REU Mentor Workshop: Case Study Discussion Notes

Case Study 1: Understanding

"I recently explained a new algorithm to my mentee. As I diagrammed it on the board, he nodded the entire time as if he understood every word I was saying. When I had finished with the explanation, I asked him to implement the algorithm in the programming language of his choice. I asked him if everything was clear and he said "yes". I asked him if he had any questions, and he said "no". When I checked with his progress 3 days later, he told me that he hadn't started the implementation since he did not understand the algorithm."

- What could the mentor do to improve this communication?
 - ✓ Mentor can establish a more trusting relationship
 - ✓ Give student a reference source and ask for a summary of the situation
 - ✓ Switch roles ask the student to teach it back to you after the first time
 - ✓ Separate topics into smaller tasks and more frequent checkpoints
 - ✓ Be thorough in teaching to mitigate misunderstandings
 - ✓ Theory does not equal implementation!

Case Study 2: Balancing a Heavy Workload

"This summer has proven to be very busy for me, and I am concerned that I am not paying as much attention to my mentee as I would like to. Currently, I'm working on writing a paper, preparing for a research-related trip, working on a few projects separate from my undergraduate's work, and mentoring my undergraduate. Needless to say, there are days that I feel like I am neglecting my student or giving him menial tasks to do that I need done. I am not sure how to balance my time spent helping my students and working on my other projects, which all require large pieces of time and a lot of attention."

- How to develop good time management skills?
 - ✓ Build a specific plan for mentee
 - ✓ Schedule specific and regular time for feedback from the mentee
 - ✓ Don't over commit your time and don't be afraid to say not to new commitments
 - ✓ Get in sync with a specific schedule and find personalize your productivity

Case Study 3: Mentee Independence

"An experienced undergraduate mentee is constantly seeking input from me on minor details regarding his project. Though we had regular meetings scheduled, he bombards me with several e-mails daily or seeks me out anytime I am around, even if it means interrupting my work or a meeting that was in progress. It was often the case that the mentee is revisiting topics that I have already discussed. This is becoming increasingly frustrating for me, since I know the mentee is capable of independent work (having demonstrated this during times when I was less available)."

- What are some steps that the mentor can take to address this situation?
 - ✓ Both mentor and mentee keep note books and list questions to bring to scheduled meetings
 - ✓ Ask mentees to spend time thinking about challenges before meetings and bring possible solutions
 - ✓ Remember to be patient and prioritize issues
 - ✓ Rethink how the evolution of progress and meaning of success