EFFICIENT FEEDBACK FOR EFFECTIVE LEARNING

HOW LESS CAN SOMETIMES BE MORE

The 2010 Assessment Institute

Materials for a Workshop Session

2:15-3:30 PM on Tuesday 26 October 2010

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A Few Questions We Might Consider . . .

1. *Why do learners need feedback?*
2. *What kind of feedback do learners need?*
3. *Does it matter what kind they want?*
4. *How much is enough?*
5. *How often is often enough?*
6. *How can we make it effective and efficient?*
7. *How can we ensure that it's taken seriously?*
8. *Does it all have to come from academics?*
9. *Should it all be one way?*

The RSQC2 Technique

Recall

Summarize

Question

Comment

Connect

Reference: Angelo, T.A. & Cross, K.P. Classroom Assessment Techniques: A Handbook for College Teachers, 2nd edition. San Francisco: Jossey-Bass, 1993, pp. 344-348

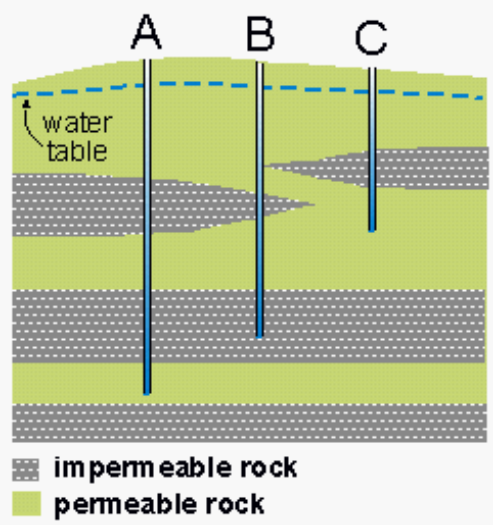
Political Science 100, Section 20 -- T.A. Angelo -- 1/28/91

Background Knowledge Probe #1

In response to each name, term, or concept in bold print below, circle the number that best represents your current knowledge:

	No. of Responses
1. Federalism	
(1) Have never heard of this	0
(2) Have heard of it, but don't really know what it means	14
(3) Have some idea what this means, but not too clear	15
(4) Have a clear idea what this means and can explain it	1
2. Separation of Powers	
(1) Have never heard of this	1
(2) Have heard of it, but don't really know what it means	6
(3) Have some idea what this means, but not too clear	18
(4) Have a clear idea what this means and can explain it	5
3. Republic	
(1) Have never heard of this	0
(2) Have heard of it, but don't really know what it means	5
(3) Have some idea what this means, but not too clear	23
(4) Have a clear idea what this means and can explain it	2
4. The *Constitution* of the U. S.	
(1) Have never heard of this	0
(2) Have heard of it, but don't really know what it means	2
(3) Have some idea what this means, but not too clear	8
(4) Have a clear idea what this means and can explain it	18
5. The *Articles of Confederation*	
(1) Have never heard of this	7
(2) Have heard of it, but don't really know what it means	13
(3) Have some idea what this means, but not too clear	6
(4) Have a clear idea what this means and can explain it	4
6. James Madison	
(1) Have never heard of this person	3
(2) Have heard of him, but don't really know who he was	8
(3) Have some idea who this was, but not too clear	15
(4) Have a clear idea who this was and can explain	4

Conceptest



Liquid hazardous waste is disposed of by pumping it down injection wells. Which well location would be the most suitable to use for an injection well? Why?

A B C

Thanks to Dr. David McConnell, Prof. of Geology at the University of Akron, for the example above.

STATISTICS FOR EVERYDAY LIFE – SPRING 2004 - ANGELO

FIRST CONCEPT REVIEW: *STANDARD DEVIATION*

Circle the one variable in each row that you would expect to have the largest relative standard deviation:

1. adult humans' heights	adult humans' weights
2. domestic dogs' weights	domestic cats' weights
3. oral language skills of 12-yr-olds	math skills of 12-year-olds
4. hours students spend in this classroom	hours students spend studying for this class

AN EXAMPLE OF GRADING STANDARDS

First-Year Writing Seminar
EN 010-01 -- T. A. Angelo
Boston College – Fall 1993

Grading Standards for Writing in Seminar Portfolios

"A" work

(1) Responds fully to the assignment given;
(2) Expresses its purpose clearly and persuasively;
(3) Is directed toward and meets the needs of a defined audience;
(4) Begins and ends effectively;
(5) Provides adequate supporting arguments, evidence, examples, and details;
(6) Is well-organized and unified;
(7) Uses appropriate, direct language;
(8) Correctly acknowledges and documents sources;
(9) Is free of errors in grammar, punctuation, word choice, spelling, and format;
(10) Maintains a consistent level of excellence throughout, and demonstrates originality and creativity in realizing (1) through (7).

"B" work Realizes (1) through (9) fully and completely–and demonstrates overall excellence–but shows little or no originality or creativity.

"C" work Realizes (1) through (9) adequately–and demonstrates overall competence–but contains a few, relatively minor errors or flaws. A "C" paper may show great creativity and originality, but those desirable qualities do not make up for poor or careless writing. A "C" paper usually looks and reads like a next-to-final draft.

"D" work Fails to realize some elements of (1) through (9) adequately–and contains several, relatively serious errors or flaws, or many minor ones. A "D" paper often looks and reads like a first or second draft.

"F" work Fails to realize several elements of (1) through (9) adequately–and contains many serious errors or flaws, and usually many minor ones, as well. An "F" paper usually looks and reads like a zero draft.

A SIMPLE ASSESSMENT/GRADING RUBRIC

Title of assignment: _____ Author: _____ Date: _____

(1) Responds fully to to the assignment	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(2) Expresses its purpose clearly and persuasively	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(3) Is directed toward and meets the needs of a defined audience	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(4) Begins and ends effectively	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(5) Provides adequate supporting arguments, evidence, examples, and details	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(6) Is well-organized and unified	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(7) Uses appropriate, direct language	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(8) Correctly acknowledges and documents sources	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(9) Is free of errors in grammar, punctuation, word choice, spelling, and format	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
(10) Maintains a level of excellence throughout	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
Shows originality and creativity in realizing (1) through (7)	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR
OVERALL EVALUATION	EXCELLENT	VERY GOOD	ADEQUATE	FAIR	POOR

COMMENTS:

GROUP INFORMAL FEEDBACK ON TEACHING*
(The G.I.F.T. Technique)

***Directions:* Please write brief, honest, and legible responses to the questions below.**
(Do not write your name on this paper.)

1. What are 1 or 2 specific things your teachers does/ your classmates do **that help you learn** in this course?

2. What are 1 or 2 specific things your teacher does/your classmates do **that hinder or interfere with** your learning?

3. Please provide your teacher/your classmates with **1 or 2 specific, practical suggestions on ways to help you improve your learning** in this course.

***Also known as Small Group Instructional Diagnosis (SGID)**

Reference: Angelo, T. A. & Cross, K. P. (1993). Classroom Assessment Techniques: A Handbook for College Teachers, (2nd ed.) San Francisco: Jossey-Bass, pp. 334-338.

The Minute Paper

Please answer each question in 1 or 2 sentences:

1) What was the most useful or meaningful thing you learned during this session?

_____

_____

2) What question(s) remain uppermost in your mind as we end this session?

_____

_____

Reference: Angelo, T. A. & Cross, K. P. Classroom Assessment Techniques: A Handbook for College Teachers, 2nd edition. San Francisco: Jossey-Bass, 1993, pp. 148-153.

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*The "Muddiest" Point**

What was the "muddiest" point in this session?
(In other words, what was least clear to you?)

_____

_____

_____

* Developed by Frederick Mosteller, a distinguished emeritus professor of statistics at Harvard University. For a detailed account of its development and use, see his article, *The "Muddiest Point in the Lecture" as a Feedback Device* in On Teaching and Learning:The Journal of the Harvard-Danforth Center, Vol. 3, April 1989, pp. 10-21.

Reference: Angelo, T. A. & Cross, K. P. Classroom Assessment Techniques: A Handbook for College Teachers, 2nd edition. San Francisco: Jossey-Bass, 1993, pp. 154-158.

Effective <u>assessment</u> for learning . . .

- Uses language and examples that are equally familiar to all those undergoing the assessment
- Focuses only what the learning goal/objective specifies
- Predicts relevant future behavior accurately
- Elicits consistent performance from learners & teachers
- Ensures academic integrity
- Is timely
- Is relevant to real world performance demands
- Is efficient for learners and assessors
- Is educative

Effective <u>feedback</u> for learning . . .

- Comes from credible and trusted sources
- Multiple, reinforcing sources
- Focused on work or behavior, not the person
- Criteria, not norm-referenced
- Descriptive, rather than evaluative
- Timely
- Iterative – part of a regular process
- Limited to what matters most
- Specific and concrete
- Possible to implement, given skills and time available
- Offers some choices
- Provides enough and strong enough evidence to support judgments and decisions made
- Involves self-assessment, as well

WHY GIVE LEARNERS FEEDBACK?

- TO IMPROVE PERFORMANCE & ACADEMIC SUCCESS
- TO INCREASE INTEREST & MOTIVATION TO LEARN
- TO ILLUMINATE AND UNDERMINE MISCONCEPTIONS
- TO PROMOTE SELF-ASSESSMENT
- TO DEVELOP INDEPENDENCE

TO USE FEEDBACK WELL, LEARNERS NEED M.O.M.

- MOTIVATION – *REASONS TO USE IT*
- OPPORTUNITIES – *FOR SAFE, GUIDED PRACTICE*
- MEANS – *KNOWLEDGE & SKILLS FOR IMPROVEMENT*

THE ORDER IN WHICH WE GIVE FEEDBACK MATTERS.

CONSIDER THE FOLLOWING FIVE STEPS:

1ST - GOOD NEWS: WHAT WAS DONE *WELL*

2ND - BAD NEWS: WHAT STILL NEEDS *IMPROVEMENT*

3RD - OPTIONS: WHAT *CAN BE DONE* TO IMPROVE IT

4TH - PLANS: WHAT THE LEARNER *INTENDS* TO DO

5TH - COMMITMENTS: WHAT BOTH PARTIES *AGREE* TO DO, *HOW, TO WHAT STANDARD, AND BY WHEN*

Applications Card

DIRECTIONS: Please take a moment to recall the ideas, techniques, and strategies we've discussed – and those you've thought up – to this point in the session. Quickly list as many possible applications as you can. Don't censor yourself! These are merely possibilities. You can always evaluate the desirability and/or feasibility of these possible applications later.

Interesting IDEAS/TECHNIQUES from this session	*Some possible APPLICATIONS of those ideas/techniques to my work*

Reference: Angelo, T.A. & Cross, K.P. (1993). Classroom Assessment Techniques: A Handbook for College Teachers, 2nd edition. San Francisco: Jossey-Bass, pp. 236-239.

A Few Key References on Learning & Teaching

Anderson, L.W. & Krathwohl, D.R. (Eds.). (2001). A Taxonomy of Learning, Teaching, and Assessment: A Revision of Bloom's Taxonomy of Educational Objectives. New York: Longman.

Angelo, T.A. & Cross, K.P. (1993). Classroom Assessment Techniques: A Handbook for College Teachers, 2nd edition. San Francisco, CA: Jossey-Bass.

Biggs, J. & Tang, C. (2007). Teaching for Quality Learning at University, 3rd Edition. Buckingham, UK: SRHE and Open University Press.

Boice, R. (1996). First-Order Principles for College Teachers: Ten Basic Ways to Improve the Teaching Process. Bolton, MA: Anker.

Bransford, J.D., Brown, A.L., & Cocking, R.R. (Eds.). (1999). How People Learn: Brain, Mind, Experience, and School. Washington, DC: National Academy Press.

Cross, K.P & Steadman, M.H. (1996). Classroom Research: Implementing the Scholarship of Teaching. San Francisco: Jossey-Bass, 1996.

Halpern, D.F. (1996). Thought and Knowledge: An Introduction to Critical Thinking, (3rd ed.). Mahwah, NJ: Erlbaum.

Hattie, J. & Temperley, H. (2007). The Power of Feedback. Review of Higher Education, 77(1), 81-112.

McKeachie, W.J & Associates. (2002). Teaching Tips: Strategies, Research, and Theory for College and University Teachers, 11th Edition. Boston: Houghton Mifflin, 2002.

Ramsden, P. (2003). Learning to Teach in Higher Education, (2nd Ed.). London, New York: RoutledgeFalmer, 2003.

Walvoord, B.E. & Anderson, V. (1998). Effective Grading: A Tool for Learning and Assessment. San Francisco: Jossey-Bass.

Weimer, M. (2002). Learner-Centered Teaching: Five Key Changes to Practice. San Francisco, CA: Jossey-Bass.

And a Few Useful Websites

The Carnegie Foundation for the Advancement of Teaching. http://www.carnegiefoundation.org/home.htm

The National Center for Academic Transformation. http://www.thencat.org

The IDEA Center at Kansas State University. http://www.idea.ksu.edu/

The National Institute for Science Education (NISE) Field-tested Learning Assessment Guide (FLAG). http://www.flaguide.org/

The Science Education Resource Center (SERC) at Carleton College–Concept Tests. http://serc.carleton.edu/introgeo/interactive/conctest.html.