**Learning (1)**

What is the most important prerequisite for effective learning?
- MOTIVATION, -- wanting to know!

What does that imply for a good teacher?
- Explain the relevance and importance of what you are about to teach;
- Relate any (theoretical) material to some application in the students' lives, careers.
- Be ENTHUSIASTIC!!

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**Learning (2)**

How do you make the material stick?
- Ears only  10%
- Eyes only  10%
- Eyes + Ears  25%
- + Lips: Repeat, Explain  50%
- + Hands: Use, Apply  80%

Implications?

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**Learning and Teaching**

How do you make the material stick?
- Use Props! (outrageous props will be remembered).
- Engage Audience, Q & A! (engage lips; Socratic method),
- Discovery Method (sow “confusion” first: enhances motivation, answers will stick).
- Give assignments to apply the material.

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**Teaching (1)**

- Organize!
  - Select relevant material
    - (consciously decide what to leave out!)
  - Sequence the material for a good progression
    - 5% Piaget steps: build foundations
    - (synchronize with assignments)

Be Organized!
- Let students know what to expect
  - (schedule, exam rules, grading …)
- Provide, set-up, and test (!) the class resources
  - (readers, web-pages, programs, lab equipment …)

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**Teaching (2)**

Teaching “imperfect” students
- i.e., human beings.
- (many) Students have:
  - time limitations, other course pressures,
  - insecurities, anxieties, lack of sleep,
  - poor work habits, lack of discipline, …
- Be understanding, compassionate
  - (this does not imply tolerance of bad habits)
- Help students overcome deficiencies
Learning to Teach

Dealing with an imperfect teacher (yourself)

(most) Teachers have:
- time limitations, other job pressures,
- lack of sleep, lack of patience, ...
- limited discipline, some procrastination, ...

Work on one (or two) traits at a time
(can't fix everything at once !)

Find and correct the “weakest link.”
(study the student surveys for feedback)

Teaching to Learn

Convey some meta-skills:
- Advise students on how to follow a class.
- Explain to them how to read a paper.
- Teach them how to write good reports.
- Show them how to give effective presentations.
- Instruct them how to work in teams.
- Guide them in how to prepare for an exam.

(More) Discussion?