Some Thoughts on Mentoring

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Mentoring an Undergraduate Student on a Research Project

- To be successful, consider the following
 - What are the required and desired outcomes of the project
 - What are the student's desired outcomes
 - What are your desired outcomes
 - What is the student's background
 - What are the limitations of the project, mentor, and student
 - How do we make these work together

Success and Failure

Failure

- As an undergraduate student, I was mentored very poorly
 - Graduate student treated me as an extra set of hands
 - If I didn't find something to do, then very often there was nothing to do
 - I did nothing
 - My impression of graduate students is that they sat around and read the newspaper, drank coffee, and played soccer
 - The few graduate students who were very successful were not my mentors
 - I was lost
 - Waste of time and money

Success and Failure

Success

- As a graduate student, I mentored a very successful student
 - My goal was that every moment she was in the lab, our team would be twice as productive as when I was alone
 - Always had a plan for what she would do on a daily basis
 - Gave her appropriate training and ownership of her part of the work
 - Provided proper direction
- We accomplished more than I could possibly accomplish on my own, even if I would have had twice the time

Project Outcomes

- If don't deliver required outcomes, project fails
 - Project outcomes; your desired outcomes; student's desired outcomes
- Mismatch in capability leads to failure
 - Mentor, project and student limitations lead to a preliminary roadmap
 - If any of these are inconsistent, you are starting out on the wrong foot -> will not succeed
- Proper planning is essential
- Suggestion
 - Plan yourself for what you think is necessary and appropriate for your project
 - Allow contingencies and changes of direction
 - Students are people, not robots
 - Difference between being a dedicated member or a team and having a hoop to jump through for a paycheck

Leadership

- Know your mentee
 - How mature
 - How confident
 - How capable
 - What motivates him/her
- Engage the mentee in the planning and evaluation of the project
 - A leader works with the team to determine the right thing to do, while a manager tells people to do the right thing
 - People like to be led
 - People generally don't like to be managed
- Outline expectations clearly
 - Which are absolutes, which are flexible

Leadership, cont'd

- Communication is essential
 - Make sure that the mentee receives regular and appropriate feedback on progress
 - Listen to the mentee and give thoughtful consideration to their input
- Establish trust
 - Mentee has to know that you are committed to the project success and to their success
 - Mentee has to know that you will respond appropriately to missteps and successes
 - Mentee has to know that your expectations are commensurate with their skills and abilities, and with the limitations of the program
 - If you tell them to figure it out for themselves, and they figure it out wrong, you can't beat them up for it

Leadership, cont'd

- Value your mentee
 - Bring your best effort to the relationship
 - Model the attributes that you wish the mentee to demonstrate
 - Remember that if the relationship fails, the project fails

Summary

- Successful mentoring is a process
- Keys
 - Planning
 - Thoughtful leadership
 - Commitment
 - Respect
- We live forever through the students we influence