Strategies for Engaging...
Large and Small Classes

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Instruction that engages:

- increases student attention,
- increases motivation,
- increases practice of higher-level critical thinking skills
Strategies for Engaging Large & Small

This session considers various means to increase student engagement in your classroom, using examples from a large-enrollment UT Austin Signature Course.
Questions to ponder …

Left half of ballroom
• How does the Greenhouse Effect work?
  • THINK – 30 seconds
  • WRITE – 30 seconds
  • SHARE – 2 minutes

Right half of ballroom
• How can Jay Banner’s appearance be improved?
  • THINK – 30 seconds
  • WRITE – 30 seconds
  • SHARE – 2 minutes
Principles of Effective Instruction

• UT-Austin’s Academy of Distinguished Teachers

www.utexas.edu/faculty/academy/POI
UGS303 “Sustaining a Planet”

- Learn student names, use photo roster
- Hands-on demos
- Modern cultural references - Music, singing - non-gratuitous
- Flipped classroom
- Think-pair-share & Cold calling
Think-Pair-Share

- Students are actively thinking about key points during your lecture, instead of taking notes and trying to think critically later.
  - Students think for themselves;
    - then they process it by writing, which forces them to process the info more;
      - and then they think further by articulating it to their neighbor and hearing feedback on what they’ve articulated.

- All in 3 minutes!
Cold Calling

- Do it with impunity; do it early and often. Establish it as part of the culture of the course.
- When I was in college …
- When I began teaching at UT …
- Think-pair-share sets up Cold calling.

Every student has thought about your question, written about it, and talked about it with her neighbor. They are supremely ready to share with you and with the class.
Cold Calling – Guidelines
(Duke. pers comm)

• Don’t abandon answerer
• Respond to answers from other side of the room
• Ask another student what they think of the first student’s answer

Think pair share – variations on a theme …
The Edwards Aquifer - a local example

- What controls the blue curve?
- What controls the red curve?
- Will the red curve cross below the blue curve between now and 2050?
Other Strategies

• *Hot Science – Cool Talks*

  August 28th: If It’s Unsustainable, Why Does it Feel So Good?
  
  [Link](www.esi.utexas.edu/hot-science-cool-talks/)

• Environmental Science Institute and Broader Impacts on your research grants

  [Link](www.esi.utexas.edu)
  [Link](www.utexas.edu/faculty/academy/POI/)