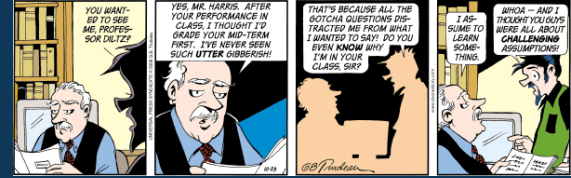


A Learning Community Approach to Assessment of Higher Cognitive Skills

Please take a handout on definitions of critical thinking

Merilee Griffin
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Assessment Institute
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Doonesbury, Oct. 23, 2008

The problem

- Devil in the details
 - Definitions, criteria, rubrics
 - Scoring methods
- No clear, nationally-recognized definition of critical thinking (or good writing or logical reasoning, etc.) exists

The problem

- Higher-level cognitive skills are socially constructed
 - No single definition exists
 - Definition is highly dependent on context
 - Criteria are developed by communities and are always subject to change
 - Assessment must be appropriately local and context-sensitive

Foucault, Derrida, Fish, Lave & Wenger, Huot, Ackermann

The problem

- Real-life problems are ill-structured:
 - Incomplete knowledge
 - Experts disagree
 - Ambiguous, even contradictory data
 - Not solvable with simple inductive or deductive reasoning
 - Competing claims
 - Not understood by a single world view
 - Influenced by hidden assumptions & beliefs

(Churchman, Wood, Paul, Kitchener)

The problem

- Moving students along scale:
 - Simplistic, dualistic thinking
 - Relativist thinking
 - Knowledge-based, reflective, committed thinking

(Perry, Kohlberg, Kitchener & King, Baxter Magolda, Kegan)

Testing situations

- Lack specific context
- Preclude search for information and multiple perspectives
- Reward fluent expression of superficial opinion
- Do not allow time for reflection, deep revision
- Ignore accuracy and precise thinking
- Preclude careful synthesis and analysis of ideas
- Scored quickly and superficially
- Lack validity

AERA, Huot, White, Broad, Cronbach, Messick

To obtain validity

- Real-life tasks and problems
- Local, context-specific
- Faculty-controlled
- Socially-constructed criteria
- Evolving continually

Huot, Broad, Yancey & Weisser

The obstacles

- Faculty buy-in
 - Time spent in arriving at consensus
 - Long, draining meetings
- Lack of transfer to assessment practice

The solution

- Focus on assessment of actual student work
 - Let definitions of outcomes, criteria, rubrics, grow out of assessment
- Train faculty in holistic scoring
 - Not new: 1970's movement to train teachers in holistic scoring
 - Same method used to score SAT's, GRE's, etc.
 - But more valid, because tasks and scoring are complex

Condon, Huot, White

The solution

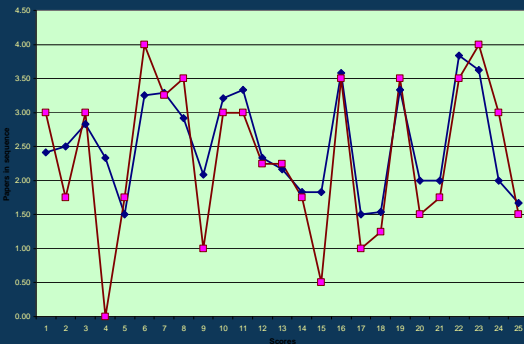
- Use interactive Web site rather than face-to-face meetings
 - Available 24/7 from any place
 - Encourages composed, thoughtful responses
 - Inexpensive, easy to program

The solution

- Web site
 - Pages to display student work
 - Scoring table, access controlled
 - Discussion forums
- Each program, department develops its own assessment Web site
- Delphi effect

Condon, White

Delphi effect



Benefits

- Faculty development
 - Challenge assumptions and biases
 - Extend boundaries of knowledge
 - Surprise and delight in collegiality!
 - Sense of community spills into other faculty concerns

Bruffee, Condon, Huot, White

Options

- Expert group or all faculty engaged
- Rubrics or holistic
- Incentives or not
- Set up similar pages for student access

Reliability and accountability

- Bruffee's work on faculty development
- Extend local communities to peer institutions first
- Schools choose their own "league"
- Parallel Bruffee's "nesting" – growth in larger communities
- Eventually, national dialog with various tiers of similar institutions

Bruffee, Kuhn, Perry, Pratt, Lave & Wenger

Long-term goal

- Realizable over five-ten years
- Nudged by accrediting agencies
- Managed by professional associations
 - expertise
 - membership, communications, network
 - conferences, publications
 - credibility, professional ethics

For purposes of accountability

- Highly trained scorers
- 0.8 inter-rater reliability
- Sampling
- Portfolio-type assessments
 - Shows development process
 - Reduces likelihood of cheating

Huot, White, Yancey & Weiser

For purposes of improvement

- All faculty engaged
- Learning community focused on student outcomes
- Indepth, comprehensive analysis of student work
- Immediate application in teaching practice
- Transfer from one course to another
- Continual learning and knowledge creation

Questions & Comments

- Please fill out evaluation form
- Sign up for digital slides and references
- Please let me know if you're working along similar lines!

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References

- AERA, APA, & NCME. (1999). *Standards for Educational & Psychological Testing*. Washington, DC: AERA.
- Akkerman, S. et al. (2007). Reconsidering group cognition: From conceptual confusion to a boundary area between cognitive and socio-cultural perspectives? *Educational Research Review*, 2, 39–63.
- Broad, R. (2003). *What we really value*. Logan, UT: Utah State University Press.
- Bruffee, K. A. (1999). *Collaborative learning: Higher education, interdependence, and the authority of knowledge*. Baltimore, MD: The Johns Hopkins University Press.
- Condon, W. (1997). Building bridges, closing gaps. In Yancey, K.B., & I. Weiser, Eds., *Situating Portfolios: Four perspectives*. Logan, UT: Utah State University Press. 196-213.
- Cronbach, L. (1989). Construct validity after thirty years. *Intelligence: Measurement Theory and Public Policy*. Urbana, IL: University of Illinois Press. 147-71.
- Derrida, J. (1976). *Of Grammatology*. Spivak, G.C., Trans. Baltimore: The Johns Hopkins University Press.
- Fish, S.E. (1980). *Is there a text in this class?: The authority of interpretative communities*. Cambridge, MA: Harvard University Press.
- Foucault, M. (1970). *The order of things: An archeaology of the human sciences*. New York: Pantheon.

- Huot, B. (2002). *(Re)articulating writing assessment for teaching and learning*. Logan, UT: Utah State University Press.
- King, P.M., & Kitchener, K.S. (1994). *Developing Reflective Judgment*. San Francisco: Jossey-Bass.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York: Cambridge University Press.
- Messick, S. (1993). Validity. In R. L. Linn (Ed.), *Educational measurement*, 3rd ed., 13-103. Phoenix, AZ: Oryx Press.
- Perry, W.G., Jr., (1999). *Forms of ethical and intellectual development in the college years: A Scheme*. San Francisco: Jossey-Bass.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York: Cambridge University Press.
- White, E.M. (1994). *Teaching and assessing writing*, 2nd ed. Portland, MA: Calendar Island Publishers.
- Yancey, K.B., & Weiser, I. (1997). *Situating portfolios: Four perspectives*. Logan, UT: Utah State University Press.