Dijkstra’s three rules.

My experience as a grad student at Texas: sink or swim.

My approach here:

“Learning how to do research” really means learning how to ask the right questions. If you are in grad school, you already know how to answer hard questions.

Your experiences?
Finding a Thesis Topic

- Find a research area that suits you, gives you joy.
  - Classes help here.

- Read voraciously in chosen area.
  - Get a sense of where the area is heading.
  - Look for open problems in papers.
  - Pay careful attention to conference talks and keynotes and think of how you could extend that work.
  - Schedule sufficient think time.
    - Can get boring, so write down ideas or discuss them with someone.

- Concentrate first on paper topics.
  - Your dissertation topic will probably take care of itself.
Finding a Thesis Topic (Cont’d)

- **Have some tenacity.**
  - Giving up is the easy way out.
  - I tell my students: The “sin” lies not in failing to produce results, but in failing to try to produce results.
  - When the results aren’t coming, continuing to try is hard.
    - Everyone goes through this.
    - People who succeed at research don’t give up!

- **How do you snatch victory from the jaws of defeat?**
  - Try redefining the problem, talk to people, make some simplifying assumptions to get started,…

- **Your experiences in finding a topic?**