TEACHING INNOVATION: TERTIARY LEVEL

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13th-14th Century Education
20th-21st Century Education

Pharmaceutical lecture hall. *Wisconsin Historical Society*

Lecture hall. *University of Georgia*
Why Innovation Fails (or Never Begins)

- Time and Money
- Physical Infrastructure
- Student And Faculty Resistance
- Too Much Too Quickly
Why Innovate?

- Increase Access and Equity
- Promote Learning Research
- Develop Creative Thinking
FOUR PRINCIPLES TO GUIDE INNOVATION
“The best solutions [are] those invented at the micro level by teachers themselves.”

Béchir Allouch – Professor of Technology at the Virtual University of Tunis and president of the Tunisian Association for E-Learning
An Small Innovation Example

“In the current study the procedure consisted of pausing for 2 minutes 3 times during each 45-minute lecture. During the pause, subjects formed dyads and discussed lecture content (e.g., asked each other for clarification of concepts or caught up on notes). No instructor-subject interaction occurred during the pauses.”
Ask the students to take five minutes in silence to reflect upon a simple question: How has corruption affected you or someone you know? Once you have decided on an anecdote to share, please jot down on paper three things: first, the basics of what you wish to share with the class; second, how your real-life example of corruption affected you or your acquaintance; and third, upon reflection, what is corrupt or corrupting about the example you have described.
Ask all students to identify behaviours in their jurisdiction that may be criminalized in their country but not in others (for example, same-sex marriage, sex work, drug use, abortion etc.). At the start of the class, divide students into small groups to brainstorm the issue, and use flip charts (or white boards or paper) to report back. This exercise can form the basis of a class discussion about the factors that contribute to the imposition of criminal justice punishments (and/or custodial sentences) for some behaviours, and not for others. This exercise should take no more than 10 minutes.
Research Should Drive Teaching Innovation
The Power of Prior Knowledge

- Untested Content: Exam Scores
- Pre-Tested Content: Exam Scores
The Power of Prior Knowledge

- “Unsuccessful attempts to solve a problem encourage deep processing of the answer when it is later supplied, creating fertile ground for its encoding, in a way that simply reading the answer cannot.”

Make It Stick: The Science of Successful Learning
Tertiary Teaching and Learning Centers

A Center for Teaching and Learning can filter pathways to innovation from the rapidly expanding body of research on teaching and learning in higher education.

Resources and Models

- Vanderbilt University (USA)
- Carnegie Mellon University (USA)
- American University of Cairo (Egypt)
- University of Cape Town (South Africa)
- National University of Singapore (Singapore)
- Universidad del Norte (Colombia)
Students Should Be Partners in Innovation

- Invite Student Creativity
- Make Innovation Transparent
- Provide Feedback Opportunities
Student Partnerships in Creating the Learning Environment

- How should students behave in the classroom? Are they allowed to eat, to use electronic devices, what language can be used during class deliberations? How should a lecturer behave when dealing with class interruptions, when answering students' mails, when addressing questions during classes?
Pedagogy Should Drive Technology

• What teaching problems are we trying to solve?
• What objectives are we trying to accomplish?
• What technologies would help us?
0 = $ 0, I'd do it for free
1 = $ 100
2 = $ 10,000
3 = $ 1,000,000
4 = I would not do this for any amount of money

Accept a plasma-screen television that a friend of yours wants to give you. You know that the friend got the TV a year ago when the company that made it sent it to your friend, by mistake and at no charge.

Accept a plasma-screen television that a friend of yours wants to give you. You know that your friend bought the TV a year ago from a thief who had stolen it from a wealthy family.
How much does your administration value and support innovative teaching on your campus?

Teaching innovation is highly valued and supported.

Teaching innovation is valued but not supported.

Teaching innovation is neither valued nor supported.
What do you do when resources are low?
The “innovation” of classroom polling can be done without the technology.
But does it take too much time?

From Schell (2012)

- set context: 5 mins max
- pose question: 1 min
- student thinking: 1-3 mins
- baseline data: 1-10 seconds
- peer discussion: 2-5 mins
- post discussion data: 1-10 seconds
- closure: 5 mins max
Research on Peer Teaching

“When a learner shares ...with his peers, he will not only get new cognitive ideas. He will also gain confidence and begin to recognize the progress he has already made.”
When Peer Review Does Not Work

The instructor asked students to sit in pairs and answer questions such as:

- Does the essay have a main idea?
- Is the main idea clear and effective?
- Are the ideas connected to each other clearly and logically?
- Does the writing address the assignment?
When Peer Review Works

- Students received assignment rubric
- Students read model essays
- Students used rubric to evaluate model essays
- Students then worked in pairs reading and reviewing each other’s writing

Students engaged in peer review:
- Received useful feedback
- Improved their writing
- Learn to become self-directed
Everyday Student Engagement

- Pre-class Readings
  - Personal Writing: Example of Discrimination Witnessed or Experienced
- Paired Discussions: Extrapolate Principles
- Whole-Class Discussions
- Film Viewing
- Reflection Paper: Effects of Discrimination Based on Film
What is the best example of a small but effective teaching innovation you have seen or experienced?