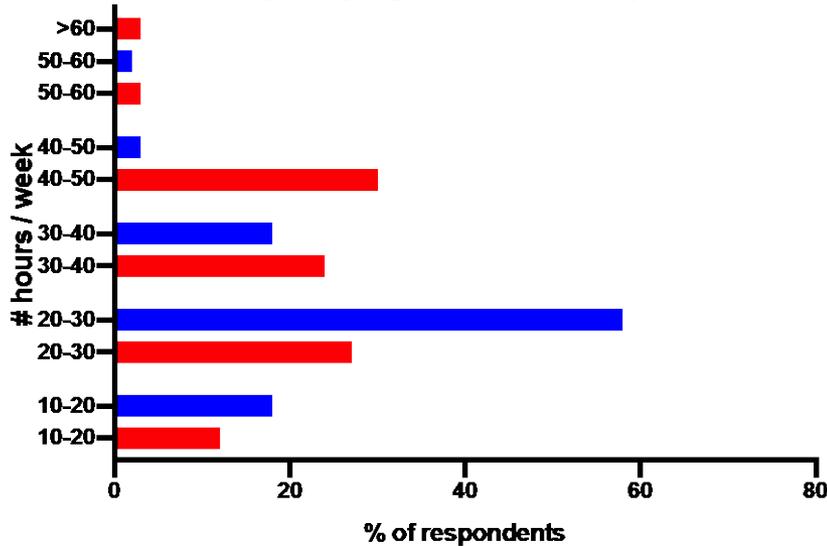
- Only 1.79% (1 out of 56) responded "yes" to the question "reflecting on the discussion, do you believe you have made unreasonable requests of your mentees"
- 62% related most to the scenario regarding inconsistencies between faculty and graduate student expectations on experimental design.
- 52% of respondents have been approached by graduate students experiencing similar issues to those in the scenarios.

Hour expectations of students

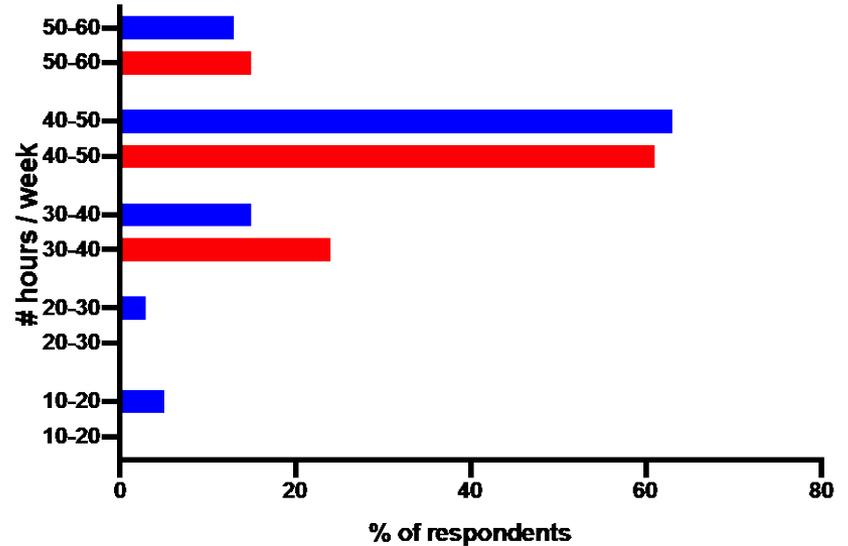
Faculty

Students

Pre-qualifying exam hour expectations

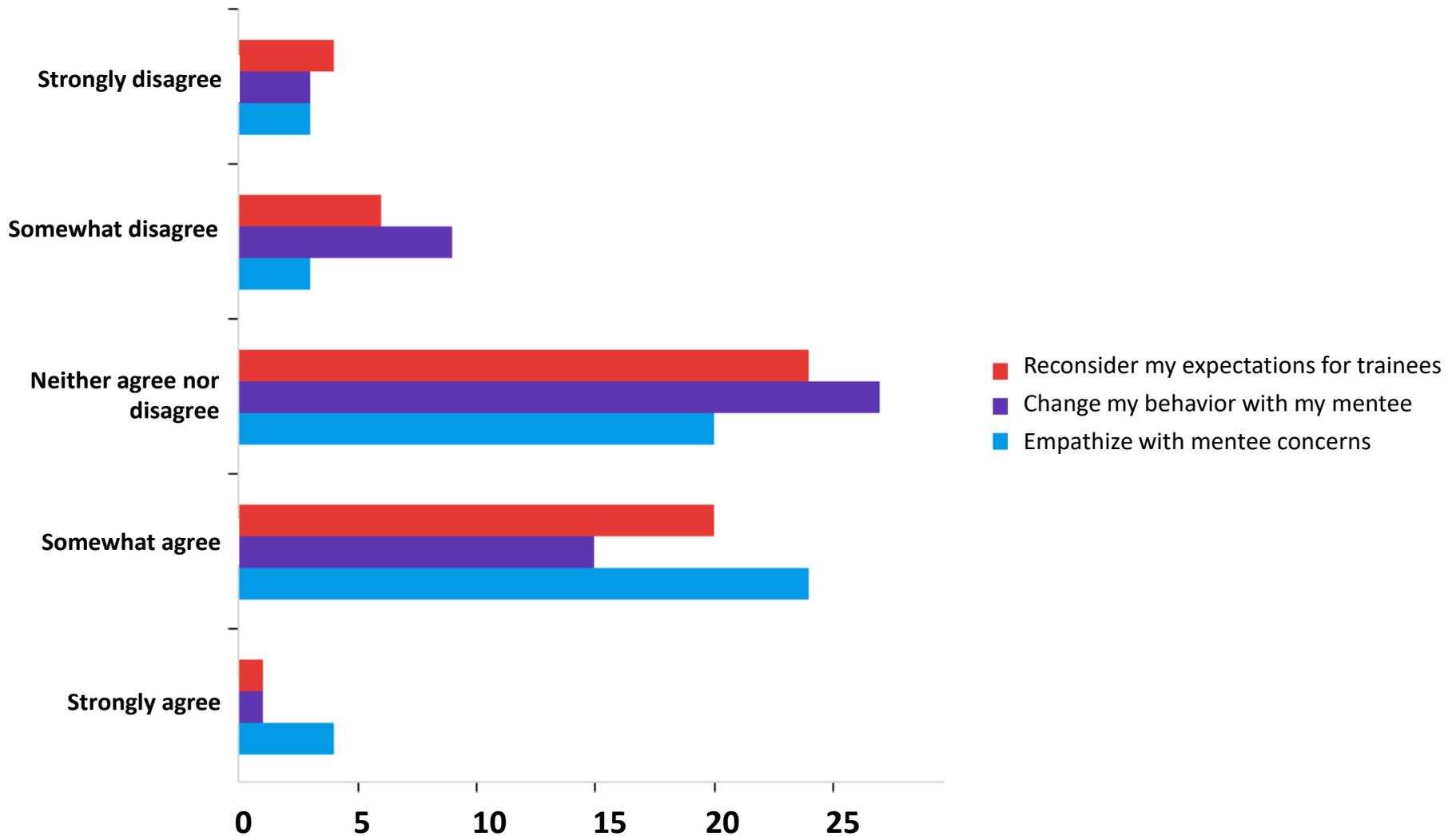


Post-qualifying exam hour expectations



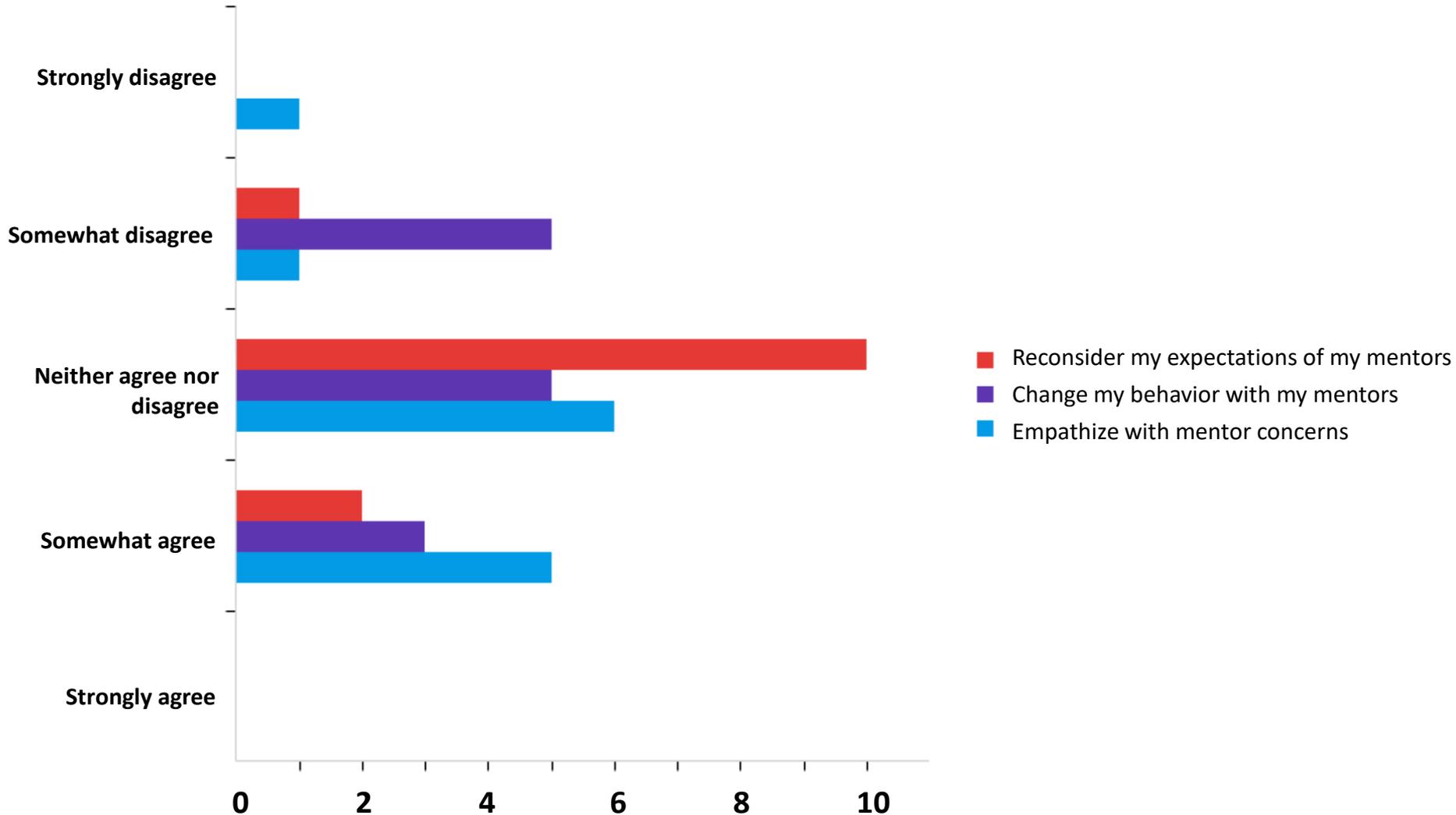
Faculty Q4 - Please rate the following statements according to your level of agreement. (1=Strongly disagree, 5=Strongly agree)

Discussion of the mentor-mentee scenarios helped me to:



Student Q4 - Please rate the following statements according to your level of agreement. 1=Strongly disagree, 5=Strongly agree.

Discussion of the mentor-mentee scenarios helped me to:



Faculty: What is your most frequent mentor-mentee difficulty?

Category	Number of comments (out of 46)
Time management	9 (20.0)
Quality Assurance	8 (17.4)
Communicating Expectations	7 (15.2)
Professional Conduct	6 (13.0)
Fostering Ownership	6 (13.0)
Writing Process	2 (4.3)
Experimental Design	2 (4.3)

Representative comments

Time Management

“On-time finishing of tasks when time frame was agreed upon with mentee”

“Students underestimate the amount of time anything takes”

Quality Assurance

“Reliability of data”

“...Student taking shortcuts”

Communicating Expectations

“Making sure that my expectations match their expectations”

“Mentee recognizing that they must work to reap the benefits”

Professional Conduct

“Procrastination without justification”

“Balancing cordiality with maintaining professional arms-length interactions. Not enforcing productivity from the trainees but allowing them to underperform with aplomb.”

Fostering Ownership

“Lack of motivation to develop independence in the progression of their research projects”

“Mentees getting discouraged by negative results or failed experiments.”

Student: What is your most frequent mentor-mentee difficulty?

Category	Number of Comments (out of 25)
Communication	9 (36.0)
Meeting Frequency	8 (32.0)
Lab Environment	3 (12.0)
Experimental Design	2 (8.0)

“Differences in expectations regarding how long a protocol or experiment actually takes versus how long my PI think it takes to complete.”

“Not meeting frequently; experiments are hard to start since mentor wants input on design, but meeting infrequently prevents this.”

“Mentor's general absence from the lab and thus lack of knowledge of problems with lab dynamics and conflicts occurring between lab members that are a detriment to conducting research.”

“Missing small details in protocols.”

Future Directions

- Mentor training is critical to reduce complaints and improve student success.
- The scenarios were well received and the discussion feedback generally positive.
- The **National Research Mentoring Network** provides formal training to senior faculty who can become certified trainers, so they can then train faculty at their institution.
- The NRMN program is based primarily on scenarios and discussion, much like our work here.
- The NRMN could provide a formalized way to require and provide mentor training to our faculty.



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Welcome to the National Research Mentoring Network

An ideal state

- “I have an amazing mentor and have not have situations that I could call difficult. We have great line of communication and so far even when there was difference of opinions we have had very productive meeting and identified areas that needed adjustment.”

Special thanks to:

- Chelsea Barrett, doctoral student in Biochemistry
- Department Chairs and administrative assistants
- Dr. Beth Garvy, Associate Dean for Biomedical Education
- Dr. Lisa Tannock Senior Associate Dean for Faculty Affairs and Development
- To all the willing participants!
- Dr. Hollie Swanson, Director of WELD

Questions?