Lighting up the mind
constructing cycles of curricular engagement

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1. What do we observe?

http://www.youtube.com/watch?v=518XP8prwZo

2. What does this make us think about?
1. Observations

2. Reflections (makes us think about)
   *
   *
   *
   *
   *
1. What do we observe?

2. What does this make us think about?

3. What appears to be the message? By what evidence?

4. What might we collectively agree is an appropriate (YouTube) title for this work?

http://www.youtube.com/watch?v=518XP8prwZo

2. What does this make us think about?
1. Observations
   *
   *
   *
   *
   *

2. Reflections (makes us think about)
   *
   *
   *
   *

3. Analyses (messages and evidence)
   *
   *
   *
   *
   *

4. Decisions (appropriate titles)
   *
   *
   *
   *
   *
What are we constructing together?

How?

To what ends?
lighting up the mind
or
constructing curricular engagement

- are we constructing curricular engagement?

- in regard to something not previously (or proximally) on our radar?

- are we lighting up our minds through

  1. sensory input,

  2. reflective meaning making,

  3. critical analysis,

  4. and directed action?

(Herbers, 1998; Kolb, 1984; Mezirow, 2000; Zull, 2002)
To what extent do we want such engagement for our students?

taking informed action

analyzing extent and limitations of what is known

reflecting on and interpreting information

gathering information from a variety of senses
lighting up the mind
via

- whole-brained learning cycle (Zull, 2002)
  - experiential learning cycle (Kolb, 1984)
  - transformative learning cycle (Herbers, 1998; Mezirow, 2000)

- sensory cortex
  - concrete experience
  - cognitive dissonance

- frontal integrative cortex
  - abstract conceptualization
  - rational dialogue

- temporal cortex
  - reflective observation
  - critical reflection

- motor cortex
  - active experimentation
  - committed action
Lighting up our students’ minds
constructing cycles of curricular engagement

identifying, constructing, sharing examples
from our own subject areas
lighting up parts of the mind via partial-brained activity

- what, if any, are our experiences (frustrations?) observing students using only a couple of these capacities for our courses?
- results?
- options for constructing whole-brained alternatives in our courses?

- motor cortex
  - active experimentation
  - committed action

- frontal integrative cortex
  - abstract conceptualization
  - rational dialogue

- temporal cortex
  - reflective observation
  - critical reflection

- sensory cortex
  - concrete experience
  - cognitive dissonance
Inviting discussion:
on constructing cycles of engagement

in our own curriculum
Considered collectively, the brain’s four cortices, according to Zull (2002) suggest a striking opportunity for whole-brained experiential learning, based on the (1984) Kolb learning cycle—including concrete experience, reflective observation, abstract conceptualization, and active testing.

To this end, “deep learning, learning for real comprehension” explained Zull (2002), comes through a sequence of experience, reflection, abstraction, and active testing (p. 13).

Such experience, emphasized Zull, “changes the wiring in our brain because it changes the activity in our neurons. When neurons are more active,” continued Zull, “they can make more synapses” (2002, p. 116).

“Balanced use of all parts of the brain is essential for the kind of learning” that provides us with new behavioral choices (Zull, 2002, p. 32) that are sustained through “long term potentiation,” which Jensen (2005) described as when a neuron’s response to another neuron has increased, or has learned to respond, in which case “each future event requires less work to activate the same memory network” (p. 16).


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