Pathways to Becoming an Effective Teacher

Gaining Experience, Learning Best Practices, Getting Started

Lessons Learned

What lessons did you take away from yesterday's afternoon sessions that will help you become a more effective educator?

- Take 2-3 minutes to share at your tables
- Raise your hand if you are willing to share verbally
  - We'll hear from 3-4 people

Gaining Experience

- Look for opportunities to teach
  - Guest lecture
  - TA
  - Adjunct
  - Visiting Positions
  - Informal/Outreach
  - Other ‘stepping stones’
- Practice builds confidence and skills
- Remember, you are the expert

Browse Key Resources

- Teaching Materials
- Workshops
- Intro Geo
- Career Development
- Diversity
- K12
- Two-Year Colleges
- Departments

Search Multiple Earth Education Websites

Teach the Earth is a portal to thousands of resources from dozens of Earth Education websites.

Search

Transitioning to online teaching? Get help here. »

Explore Themes

Course Topics
Atmospheric Science
Biogeoscience
Ecology
Environmental Geology
Environmental Science
Geochemistry

Incorporating Societal Issues
Climate Change
Complex Systems
Energy
Ethics and Environmental Justice
Geology and Health
Hazards

Teaching Topics
Biocomplexity
Deep Earth
Early Earth
Earthquakes
Hydraulic Fracturing
Minerals

Enhancing your Teaching
Affective Domain
Assessment
Course Design
Data, Simulations, Models
Geophotography
Google Earth

News & Events

Workshops, Webinars and More »

Mathematical Society, American Statistical Association, Mathematical Association of America, Society for Industrial and Applied Mathematics

▶ Show more

Sustainability Site Guide »

Climate Change Site Guide »

Effective Teaching

- Think about your experiences in higher education, what do you recognize as effective teaching strategies? Ineffective?
- Consider both virtual and face-to-face

➢ Take ~2 minutes to reflect
➢ Share ideas to the whole group (we'll take notes)

Effective/Ineffective Teaching

- Facilitating discussion
- Think-pair-share
- Engaging slides (embedded questions, etc.)
- Muddiest point feedback/feed-forward checkins
- Hands-on, minds-on
- Frequent feedback
- Retrieval questions
- Learning journal
- Jamboard question - anonymous sticky note answers asynchronous online participation

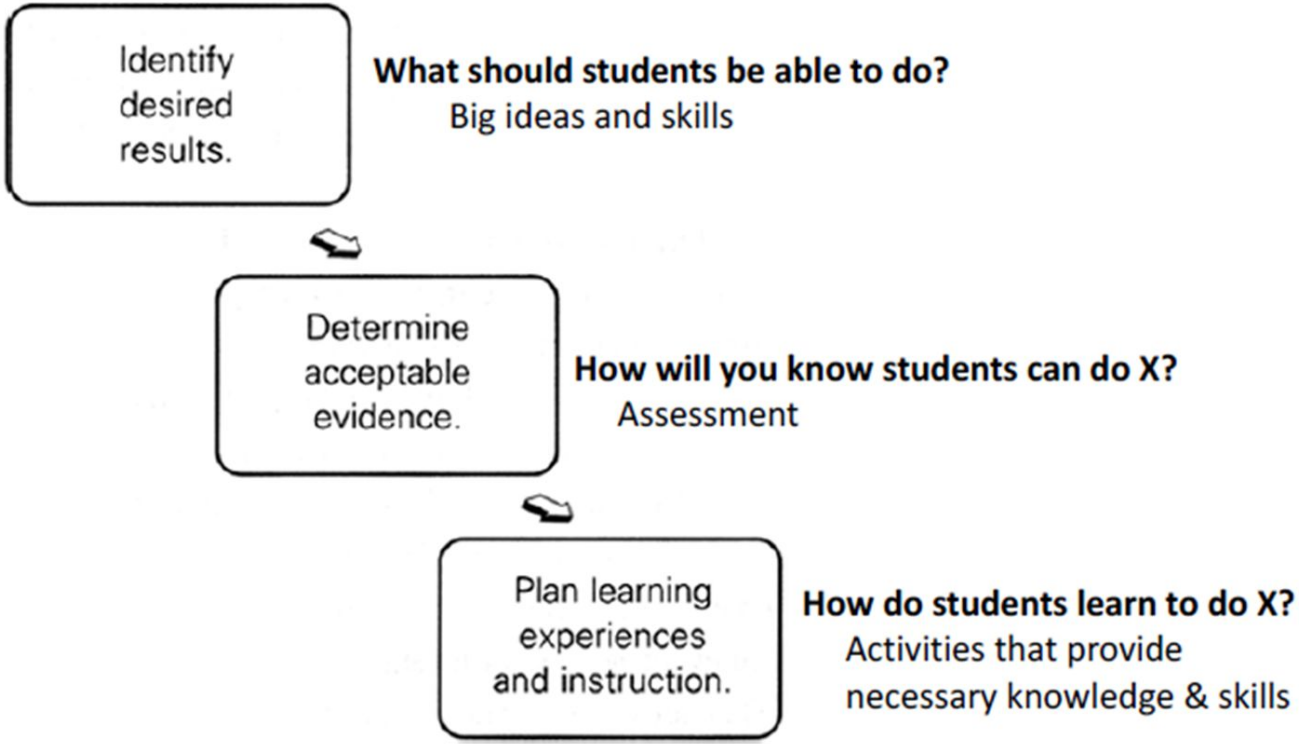
Getting Started

How would you start developing your first course?

- Decide the topics and activities of the course?
- Decide the assessments of the course?
- Decide the objectives of the course?
- Keep your fingers crossed someone gives you everything you need – the plug and play model?

Understanding by Design

Wiggins & McTighe (1998)



Examples (note the verb)

- Design and complete a semester-long research project that is both quantitative and original.
- Use a variety of scientific tools to measure coastal and water column properties.
- Make reasoned predictions based on scientific data.
- Explain how feedback loops can stabilize or exacerbate change in the ocean.
- Distinguish between gradual, oscillating, and episodic variability in the ocean.
- Compare multiple natural and anthropogenic influences on ocean change.
- Evaluate coastal hazards and resources of the the U.S. Northeast, Gulf, West, and Caribbean coasts and assess their relative risk resilience.
- Apply systems thinking to make connections between marine science, history, policy, and literature, in the broad context of sustainability.

Let's chat!

Discussion Panel and Breakouts

By Institution Type:

1 - Sue: Minority-serving institution faculty (MSI)
2 - Lisa: Primarily undergraduate institution faculty (PUI)
3 - Lynsey: Community college faculty (2YC)
4 - Brendan: Teaching track positions
5 - Gary: Large university faculty (R1)

We'll do two ~25 minute rounds