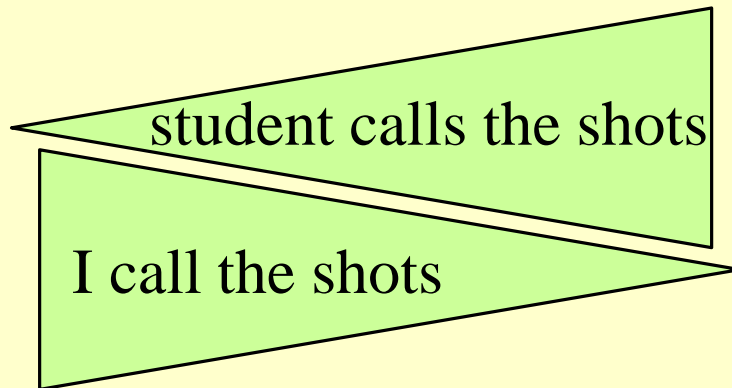


How To Teach Research

- 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?