

Finding and Training Your Advisor

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Pre-QUIZ: TRUE or FALSE

1. There is no such thing as an ideal mentor.
2. Success depends on mentor & mentee.
3. Every research advisor is a mentor.
4. A role model is a mentor.
5. My research advisor is my boss so I should take their advice.
6. I should continue to work with my advisor despite being miserable and making no progress because the other students are doing fine with him/her.
7. I am in good hands if I have one good mentor.
8. Thank goodness, there is a well established mentoring plan that will work for all students.
9. I might have to balance faculty world reputation for an advisor who is a really good mentor.

Finding Your Advisor

The nicest person?

The only person matching your research interests?

A woman?

The oldest and wisest person?

The youngest and most energetic?

A great teacher you just had in class?

The funniest faculty?

The faculty with no family?

The professor who likes to go shopping?

Research on Mentoring

Research shows that ***those who are mentored achieve greater career advancement and higher work satisfaction than those who are not mentored.***



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Who's Most at Risk?

- Students
- People working in jobs considered atypical for their gender
- First generational professionals
- ... and others



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**Did you know...
that faculty are not taught
how be a good mentor?**

What Should a Good Research Mentor do?

Teach YOU

- **Basic research skills**
- **Tactical planning**
- **Strategic planning**

AND Foster **YOUR** career

*A PhD program is an **apprenticeship**.*



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True/False Self- Reflection

1. The nicest (easiest) faculty member in my research area may not be the best mentor for me.
2. My research mentor needs to give me lots of positive feedback and not upset me with negative feedback.
3. My mentor should be the most well-known, high-powered faculty member in my research area despite being too busy to meet with me.
4. My mentor needs to be knowledgeable, active, and well-respected.
5. I'm willing to change my research area so I have financial support and a strong mentor to succeed.
6. I prefer only one mentor/advisor to avoid conflicting advice from different perspectives.



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Finding a Research Advisor & Good Mentor: The Process

Identify your department's typical process:

- **At admissions time:** each faculty admits students specifically to work with them
- **After at school:** students admitted without assigned research advisors.
 - Faculty identify good students from classes
 - Faculty require trial period through independent study project
 - Students identify prefs and approach faculty
 - Some combination



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Finding a Research Advisor & Good Mentor: *Research It!*

- Talk to several potential faculty mentors
- Talk to students who have worked with that faculty mentor
- Determine how the faculty mentor's alums have fared
- Take classes from them
- Do a small independent study project with them
- Consider funding consequences – RA, TA, ...?



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Faculty Advisors have different styles of apprenticeships.

Different Apprenticeships

Push me off a cliff and
see if I land on my feet.

After I land, give a little
redirection, and then give
another big push.



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Different Apprenticeships

Teach me how to rappel first:

- Start with a “relatively” well-defined task.
- Discuss the problems that arise and encourage me to think of solutions.
- Help direct my search for solutions.
- Revisit task and view from a larger perspective
- Widen the problem and repeat

Provide less guidance with each iteration.



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Different Apprenticeships

To the student, sometimes

“Teach to Rappel First”

feels like

“Pushing off a cliff”!



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What to do then?

If you are stuck...

Break down the problem.

Ask if decomposition seems appropriate.

Agree on what to tackle next.

Repeat as necessary.

Divide and Conquer!



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**A Little Secret:
Sometimes you need to Train
Your Research Advisor**

Managing Research Meetings

- Meet regularly – don't cancel meetings!
- Go prepared:
 - Written Agenda (even provide a day ahead!)
 - Work products to review/discuss
 - Organize/Maintain your progress so far (the big picture as a powerpoint presentation)
 - Major components of a problem
 - Current approaches
 - Issues that need to be addressed
 - Alternative research directions



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Managing Research Meetings

- Lead the meeting discussion:
 - Review accomplishments
 - New definitions, classification, related work, understandings, progress on infrastructure, experiments,...
 - Discuss problems/alternatives
 - Show explicit examples, data
 - Review your overall big picture (powerpoint)
 - Agree on next steps
 - YOU propose the next steps
 - Revise with advisor
 - Agree on goals for next meeting
 - Write up meeting notes and share with advisor



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Keeping Good Records

- The big picture
- Meeting agendas and notes
- Progress, ideas, questions, concerns for next meeting agenda
- References to find and read
- Notes on readings
- Potential future directions to pursue (review and reorganize regularly)
- ...

Online research space shared with advisor



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Being Assertive as a Mentee

- Discuss longer term goals and strategies
- Discuss your strengths and weaknesses
- Ask for information/resources – classes to take, how to find a topic,...
- Ask for specific training – elevator talk, reviews
- Ask to be nominated for awards
- Ask to go to conferences/workshops
- Ask for meetings when more needed



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Being Assertive as a Mentee: Some Questions to Ask

Professional behavior

Ethical expectations

Authorship, conflict of interest, duplicate submissions, resubmissions, etc.

Determining your goals

E.g., gov't/industrial lab, teaching college, research university

How to position yourself to achieve your goals

Matching your thesis to your goals

How to look for and find a job

Balancing life and career after graduation

...



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Being Assertive as a Mentee in Research Discussions

Develop your ideas and propose solutions

If your advisor disagrees, try to understand why

If you don't understand why, try to gather evidence to support your theory

If it still looks promising, try again to present your ideas

- If your advisor still disagrees, ask for advice on how to learn more or what you need to do to make a convincing case

You are ready to graduate when you start to win most of these arguments!



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Determining when your apprenticeship is complete

Different for everyone.

Accomplishments will impact –

Advisor's reference letter

Job choices



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What if the mentor-mentee relationship is not working?

Several Options

1. Encourage your advisor to be the mentor you need: ASK for the support you need.
 - More feedback, career option discussion,...
2. Keep advisor, but find mentors elsewhere
3. ASK for a meeting with advisor to discuss situation frankly & agree on alternative approaches
 - Clear objectives with timeline, agree on what each will do, evaluate how it went
4. Consider changing research advisors
 - Easier to do earlier
 - Talk to other faculty about alternatives & funding impact
 - Fresh start with lessons learned vs time



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Like a parent, an advisor for life.

Be an Assertive Mentee

It is YOUR Apprenticeship!