# EFFICIENT FEEDBACK FOR EFFECTIVE LEARNING

## *HOW LESS CAN SOMETIMES BE MORE*

The 2011 Assessment Institute

Materials for a Workshop Session

3:45 – 5:00 PM on Monday 31 October 2011

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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.

# *FIVE DIMENSIONS OF HIGHER LEARNING*

| In your own undergrad education<br>What percentage of the teaching you experienced as a student focused on? | | For your students now<br>How would you (re)focus your program's teaching if you could? |
|---|---|---|
| _____ | Declarative Learning<br>Learning *What*<br>Learning facts and principles | _____ |
| _____ | Procedural Learning<br>Learning *How*<br>Learning skills and procedures | _____ |
| _____ | Conditional Learning<br>Learning *When and Where*<br>Learning applications | _____ |
| _____ | Reflective Learning<br>Learning *Why*<br>Learning to understand one's self and others | _____ |
| _____ | Metacognitive Learning<br>Learning *How to Learn*<br>Learning to direct and manage one's own learning | _____ |
| _____<br>100% | | _____<br>100% |

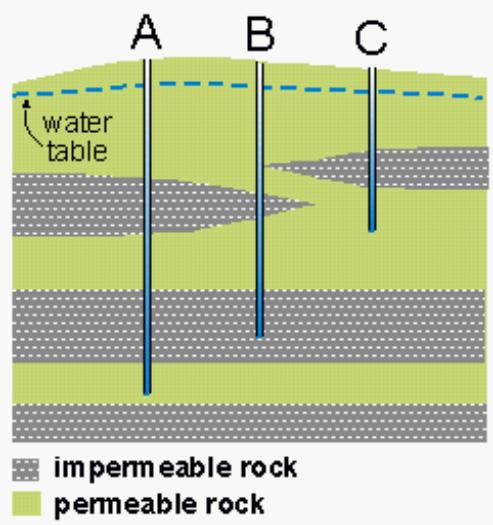
# Political Science 100, Section 20 -- T.A. Angelo -- 1/28/91

## *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

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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 |

# *A Detailed Assessment/Grading Rubric*

## Macroeconomics Essay Grading Grid

Assignment: Write a well-structured, enlightened critical essay about current economic conditions that demonstrates command of existing economic knowledge, appropriate interpretation and application of that knowledge, and demonstrates appropriate use of data and argumentation to support well-reasoned policy recommendations.

Basic Questions: What is the current macroeconomic situation in the U.S.?
What is the likely prognosis for the next 12 to 24 months?
What are your economic policy recommendations?

| Criterion | Distinguished | Exceeds Expectations | Meets all Expectations | Meets some Expectations | Unsatisfactory | Missing or fails minimum req |
|---|---|---|---|---|---|---|
| **Structure** | **10** | **8** | **6** | **4** | **2** | **0** |
| Meets all minimum requirements | | | | | | |
| **Executive summary** is effective & concise | | | | | | |
| **Introduction** clearly lays out a roadmap for the paper and places the information in context | | | | | | |
| **Body** addresses all the Basic Questions, includes the argumentation and data | | | | | | |
| **Conclusion** provides summary and closure | | | | | | |
| **Content** | | | | | | |
| **Knowledge** | **30** | **24** | **18** | **12** | **6** | **0** |
| **Command** of existing economic knowledge | | | | | | |
| **Use of terms**, theories, and data are | | | | | | |
| **Informed judgment** demonstrated by selection of terms, theories and data (shown by the exclusion irrelevant and inclusion of | | | | | | |
| **Argumentation** | **40** | **32** | **24** | **16** | **8** | **0** |
| **Argument flows logically** so that early statements lay the foundation for later statements and the reader is guided through the arguments | | | | | | |
| **Appropriate application** of theory is used to make argument; clearly links theory and data to conclusions | | | | | | |
| **Arguments are persuasive** focuses on key points, does not wonder, uses no unnecessary verbiage | | | | | | |
| **Alternative** policies, arguments, conclusions and generalizations are noted where they exist and addressed; differences of opinion, supported by evidence, are also discussed | | | | | | |
| **Data used** is reliable, valid, and pertinent; it provides effective support; no superficial information or tangential data muddies the argument | | | | | | |
| **Striving for Excellence and Creativity** | **20** | **16** | **12** | **8** | **4** | **0** |
| **Presentation** is neat and professional; all visuals used are well labeled, clear, and effective conveying information better than words; text contains no errors and is easy to read & understand | | | | | | |
| **Creativity** – the paper clearly holds the imprint of the author. Original thought is demonstrated by innovative organization, the integration of concepts and ideas, the use of new approaches, the novel use of visuals, or | | | | | | |

Thanks to Dr. Richard Stratton of the University of Akron for permission to use this example.

# 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.

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***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.

# Discussion Draft Questions for an Undergraduate Course/Teaching Feedback (not Evaluation!) Form

Questions about yourself (1= Always, 2=Usually, 3=Sometimes, 4=Rarely, 5=Never, NA= Not Applicable)

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. I was self-motivated to learn this course material | 1 | 2 | 3 | 4 | 5 | NA |
| 2. I was well-prepared for each class session | 1 | 2 | 3 | 4 | 5 | NA |
| 3. I asked the instructor for help/guidance when I needed it | 1 | 2 | 3 | 4 | 5 | NA |
| 4. I invested enough time and energy to meet/exceed course requirements | 1 | 2 | 3 | 4 | 5 | NA |
| 5. I participated actively and contributed thoughtfully in class sessions | 1 | 2 | 3 | 4 | 5 | NA |
| 6. I attended class sessions and/or individual appointments | 1 | 2 | 3 | 4 | 5 | NA |
| 7. Overall, I gave my best possible effort to learning in this course | 1 | 2 | 3 | 4 | 5 | NA |

Questions about the course (1= Always, 2=Usually, 3=Sometimes, 4=Rarely, 5=Never, NA= Not Applicable)

| | | | | | | |
|---|---|---|---|---|---|---|
| 8. The course was well-organized to help students learn | 1 | 2 | 3 | 4 | 5 | NA |
| 9. The objectives and criteria for meeting them were made clear | 1 | 2 | 3 | 4 | 5 | NA |
| 10. The assignments contributed to my learning | 1 | 2 | 3 | 4 | 5 | NA |
| 11. The assessments/evaluations were clearly connected to the objectives | 1 | 2 | 3 | 4 | 5 | NA |
| 12. The amount of work required was appropriate to the objectives | 1 | 2 | 3 | 4 | 5 | NA |
| 13. The level of intellectual challenge was high | 1 | 2 | 3 | 4 | 5 | NA |

Questions about the instructor (1= Always, 2=Usually, 3=Sometimes, 4=Rarely, 5=Never, NA= Not Applicable)

| | | | | | | |
|---|---|---|---|---|---|---|
| 14. The instructor clearly connected the course objectives to course activities, assignments, and assessments | 1 | 2 | 3 | 4 | 5 | NA |
| 15. The instructor encouraged me to connect my experience to the course | 1 | 2 | 3 | 4 | 5 | NA |
| 16. The instructor provided clear and useful feedback to improve learning | 1 | 2 | 3 | 4 | 5 | NA |
| 17. The instructor inspired interest and excitement in the course material | 1 | 2 | 3 | 4 | 5 | NA |
| 18. The instructor was available and helpful when asked | 1 | 2 | 3 | 4 | 5 | NA |
| 19. The instructor communicated ideas and information clearly and effectively | 1 | 2 | 3 | 4 | 5 | NA |
| 20. The instructor evaluated and graded fairly | 1 | 2 | 3 | 4 | 5 | NA |
| 21. The instructor treated students and their ideas with respect | 1 | 2 | 3 | 4 | 5 | NA |
| 22. The instructor used required texts/other required materials effectively | 1 | 2 | 3 | 4 | 5 | NA |

Summary Questions: Compared w/ other courses: (1=extremely high, 2=high, 3=adequate, 4=low, 5=very low)

| | | | | | | |
|---|---|---|---|---|---|---|
| 23. This course increased my desire to continue learning about this material | 1 | 2 | 3 | 4 | 5 | NA |
| 24. If a friend asked about taking this course, my recommendation would be | 1 | 2 | 3 | 4 | 5 | NA |
| 25. Overall, I would rate the quality of this course as | 1 | 2 | 3 | 4 | 5 | NA |
| 26. Overall, I would rate the effectiveness of the instructor as | 1 | 2 | 3 | 4 | 5 | NA |
| 27. Overall, I would rate the amount I learned in this course as | 1 | 2 | 3 | 4 | 5 | NA |
| 28. Overall, I would rate the value of what I learned in this course as | 1 | 2 | 3 | 4 | 5 | NA |

# *Seven Levers for Deeper Learning*

## Research-based Guidelines for more Effective Teaching and Learning

Overall, research suggests that virtually all students can learn more – and more deeply – when we help them to . . .

1. *Become explicitly aware of their own relevant prior knowledge, beliefs, preconceptions, and values – and <u>un</u>learn, as needed*

2. *Set and maintain realistically high and personally meaningful learning goals and expectations for academic success*

3. *Learn <u>how</u> to learn effectively – given their own individual histories, talents, preferences, and goals – so they become increasingly self-directed and independent learners*

4. *Understand the criteria, standards, and methods used in assessing and evaluating their learning and get useful, timely feedback on their performance against those standards*

5. *Seek and find connections to and real-world applications of concepts and skills they are learning in class*

6. *Collaborate regularly and effectively with other learners and with teachers to achieve meaningful, shared learning goals*

7. *Invest as much actively engaged time and high-quality effort as possible in their academic work*

# *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?

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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
- Comes from 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 regarding follow up
- 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

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

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

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## *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 application ideas 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 USEFUL REFERENCES ON ASSESSMENT & FEEDBACK

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