Becoming a Successful Researcher

Tyler Ransom

University of Oklahoma

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Outline

- Coming up with research ideas
- Producing research that can be consumed by others
 - Strategic planning
 - Research tools
 - Getting and incorporating feedback
 - Steps to writing an academic paper

Coming up with research ideas

The ideal academic project

- Fits in the "adjacent possible": just beyond the frontier but still tractable
- Something that you are deeply interested in
- Something you are willing to spend hours and hours on

Reading as idea generation

- Can't know what's in the "adjacent possible" without reading
- Read academic papers, books, popular press, blog posts, tweets, listen to podcasts, etc.
- For academic lit reviews, most topics have a "handbook" chapter that outlines the main ideas of the corresponding literature topic
- Most of the time, ideas require "curing time" in your brain

Feedback from others

- Dissertation committee members can help you figure out what is a feasible idea
- You should also seek feedback from your classmates and others
- Non-economists often provide excellent high-level feedback

Getting ideas from others

- Ideas are not the limiting factor in the production of research
- The limiting factor is time
- If you walk up to a randomly chosen economist, they will likely have at least 10 ideas that they would like to work on "someday" but haven't had the time/inclination to
- If you share a research interest, this can be another source of ideas

Store ideas in a trusted system

- Your brain will be more likely to produce ideas if it is confident that past ideas won't get lost
- Come up with a dedicated system for recording research ideas
- This could be "low tech" in the form of a paper notebook, or "high tech" in the form of a Google doc or Trello board
- The point is to have a system so that the brain trusts you

Store readings in a trusted system

- When reading something, take notes in a system such that you'll be able to refer back to what the main ideas were and how they might relate to your topic
- Again, this could be as "low tech" or "high tech" as you like
- The goal is to not double your work (i.e. you don't want to have to re-read the article at the time of citation)

Producing research that can be consumed by others

Strategic planning

- Time is the most precious resource, so should be handled with most care
- I follow Cal Newport's strategic planning system:
 - Semesterly plan
 - Weekly plan
 - Daily time-blocking plan
 - Managing/automating all tasks using Trello boards (with separate boards for research, teaching, service/admin, free time, and reading lists)
 - Setting lifestyle goals alongside career goals

Semesterly plan

- This is a high-level plan that covers big accomplishments that you'd like to accomplish that semester
- e.g. "general exam" or "finish draft of manuscript" or even "complete data section of manuscript"
- I usually put no more than 6 items here, and I usually only accomplish 3 or 4
- Input from your supervisor(s) can be instrumental in helping you identify what you should be focusing on that semester
- You should also set aside time to acquire new methodological tools

Weekly plan

- On a weekly basis, refer back to the semesterly plan to ensure adequate progress is being made on each goal
- Then, identify "big rocks" in your week and put those on your calendar
- Then start filling in free spots with "appointments" to work on smaller goals that work towards your semester-level goals
- I keep track of ongoing commitments with Trello cards, and each week I review which cards will be due in the coming week and put these into my weekly plan

Daily plan

- Each day, divide your work hours into 30-minute increments
- Assign each 30-minute increment a job ("lunch" could be a job...)
- Then do your best to stick to that schedule
- Try not to work with your email, social media, or other distractions continuously open
- Rather, put "check email" as one of the 30-minute available blocks, perhaps 2x or 3x each day

Allowing for mistakes in the plan

- Research is messy and rarely do things go according to plan
- You should recognize this and not wallow in despair if things go off the rails
- The important thing is to keep pressing forward
- Japanese proverb: *Nana korobi ya oki* ("fall down seven times, stand up eight")

Research tools

- Tools will enhance your productivity if used properly
 - Trello for task-tracking
 - GitHub for tracking changes in and ensuring replicability of code
 - Many citation management tools that automate the process of producing bibliographies or tracking down references
 - ChatGPT and GPT-4 are new AI tools that have general applicability to many "knowledge work" tasks
- You avoid mastering these tools to your detriment
- Mastering a tool takes time but usually has compounding benefits

Getting and incorporating feedback

- Research is a collaborative endeavor
- Feedback $\uparrow \Rightarrow$ Research quality \uparrow
- Sources of feedback:
 - presentations (in-class, brown bag, conferences, general exam, final defense)
 - meetings with advisors
 - Al bots
- You shouldn't be afraid of asking for feedback
- But you should also be respectful of others' time

Presentations

- Research is communicated through writing and oral presentation
- The more you practice giving presentations, the better you'll be
- Better to make mistakes in a low-stakes environment
- Better Presentations is a book that details how to present better
- Always remember: you are the expert on what you're presenting!



- It can seem overwhelming to write a paper
- The key is to break it down into manageable tasks
- Chronological steps to writing a paper are different from how the reader consumes the paper (see next slide)

Chronological steps to writing a paper

- 1. Brainstorming / research question
- 2. Broad literature review (to see if idea is novel)
- 3. Data
- 4. Empirical model
- 5. Identification & Estimation
- 6. Results
- 7. Introduction
- 8. Abstract
- 9. Conclusion
- 10. Proofreading/polishing (at least 10-30 drafts)

Managing multiple sources of feedback

- Often, three of your advisors will each give you three wildly different pieces of feedback for the same idea
- How to triage these? Use your best judgment!
- Recognize that you've been thinking of this problem for much longer than your advisors have
- Much of research is a matter of taste; as long as what you're doing is not objectively wrong, go ahead with it

What to do when you're stuck

- Research is difficult; if it weren't, everyone would be doing it
- So what should you do when things aren't working?
 - 1. ask a classmate if they have any ideas
 - 2. ask an AI bot
 - 3. visit advisors' office hours (most of the time students don't show up)
 - 4. write an email to your advisor, but don't send it! many times just writing out what your problem is will allow your mind to figure out what might be going wrong

Conclusion

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- It's difficult to transition from being a consumer to a producer of research
- Three pillars of success:
 - 1. project management and strategically planning your time
 - 2. high-frequency feedback from others (including AI bots)
 - 3. attitude of perseverance and resilience in the face of failures
- Finally, don't neglect your personal life!