

# Tips for Graduate Study

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# What Grad School Is really Like?

- A lot of people think that grad school is just like a continuation of undergrad. But it's definitely NOT.

## In college

- Your main job is to **consume** knowledge.
- You study really general things.

## In grad school

- You're expected to **produce** the knowledge.
- You focus on something so specialized you can discuss it with literally two other people on the planet.

# Understand your field

- Read a few papers every week
  - Follow technology news to know where the world is going
  - Read outside your area as well
  - Develop critical thinking: identify both strong and weak points
  - Let advisor/colleagues know about interesting things you read

# Take ownership of your degree

- No one is responsible for getting your degree but you
  - Faculty set up opportunity, but it's up to you to leverage it



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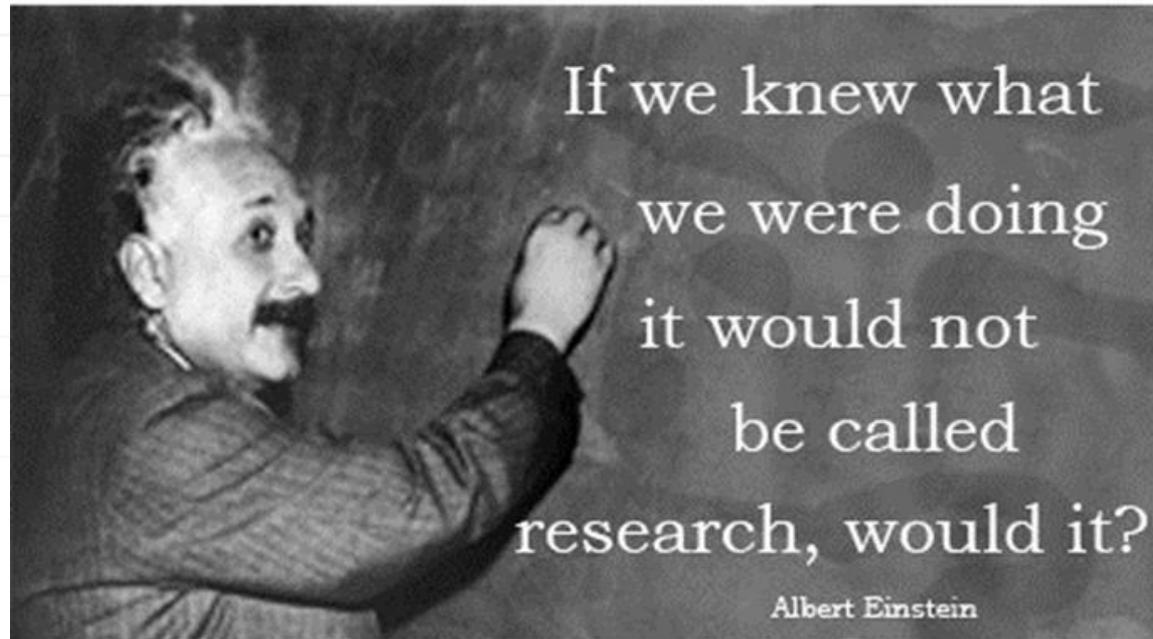
# Conducting research that makes a difference

- Always ask yourself: “what’s the novelty of my research?”
- Do follow
  - Your goals & interests; defining your interests in terms of your audience
- Don’t follow:
  - The money; the latest fad; what will get published; what others want you to do

# Patience and perseverance

- Satisfied with small gains.
- Learn from nonsignificance. Prepare to report results even if hypothesis fails.

“That's the nature of research - you don't know what in hell you're doing.” - *Harold "Doc" Edgerton*



# Mutual trust between student and advisor

- Remember the advisor/student symbiosis. Typically, what is good for advisor is good for student, and what is good for student is good for advisor.
  - Advisors work hard to get grants to support your work
  - You work hard to produce results that will enable new grants

# Communicating your results

- Present your study
  - Good chance to convince people that you did great research
  - Goal is to make audience read your paper and talk with you
  
- Write and publish papers in conferences/journals
  - “If you didn’t write it down, it didn’t happen”

“In Science the credit goes to the man who convinces the world, not to the man to whom the idea first occurs.” In: *Eugenetics Review* (April 1914 "Francis Galton") - *Sir Francis Darwin (1848-1925, English botanist, son of Charles Darwin)*

# Monitoring activities of leading research group in your field

- Identify leading research groups in your field
- Find out their recent research focus

# Research environment

- Large group can be a blessing
  - More resourceful in terms of interaction (now) and networking (future)
- Senior students can be very helpful to junior students
  - Experience sharing & encouragements
  - More tolerant to mistakes
  - More accessible

- “Being a graduate student is like becoming all of the Seven Dwarves. In the beginning you're Dopey and Bashful. In the middle, you are usually sick (Sneezy), tired (Sleepy), and irritable (Grumpy). But at the end, they call you Doc, and then you're Happy.”