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Assignment 4

### An Interview with Professor Amer Diwan

I should note that Amer is my advisor, and I have worked for him for the better part of a year now. I asked him a few questions regarding his outlook on advising as well as his take on the PhD.

1) How do you know when a student is ready to graduate?

This question was actually answered much quicker than I had expected. Amer detailed mainly one criterion. The student must show, through his/her thesis an ability to drive research. He/she must be able to find new problems, focus work on solvable ones, and show, through deep understanding of the problem, that they are capable of bringing new techniques to light. By that, I mean the student should be able to take advantage of the research and give others insight as to how to take advantage of his/her work.

2) How / What can we (students) do to better our PhD program?

Amer has always encouraged me to attend the weekly colloquial in order to better understand the details and work of others, not only in our “small” university community, but also the field at large. He expressed frustration, both before and during this question, at the attendance during these talks.

3) How do you go about mentoring new students?

Amer, as I have realized, sets up his students with other, more senior students of his. The reason for this is two fold. First, his hope is that it allows the student to get engaged in research right away, as it allows for the student to piggyback upon on going work. Secondly, it allows the student to build a relationship with others in the lab, and makes explicit collaboration. Both of these help with the student's morale.

Secondly, Amer makes all students teach for at least one semester (when applicable) so as the student can see if he/she is interested in teaching or just research. He also stresses the importance of internships (research) and collaboration with others outside the university so as to build a personal community.

Thirdly, Amer also does not force ideas upon students. His research is broad enough, and funding is such that he lets the students pick topic areas that appeal to them. This means that the student will, most likely, work outside Amer's area of expertise, and thus forces the student to take a lead in researching that area. It also has the added benefit of allowing the student to be intrinsically motivated, as they have picked the topic area. Amer, and I agree, thinks this leads to better work.

Last, Amer likes to give his student space, after they graduate, in order to give the student time to develop into his/her own researcher – to find his/her own voice. He likes to come back and collaborate after a few years of a break, when applicable.