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