

## Choosing the Source of Personal Teaching Principles

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 "A comprehensive and fundamental law, doctrine, or assumption"

(Merriam Webster's Dictionary)

 "an adopted rule or method for application in action: a working principle for general use."

(Dictionary.com)

"the ultimate source, origin, or cause of something"

(YourDictionary.com)



## Teaching Principles

Personal guidelines for making teaching decisions.



## The Most Common Source of Teaching Principles

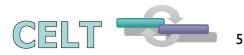
A Pedagogy of Observation



#### "When we teach, we engage in two closely related, but distinct, activities. First, we design the course by gathering information and making a number of decisions about the way the course will be taught. Second, we engage in teacher-student interactions as we implement the course we have designed."

What do students observe?

Source: Fink, L.D. (2003).



Source information:

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Source information:

- Observations during most of my undergraduate experience.
- Observations of many previous professors.
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- 1. When I need to cover a lot of information efficiently I should rely on class lectures. Students can then *learn* the information in labs or recitation sections, and with homework assignments.



# Important findings from research in the learning sciences

Drawn from:

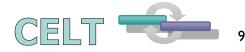
- Applying the Science of Learning
- How People Learn



## Principles drawn from adult learning theories

- Participation of learners in naming what is to be learned.
- Safety in environment and process.
- A sound relationship between teacher and learner.
- Careful attention to sequence of content and reinforcement.
- Action with reflection or learning by doing.
- Respect for learners as subjects of their own learning.
- Cognitive, affective, and psychomotor aspects.
- Clear roles and role development.
- Engagement of learners in what they are learning.
- Immediate applicability of learning.
- Teamwork: using small groups.
- Accountability: how do they know they know.

Source: Vella, J. (1994). Learning to Listen: Learning to Teach.



### Applying the Science of Learning to the University and Beyond

- Practice at retrieval promotes long-term retention.
- Varying the conditions results in better learning.
- Re-presenting information in alternative formats enhances learning.
- Learning depends on prior knowledge.
- Learning is influenced by our ideas about learning.
- Experience alone is a poor teacher.
- Lectures don't promote deep understanding.
- The act of remembering enhances the ability to remember.
- Understanding a few things well beats understanding a lot superficially when it comes to retention.
- How learning occurs determines how and when knowledge may be recalled.

Source: Halpern, D. & Hakel, M. (2003). Change.



#### Key findings in How People Learn

- Students come to the classroom with preconceptions that must be engaged or they will leave with the same conceptions.
- Competence results from: (a) a base of factual knowledge; (b) knowledge built in context of a conceptual framework; and (c) knowledge organized for retrieval.
- A metacognitive approach makes for better learning and better learners.

Source: National Research Council. (2000). How People Learn: Brain, Mind, Experience, and School.



Source information:

Learning is influenced by our ideas about learning.

Source: Halpern, D. & Hakel, M. (2003). Change.

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 Take a little time to explain why group activity can help students achieve desired learning objectives. Be <u>somewhat</u> transparent regarding decisions that affect students' learning.

#### Source information:

 Students come to the classroom with preconceptions that must be engaged or they will leave with the same conceptions.

**Source:** National Research Council. (2000). *How People Learn.* 

#### = PLAID:

 Use knowledge probes to find out what students already know or think about a topic. Small groups can be safe and comfortable environments for discussing different perspectives and/or understanding of particular topics.



- Source information:
- Experience alone is a poor teacher.

Source: Halpern, D. & Hakel, M. (2003). Change.

• *"We do not learn from our experience, we learn from processing our experience."* 

**Source:** John Dewey, cited in Small Group Instruction in Higher Education. (2003)

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