

Optimizing Mentoring Relationships:

Fostering Independence Growth Mindset Mentee Mental Health

March 27, 2018

Christine Pfund, PhD.

Director, Center for the Improvement of Mentored Experiences in Research (CIMER)
Co-PI, National Research Mentoring Network (NRMN)
Wisconsin Center for Education Research
University of Wisconsin-Madison

Melissa McDaniels, PhD

Affiliate, Center for the Improvement of Mentored Experiences in Research (CIMER)
Assistant Dean, Graduate School, Michigan State University

Interacting with the presentation via GoToWebinar



Asking questions and responding to discussion prompts during presentation

Questions

[Enter a question for staff]

Send

Webinar Now
Webinar ID: [redacted]

GoToWebinar

Responding to polls

Just for practice: What's your favorite color?

1. Blue
2. Green
3. Red
4. Mauve
5. Other

Webinar Agenda- March 27, 2018

Introductory Activity: Who is in the 'room'?

Recap of Webinar #1

Today's topics:

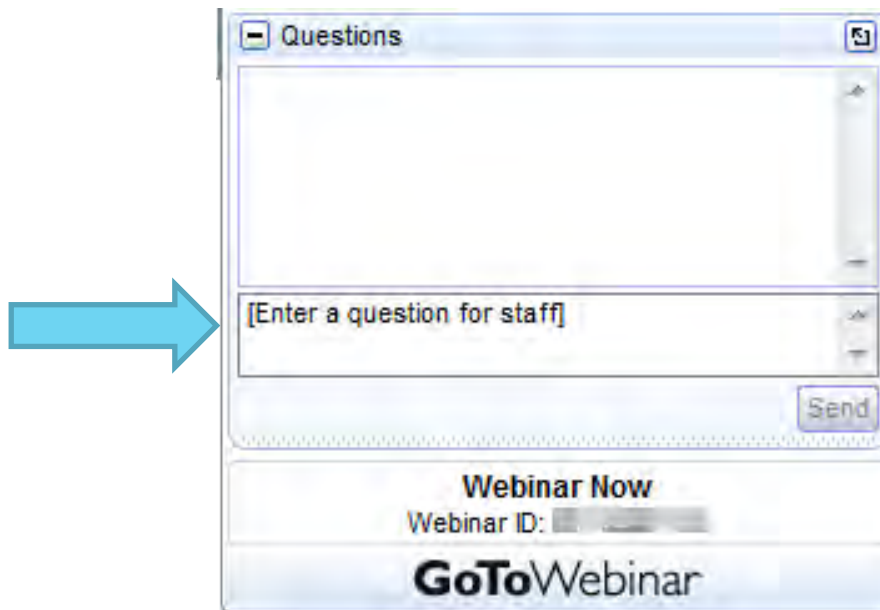
- Fostering Independence
- Growth Mindset
- Resources on Mental Health
- Input on topics for April 24 webinar

Next webinar: April 24, 2-3pm CT

Introductory Activity

In Questions window, please share:

**Where do you currently work?
(institution, organization)**



The image shows a screenshot of a GoToWebinar interface. At the top, there is a window titled "Questions" with a close button. Below the title bar is a large empty text area. Underneath that is a smaller text input field containing the placeholder text "[Enter a question for staff]". A blue arrow points from the left towards this input field. To the right of the input field is a "Send" button. Below the input field, there is a section titled "Webinar Now" with a "Webinar ID:" label and a blurred ID number. At the bottom of the window is the "GoToWebinar" logo.

Poll: What Career Stage are You?

1. Faculty
2. Research Staff
3. Post-doc
4. Graduate Student
5. Other

Poll: How many mentees are you currently mentoring?

1. 1
2. 2
3. 3
4. More than 4
5. None

Poll: What Career Stage are Your Current Mentees?

1. Junior Faculty
2. Research Staff
3. Post-doc/ Graduate Student
4. Undergraduate
5. More than one of the above

If none of the above, skip this question.

Recap of Webinar #1

Science for Mentorship: Attributes for Effective Mentoring and Mentor Training

Main Topic: Providing Feedback

- Effective Communication
- Culture and Communications
- Research Self Efficacy
- Resources

Webinar and resources posted at:

<http://www.aps.org/programs/minorities/nmc/webinars.cfm>

A Mentored Research Experience and Strong Mentorship has been linked to:

- ▶ **Enhanced research identity, sense of belonging and self-efficacy** (Palepu *et al*, 1998; Garman *et al*, 2001; Paglis *et al*, 2006; Lopatto, 2007; Bland *et al*, 2009; Feldman *et al*, 2010; Cho *et al*, 2011; Chemers *et al*, 2011; Thiry and Laursen, 2011; Byars-Winston *et al*, 2015)
- ▶ **Persistence** (Gloria *et al*, 2001; Solorzano 1993; McGee and Keller, 2007; Sambunjak *et al*, 2010; Williams *et al*, 2015; Bordes-Edgar *et al*, 2011; Campbell and Campbell, 1997)
- ▶ **Research productivity** (Steiner and Lanphear, 2002; 2007; Wingard *et al*, 2004)
- ▶ **Higher career satisfaction** (Schapira *et al*, 1992; Beech *et al*, 2013)
- ▶ **Enhanced recruitment of URMs** (Hathaway *et al*, 2002; Nagda *et al*, 1998).

Defining Mentoring

A **collaborative learning relationship** that proceeds through purposeful stages over time and has the primary goal of helping mentees acquire the essential competencies needed for success in their chosen career.

It includes using one's own experience to guide another through an experience that requires **personal and intellectual growth and development.**

Applies to research mentoring, career coaching, peer mentoring, virtual mentoring, and in some cases advising



Skill Building Across Attributes for Effective Research Mentoring Relationships

RESEARCH SKILLS <ul style="list-style-type: none">· Developing disciplinary research skills· Teaching and Learning disciplinary knowledge· Developing technical skills· Accurately assessing mentees' understanding of disciplinary knowledge and skills· Valuing and practicing ethical behavior and responsible conduct of research	DIVERSITY/CULTURALLY-FOCUSED SKILLS <ul style="list-style-type: none">· Advancing equity and inclusion· Being culturally responsive· Reducing the impact of bias· Reducing the impact of stereotype threat
INTERPERSONAL SKILLS <ul style="list-style-type: none">· Listening actively· Aligning mentor and mentee expectations· Building trusting relationships/ honesty	SPONSORSHIP SKILLS <ul style="list-style-type: none">· Fostering mentees' independence· Promoting professional development· Establishing and fostering mentee professional networks· Actively advocating on behalf of mentees
PSYCHOSOCIAL SKILLS <ul style="list-style-type: none">· Providing motivation· Developing mentee career self-efficacy· Developing mentee research self-efficacy· Developing science identity· Developing a sense of belonging	

In partnership with NRMN (NIH), NSF, HHMI and others we have developed mentor and mentee training intervention

Training Types:

- Face-to-face mentor training workshops
- Face-to-face mentee training workshops
- Self-paced online training
- Synchronous online training
- Train-the-trainer workshops
- New modules



...and we studied them

Pfund, C., Pribbenow, C., Branchaw, J., Miller Lauffer, S. and Handelsman, J. (2006). The merits of training mentors. *Science* 311:473-474.

Pfund C, House S, Spencer K, Asquith P, Carney P, Masters K, McGee R, Shanedling J, Vecchiarelli S, Fleming M. (2013). A Research Mentor Training Curriculum for Clinical and Translational Researchers. *Clin Trans Sci.* 6:26-33.

Fleming M, House S, Hanson VS, Yu L, Garbutt J, McGee R, Kroenke K, Adebini Z, Rubio D. (2013). The Mentoring Competency Assessment: Validation of a New Instrument to Evaluate Skills of Research Mentors. *Acad Med.* 88(7):1002-1008.

Sorkness CA, Pfund C, Asquith P, Drezner M. (2013). Research Mentor Training: Initiatives of the University of Wisconsin Institute for Clinical and Translational Research. *Clin Transl. Sci.* 6(4): 256-258.

Pfund C, House SC, Asquith P, Fleming MF, Buhr KA, Burnham EL, Eichenberger Gilmore JM, Huskins WC, McGee R, Schurr K, Shapiro ED, Spencer KC, Sorkness CA. (2014). Training Mentors of Clinical and Translational Research Scholars: A Randomized Controlled Trial. *Acad Med.* 89:774-782.

Pfund, C., Spencer, K., Asquith, P., House, S., Miller, S., Sorkness, C. (2015). Building National Capacity for Research Mentor Training: An Evidence-Based Approach to Training-the-Trainers. *CBE Life Sciences Education* 14 (2).

McDaniels, M., Pfund, C. and Barnicle, K. (2016). Creating Dynamic Learning Communities in Synchronous Online Courses: One Approach from the Center for the Integration of Teaching and Learning (CIRTL). *Online Learning*.

Please respond in the Question Window:

**Write the first name of an important mentor in your life
and your age when they most impacted you**

Example: Paul, 29

Fostering Independence



Fostering Independence: Case Study

I am working with a new undergraduate student, and I just can't seem to get along with her! I told her at the beginning of the semester that I thought we should have weekly meetings to talk about her progress, and she agreed. At our next meeting, I asked her to run through a list of the things she'd accomplished that week. She had no notes and seemed pretty unprepared for talking about her work in the level of detail that I expected. She's been canceling most of our meetings at the last minute -- either she doesn't feel well, or she suddenly remembers an assignment for another class that's due the next day! I know that she's doing the work, because at the few meetings she keeps, she has a lot to say -- but her progress on this project is very uneven, both in time taken and in quality, and I'm often forced to suggest that she redo crucial pieces. I fear these critical meetings leave her demoralized and less interested in accepting guidance from me, but I don't know how else to get her to understand that she needs my help.

In the questions box, please share your initial reaction to this case study.

Fostering Independence: Questions to Consider

- How do you define independence?
- What does independence look like for:
 - Junior undergraduate?
 - Senior undergraduate?
 - 1st graduate students?
 - 3rd year graduate students?
 - 2nd year post-doctoral scholar?

What are the concrete indicators that a student is on the path to independence? Would your list align with your mentees?

- How do you convey to your mentees what level of independence you are expecting from them at each stage?

Fostering Independence: IDPs

What is an Individual Development Plan (IDP) ?

A planning and a communication tool that allows your mentee to identify their research and career goals and to communicate them with you, their mentor team, department chairs and advisors

Example IPD template

Goals	Competencies & Skills	Activities & Experiences	Assessment of Progress	Support People and Their Roles
Long-term 1.				
Intermediate-term 1. 2. 3.				
Short-term 1. 2. 3.				
Immediate 1. 2. 3.				

Poll: What is your familiarity with IDPs?

1. Currently using IDPs with my mentees
2. Have used IDPs in the past
3. Have heard of IDPs but have not used one
4. Have not used an IDP but have regular discussions with my mentees about career plans
5. Have never heard of an IDP and do not regularly discuss mentee career plans

Example IDPs

[Website: mentoringresources.ictr.wisc.edu](http://mentoringresources.ictr.wisc.edu)

Science Careers MyIDP:

An interactive website guides users to create an IDP through skills, interest, and value assessments, as well as goal and timeline development.

<http://myidp.sciencecareers.org/>

Paper-based guides & templates:

[IDP from the University of Minnesota](#) (PDF)

[IDPs from the University of Pennsylvania Biomedical Graduate Studies](#)

[IDP from the University of Pittsburgh](#) (PDF)

[IDP from the University of Wisconsin](#) (PDF)

[IDP from Vanderbilt University](#)

[Lab planning document from Yale University](#) (PDF)

Growth Mindset



Poll: Please rate your agreement with the following statement:

You have a certain amount of intelligence, and you can't really do much to change it.

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

Growth Mindset

- The idea that intelligence is not fixed (the brain is a muscle), and knowledge and skills can be gained with effort and practice.
- Students who maintain growth mindsets tend to view intelligence as malleable and something that can be improved, while those with a fixed mindset believe intelligence is relatively unchanged by experience.

Consider:

“ I can’t complete this skill *yet*, but if I work hard and use resources available to me, I will succeed”

Versus

“Your intelligence is something about you that you can’t change very much”

Growth Mindset

- Fixed mindset more likely to experience stereotype threat and lower performance (Goff, Steele, & Davies, 2008; Sawyer & Hollis-Sawyer, 2005)
- Growth mindset “mind like a muscle” higher semester grades, better math test performance (Aronson, Fried, & Good, 2002; Good, Aronson, & Inzlicht, 2003; Good, Rattan, & Dweck, 2007)

Growth Mindset

Mentors help mentees develop a growth mindset in three distinct ways:

- 1) Cognitively
- 2) Socially and emotionally
- 3) Identity development.

Two strategies to help your mentee develop growth mindset:.

- Model having a growth mindset. Share your own experiences with adapting a growth mindset with your mentee.
- Teach mentees about growth mindset and the importance of having a growth mindset in graduate school
 - 7 minute video from Carol Dwek <https://youtu.be/isHM1rEd3GE>
 - <https://www.insidehighered.com/blogs/gradhacker/fixed-vs-growth-mindsets>
 - <http://mindsetonline.com/changeyourmindset/natureofchange/>

Example ideas from resources on previous slide

1. **Learn to hear your fixed mindset “voice”** - for example, do you ever say to yourself “I am only as good as my achievements”?
2. **Recognize that you have a choice** and that admitting that you are struggling doesn’t mean you are inadequate
3. **Talk back to your fixed mindset with a growth mindset voice**, saying things like “With effort I can do something I find difficult and it can get easier”
4. **Take the growth mindset action** - for example, putting myself in a new situation that is uncomfortable could also mean I am learning

Mental Health: Mentoring and Resources



Poll: How prepared do you feel to deal with undergraduate students who experience mental health issues?

1. Very prepared
2. Somewhat prepared
3. Underprepared
4. Very underprepared
5. Extremely underprepared

Scenario

Student x has been showing up late to lab. He is distracted, quiet and seems disengaged in lab meeting. He has also missed several deadlines that the two of you had previously set.

In the Questions box, write a question you could ask this mentee to figure out what is going on.

Approaches

- ▶ Try to get to the underlying cause of the issue by asking questions
 - ▶ Focus on seeking to understand, not prematurely making attributional assumptions about behavior
 - ▶ Think about what questions can “draw out” information
- ▶ Try putting yourself in your mentees shoes, asking what would help you in this situation
 - ▶ Empathic understanding -- not same as sympathy
 - ▶ Consider the impact of personal factors, such as mental

“R & R”: Recognizing and Responding to student personal factors

College-going populations have similar mental health concerns as the general public:

- ▶ Mood disorders followed by anxiety disorders most commonly treated at college counseling centers. Increase in psychiatric medication as well.
 - ▶ 52.7% felt things were hopeless, 39.1% felt so depressed that it was difficult to function in past 12 mo (American College Health Assn survey, 2016)
- ▶ Survey of 2279 graduate students from 234 institutions indicated that 41% had anxiety and 39% reported depression. Strong mentorship correlated significantly with less anxiety and depression. (Evans *et al* 2018)

“R & R”: Recognizing and Responding to student personal factors

75% of all mental health conditions begin before age 24 which is why college is a critical time (National Alliance on Mental Illness <https://nami.org/collegeguide>)

Good News!

- ▶ 65% of counseling center clients said that counseling helped them remain in school
- ▶ 64% said that counseling helped improve their academic performance

What can YOU do to help students?

“R & R”: Recognizing and Responding to student personal factors

Things to consider

- Be an attentive, supportive mentor
- Do not ignore out-of-ordinary, strange, or inappropriate behaviors.
 - Invite student to talk with you at some appropriate time; in private (health privacy laws).
 - Be sensitive and not callous.
 - Do not make judgmental comments, criticism or evaluation of acts.
 - Talk in confidence and listen carefully; ask open ended questions.
 - Be direct, ask the student if they have a problem s/he would like help in addressing.

“R & R”: Recognizing and Responding to student personal factors

- Emphasize the importance of exercise, sleep and diet.
- **Refer, refer, refer:** have names/numbers of your campus resources available, including emergency & after hours
- Always offer to help them make contact with someone who can help.
 - a. Be aware of concerns about being stigmatized, judged
 - b. Reassure the student that therapists at student counseling work with people with a wide range of concerns

Additional Resources and information for Mental Health

Useful resource: “College and Your Mental Health”

<https://nami.org/collegeguide>

Evans, T *et al* (2018). Evidence for a mental health crisis in graduate education. *Nature Biotechnology* 36 (3).

What topics would you like addressed in the final webinar in April?

1. Assessing understanding
2. Promoting professional development
3. Equity and inclusion
4. Aligning expectations
5. Work-life integration
6. Other - please list topic in the questions window

Acknowledgements

Monica Plisch
David May
Leah Nell Adams
Melissa McDaniels
Angela Byars-Winston

You!



UNIVERSITY OF WISCONSIN
Center for Women's
Health Research

