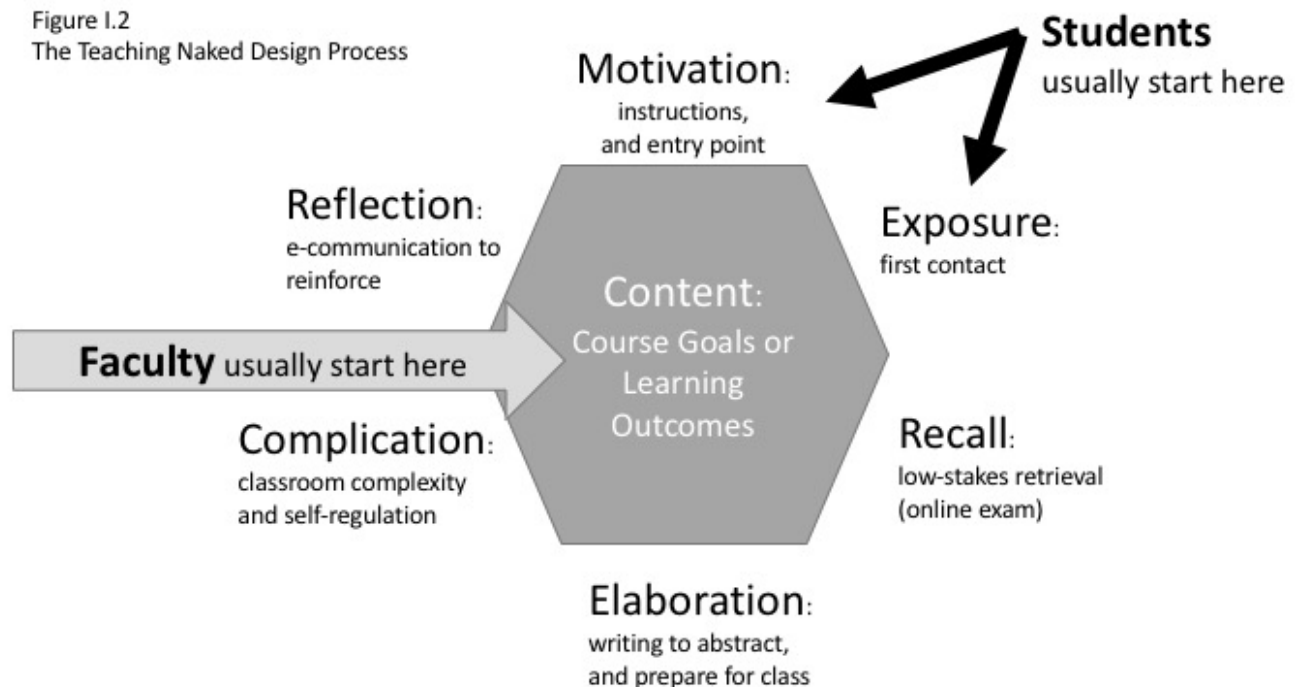# teaching naked

José Antonio Bowen

TNT Workshop: A Practical Guide to Designing Better Classes

Special Discount Code: Save 30% when you buy *Teaching Naked Techniques* at Wiley.com and use the **discount code: TNT30**

Make It Stick: The Science of Successful Learning. (Brown, P. C., Roediger, H. L. & McDaniel, M. A (2014) Belknap Press: Exposure, rereading, highlighting and massed practice = false fluency NOT learning)

- **Concrete and Personal** (matters to me, examples)
- **Knowledge is Necessary** (but not sufficient)
- **Retrieval and Self-Testing** (online exams, games)
- **Elaboration** (connections, analogies, writing)
- **Abstract** (extracting rules, larger context, mental models)
- **Failure** (add difficulty, attempts before solutions, feedback)
- **Interleaving** (varied practice, space out practice)

Teaching Naked Design Process

Figure I.2
The Teaching Naked Design Process

Students usually start here

Motivation: instructions, and entry point

Exposure: first contact

Reflection: e-communication to reinforce

Content: Course Goals or Learning Outcomes

Faculty usually start here

Recall: low-stakes retrieval (online exam)

Complication: classroom complexity and self-regulation

Elaboration: writing to abstract, and prepare for class

A. Learning Outcomes
- write a learning outcome and design a module

Remembering (know, define, repeat, describe, identify, recall, list, tell, locate match)
Understanding (comprehend, classify, convert, explain, summarize, predict, discuss, compare)
Applying (demonstrate, modify, arrange, solve, relate, apply, examine, classify, illustrate)
Analyzing (infer, estimate, order, separate, subdivide, distinguish, contrast, categorize)
Evaluating (critique, justify, discriminate, support, conclude, judge, verify, assess, argue)
Creating (synthesize, design, formulate, revise, construct, compose, invent, imagine, propose)

> *(Bloom, B.S.,Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain.* New York: David McKay Co Inc.1956,)Taxonomy revised by Lorin Anderson. Designed for higher education, it is now pervasive in almost all curriculum design—even dog trainers use this.)

High Impact Practices:
- Transparency
- Common Language - Critical Thinking/Mindful Learning
- Rubrics - Break it Down

B. Online Content and First Exposure
- identify discipline-specific online content or organize a podcast

1. Finding Tools and Content in Your Discipline
- Lectures & Demos: utubersity, iTunesU, Khan, YouTube, OpenYale, MITOpen
- Other Content: Merlot.org, Google, Wikipedia, universities, governments
- Courses: Udacity, UoPeople, Coursera, EdX, OpenYale, MITOpen

2. Podcasts
- Videos of lectures are a type of podcast
- Real podcasts are better: *teach to the many, not to the middle*.
  - use chapters: organize and give students more control
  - time is no longer an issue
  - use multiple, redundant and alternative examples
  - add something for advanced students (the others can skip
  - recycle
- Start Small

3. Games
- New Games
- Free Games: Merlot, SeriousGames, EducationArcade, iTunes (apps) GameScene, TheProblemSite, FreeOnlineGames, GameNode, MiniClip

C. Instructions and Entry Point
   • find an appropriate entry point and write conditional instructions

1. Motivating Reading
   • Consider the length of reading assignments in relation to your learning outcomes.
   • Tell students *why* they are reading in advance.
   • Analyze the opening *before* you assign the reading.
   • Tell students in advance why the ending is important.
   • Email students between classes about specific passages.
   • Encourage students along the way using twitter or email.
   • Require students to reflect on the entire reading in writing before class
   • Give a reading quiz before every class
   • Structure class activities or assessment to reward those who did all of the reading.
   • Avoid punitive measures.
   • Coordinate courses across the curriculum.

2. Using Summary Sites
 • Know and understand the competition: sparknotes, Wikipedia, CliffsNotes,
        PinkMonkey, gradesaver, enotes, bibliomania.
   • Convince students to read just a few chapters first.
   • Ask students to read the summary first and discuss how it changes the experience.
   • Ask students to compare summary sites.
   • Make your assignment more about style or character than plot.
   • Ask an unusual question (that won't be answered by the summary)

3. Entry Point
   • Start with what matters to students,
        then connect with what matters to you

   • Motivation and Contemplation
        "Find something interesting to you…"
        "Look for different perspectives…"
         "Stop, linger, and imagine…"

4. Conditional Instructions -- Teach with uncertainty
   • This could be the best solution, vs. This is the best solution
   • How could you design a bra that only opens if you are in love? vs. Could you?
   • What would be required for a nasal contraceptive to work? vs. Is it possible?
   • Usually you want the patient lying down, vs. First, get the patient to lie down.
   • The current theory is… vs. This is…

D. Online Exams to Improve Student Preparation for Class
   • formulate sample test questions using Bloom levels
   • Create more class time
   • Use your LMS
   • Improve your preparation
   • JiTT

Question Format:
Question 1 (Analysis Level)
   The following are all true statements.
   Which are most likely to be used by Dems/Repubs to support government policy?
   Check all that apply. Partial credit is avail
   • Government spending creates jobs.
   • Tax cuts stimulate job creation.
   • Uncertainty is bad for business
   • A large debt can hurt the economy.
   • Government spending cuts can hurt the economy.

Which are fact, opinion or judgement?
Which are most relevant in arguing for Y?
Which are most relevant in arguing against Y?

Better Multiple Choice Exams with Bloom Levels

KNOWLEDGE (recall and recognition)
   • Which of the following are important theories of X?
   • Identify which of the following are symptoms of X?

COMPREHENSION (understanding examples, meaning, and extrapolating)
   • Which of the following is an example of X?
   • Which of these are summaries of X?

APPLICATIONS (organize or solve with new situations or terms)
   • Which of the following Y might be most useful to X?
   • What would be the best way to improve X?

ANALYSIS (breaking apart, compare and contrast, generalizing)
   • Which of the following statements from article X are fact/opinion?
   • Which of the following facts (all true) are most relevant for the argument X?

SYNTHESIS (combining elements into a new patterns)
- Which of the following statements about X (all true) would be best evidence in SUPPORTING the argument Y?
- Which of the following are restatements of the thesis in article X from a person who disagrees?
- Which of the following develop the thesis of X further?

EVALUATION (presenting and defending judgments)
- Which of the following statements about X (all true) would be best evidence in REFUTING the argument Y? (Same set of answers to chose from.)
- Which of the following represents the strongest argument for why…?
- Which critique of X is most compelling?

Question (Analysis Level)
The following are all true statements about Jimmie Lunceford and Duke Ellington. Which of them are most relevant to why each (or both) are important to the history of jazz? (Check all that apply. Partial credit is available.)

Answer (and percent correct for each answer) Average score = 0.89 out of 2 points.
Y - Lunceford and Ellington both treated jazz as a serious art form.   69.725%
N - Lunceford was famous for his slightly old-fashioned 2-beat swing feel (instead of the increasingly common 4 swing feel).   45.872%
Y - The Lunceford band was extremely well rehearsed and could play together very precisely. 55%
Y - Ellington was interested in the unique and individual timbres (sound and way of playing) of each member of his band and mixed these particular textures rather than just using the entire section as a similar sounding unit.   95.413%
Y - Duke Ellington performed for floor shows for a white audience at the Cotton Club from 1927-1932.   53.211%

E. Assignment
- create an assignment as class preparation

1. Types of Assignments
Practice - problem sets
Writing - more focused prompts
Prepare for something -
Make a list -
Find something -
Analyze something -
Case Study -

2. Writing to Process and Prepare for Discussion.
- Index cards: Position Papers, Favorite Quote, Biggest Hole, Most Powerful
- Bring essays to class and have students respond in writing to each other.

3. Better Prompts
- What does the text say?
- How do you/others interpret this text?
- What problem might there be with this method/theory?
- What is the main argument the text is making?
- What is the most important evidence for this argument?
- What is the main bias or assumption of the author?
- How do you understand this text?
- How does this text do a good or poor job of conveying its message?
- Why is this passage important?
- Why is this passage disturbing?

4. Peer-Review Writing
- Tell students it will be read by other *students*.
- Share essays online before class on a discussion board.
- Peer-Review Rubrics
- Calibrated Peer Review (CPR)
- Inkshedding

F. Massively Better Classrooms
- develop class activities as extensions and applications

EXAMPLE: Bring to class a pitch for a meeting in New York. Then in class, surprise:

1. Alter conditions
- the meeting has been moved to Tokyo
- the client has changed the request

2. Change data
- the product failed a recent test
- the demographic data you used was flawed

3. Extend conditions
- the marketing person is sick: you're on

4. Complicate
- your competition has just released a better technology/product

5. Use in activity
- 10-20 minutes to do new research and make the changes.
- make presentations, submit revised plans or write about the change process.

6. Use in discussion

7. Reframe the problem
- how might you have prepared differently?

Better Discussions : stephenbrookfield.com
- Clear Learning Outcomes
  - --find the right entry point
  - --enhance intellectual curiosity
  - --confront contradictions
  - --challenge beliefs
  - --deepen investment in the material
  - --reflect on the significance of material
  - --connect information across disciplines
  - --demonstrate the human dimension

- Preparation (student and faculty)
  - --provide in advance:
    - model of good behaviors
    - learning outcomes
    - reading guide and questions
  - --ensure student preparation
  - --prepare a short list of different types of questions

- Clarify good student discussion behaviors
    - --comments that introduce substantive points
    - --comments that deepen the discussion
- Structure (be flexible)
- Grading (be creative)
- Practice (student and faculty)
    - --Discourse on Pizza (online)

Other forms of interaction (no-tech)
- Active Learning to Motivate Change
- Role Playing: Reacting to the Past: http://reacting.barnard.edu/
- Collaborative Learning
- Writing and Editing
- Reading
- Problem Solving
- Reflection
- Studios or Labs

Primary Sources Assignments
- Controversy
- Error Regression
- How Does it Work?
- Needle in the Haystack
- The Creative Process

Class Bingo

Class is boring	Ringtone	Handouts missing	Flirting couple	Pen Clicking
Uses class time for movies	Professor answers cell phone	Trouble with Powerpoint	Professor apologizes for making her "intro" too long.	Professor wanders off on tangent
Professor forgets the topic	Student falls asleep	**FREE SPACE = Someone on Facebook**	Professor complains there is too much to "cover"	TA does not have a clue
Professor makes obscure reference to his own research	Mystifying reference to pop culture that is 30 years out of date	Incomprehensible question from "I'm the smartest kid in the room"	Professor finally provides information that would have made the reading/assignment useful/interesting.	Professor goes over time and then asks "Are there any questions?"
Obviously not "coffee" in the thermos	Someone eating an entire meal	Allows the same student to walk in late every day	Professor makes excuses for not being prepared	Professor wears socks and flip-flops

B e t t e r   C l a s s   B i n g o

		FREE SPACE **=** **Discussion**		

G. Cognitive Wrappers

- customize a cognitive wrapper

Transparency

Contemplative Pedagogy

Cognitive Wrapper Template
Reflect
How much time did you spend preparing?
What % of your time was spent
      -thinking, reading, researching, drafting, editing?
      -reading, doing problems, working in groups?

Compare:
 Estimate the points you lost due to...

Adjust
What will you do differently next time?

Mary-Ann Winkelmes, Illinois Initiative on Transparency in Learning and Teaching
http://www.unlv.edu/provost/teachingandlearning
Kegan, R, Lahey, L. L. (2009), *Immunity to change: How to overcome it and unlock the potential in yourself and your organization*. Boston: Harvard Business Press.
Lovett, M. C., Carnegie Mellon University, "Make exams worth more than grades: Using exam wrappers to promote metacognition"

H. Integrated Course Design

• Edit and reduce content: what do you want students to remember in five years?
• Integration is more important than volume of content.
• Course design integrates goals, activities and assessment.

FIGURE 3.1. KEY COMPONENTS OF INTEGRATED COURSE DESIGN.
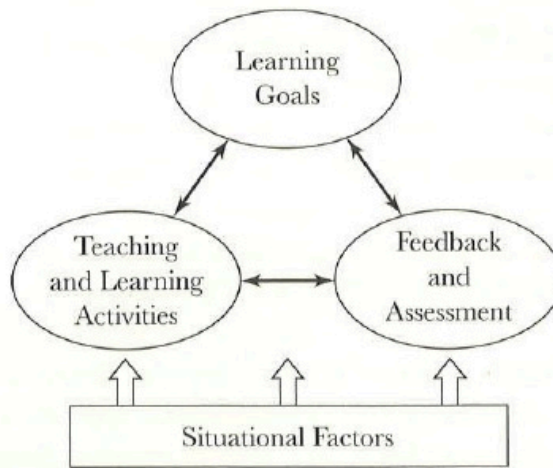
• Sequence should support learning goals.
• Technology expands the possibilities for what happens where.
• Class time is expensive and precious: put the most difficult learning there
• When and where is the best first contact and can you facilitate the entry point?
• When are opportunities to deepen learning or provide feedback?

Design a Learning Module

Before Class		In-Between		In-Between	
	In Class		In Class		In Class