Doing Assessment as if Teaching and Learning Matter Most

Materials for a concurrent session in the

2016 Assessment Institute in Indianapolis

10:15-11:15 AM – Monday 17 October 2016

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On the lines below, jot down 2 or 3 educational/professional values you hold that motivate you
to invest your time and energy in assessment efforts in your institution.

________________________________________________
________________________________________________
________________________________________________

What specifically do you hope to learn/gain through participating in the 2016 Assessment Institute?
On the lines below, please list three or four specific learning goals you hope to achieve –
things you hope to learn – and/or questions you hope to answer through participating actively.

Your Learning Goals/Burning Questions for the 2016 Assessment Institute

________________________________________________
________________________________________________
________________________________________________
________________________________________________


Please do not attempt to answer these until you receive verbal directions.

1. Of 1st-year students at 4-year US colleges in Fall 2015, what percentage . . .

   A. Graduated from a public school (not charter or magnet)? ___ %
   B. Graduated from a charter/magnet public school? ___ %
   C. Graduated from a private religious/parochial school? ___ %

2. Of those same students, about what percentage rated the following reasons as “very important” in deciding to go to college . . .

   A. To be able to get a better job? ___ %
   B. To learn more about things that interest me? ___ %
   C. To get training for a specific career? ___ %
   D. To gain a general education and appreciation for ideas? ___ %
   E. To be able to make more money? ___ %
   F. To prepare myself for graduate/professional school? ___ %
   G. To make me a more cultured person? ___ %

3. Of those same students, what percentage thought they had a “very good chance” of doing the following in college . . .

   A. Socializing w/someone of different racial/ethnic group ___ %
   B. Earning at least a B average? ___ %
   C. Communicating regularly with professors? ___ %
   D. Participating in student protests or demonstrations? ___ %

4. About what percentage of those 2015 FYs had a . . .

   A. First parent with at least a 4-year degree? ___ %
   B. Second parent with at least a 4-year degree? ___ %
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Percentage of Total Assessment</th>
<th>Percentage of Their Total Assessment</th>
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</thead>
<tbody>
<tr>
<td><strong>FACTUAL LEARNING</strong></td>
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<tr>
<td>Learning What (Level 1)</td>
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<tr>
<td>Learning facts and principles</td>
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<td><strong>CONCEPTUAL LEARNING</strong></td>
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<tr>
<td>Learning What (Level 2)</td>
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<tr>
<td>Learning concepts and theories</td>
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<tr>
<td><strong>PROCEDURAL LEARNING</strong></td>
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<td>Learning How</td>
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<td>Learning skills and procedures</td>
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<td><strong>CONDITIONAL LEARNING</strong></td>
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<tr>
<td>Learning When and Where</td>
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<td>Learning applications</td>
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<tr>
<td><strong>METACOGNITIVE LEARNING</strong></td>
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<tr>
<td>Learning How to Learn</td>
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<tr>
<td>Learning to direct and manage one’s own learning</td>
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<td><strong>REFLECTIVE LEARNING</strong></td>
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<tr>
<td>Learning Why (and Why Not)</td>
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<tr>
<td>Developing self-knowledge, cultural awareness, ethics, etc.</td>
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</tbody>
</table>

100%                               100%
**Plus-Minus-Question Mark Technique – [ II, VII ]**

Some key terms and concepts that *might* be of use . . .

- Formative and summative assessment
- Backward design
- Constructive alignment
- Gap analysis
- Performative tasks
- Implicit bias
- *Bus Test, Parrot Test, and Parking Lot Test*
- Cognitive load
- Metacognition
- *The Dance Floor and The Balcony*
- Deliberate practice
- Novice-Expert differences

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**Seven Research-based Guidelines for Assessment to Improve Teaching & Learning**

I. **Build shared trust.** Begin by lowering personal, interpersonal and organizational barriers to risk taking and change.

II. **Build shared language and concepts.** Develop a collective understanding of the key terms and concepts (mental models) needed for transformation.

III. **Build shared goals and motivation.** Collectively determine goals worth working toward, problems worth solving and questions worth answering – and consider the likely costs and benefits.

IV. **Design backward and work forward.** Design backward from that shared vision and long-term goals to develop coherent outcomes, strategies, and activities.

V. **Think and act systematically and sustainably.** Analyze the opportunities and limitations presented by system(s) within which we operate and seek connections and applications to those larger worlds.

VI. **Take a scholarly approach.** Apply what has already been learned about individual and organizational learning, change and assessment to inform, explain, and examine your plans and strategies.

VII. **Don’t assume, ask.** Practice what we preach. Make the implicit explicit – especially implicit biases. Demonstrate the value of assessment by using it ourselves – and on ourselves.
Bloom's Cognitive Domain Taxonomy (Revised)  
Anderson & Krathwohl (2001)

(6) CREATE  
Generate, Plan, Synthesize, Produce the New

(5) EVALUATE  
Critique or Judge based on Explicit Standards/Criteria

(4) ANALYSE  
Break Down, Relate Parts and Whole, Organize

(3) APPLY  
Follow Procedures to Solve Problems or Carry Out Tasks

(2) UNDERSTAND  
Connect New Learning to Prior Knowledge by Interpreting, Classifying, Comparing, Summarizing, etc.

(1) REMEMBER  
Elaborate, Encode, and Retrieve Information from Long-term Memory

“Blooming” - Categorizing Questions by Bloom’s Taxonomy — [ II, IV, VI ]  
Cook, E., et al. (2013)

Directions: Using the numbers 1-6 to represent the levels of Bloom’s revised taxonomy (above), please identify the level of each question below.

___A. Give an example of “seasonal change”  
___B. Why do the Earth’s seasons change?  
___C. What causes the Earth’s seasons to change? (Explain how it works.)  
___D. When it is winter in Indianapolis, USA, what season is it on Ipanema Beach in Brazil?  
___E. Where on Earth would you predict the greatest seasonal variation? Why?  
___F. What contribution, if any, will global warming likely make to seasonal change? Explain your reasoning.  
___G. What would happen to seasonal change in Indianapolis, IN, if the Earth’s degree of tilt on its axis changed to:  
   i. 45 degrees?  
   ii. 90 degrees?  
   iii. 180 degrees?  
   iv. 0 degrees?  
___H. If the Earth’s orbit moved it significantly further away from the Sun, what difference, if any, would you predict that increased distance would make to seasonal change? Explain your answer.  
___I. If you were teaching how and why the seasons change to a 5-year-old, how would you explain it?  
___J. If astronomers discovered an Earth-like planet with no seasonal variation, what would you predict about that planet’s orbit, etc.? Explain your reasoning.
## Bondy’s Clinical Performance (Skills) Rating Scale

Bondy, K.N. (1983)

<table>
<thead>
<tr>
<th>Bondy Levels</th>
<th>My Skills at each Bondy level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert Instructor (6)</td>
<td></td>
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<tr>
<td>Independent (5)</td>
<td></td>
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<tr>
<td>Supervised (4)</td>
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<tr>
<td>Assisted (3)</td>
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<tr>
<td>Marginal (2)</td>
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<tr>
<td>Dependent (1)</td>
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</table>

### (6) EXPERT INSTRUCTOR *
Safe – Very Proficient – Capable of assessing, demonstrating, instructing & supporting learners in levels 1-5

### (5) INDEPENDENT
Safe – Very Proficient – Requires no support

### (4) SUPERVISED
Safe – Proficient – Requires only occasional support and direction

### (3) ASSISTED
Safe – Mostly Proficient – Requires frequent support and direction

### (2) MARGINAL
Safe only when supervised – Unskilled – Requires continuous support and direction

### (1) DEPENDENT
Unsafe & Unaware – Unable to demonstrate skill – Requires direct instruction and continuous support

*Level Six is not in the original Bondy Scale, but is implicit in its use as a criterion-based assessment tool.

**Skills Self-Assessment Exercise – [ II, IV, VI ]**

Using the Bondy Scale above, and thinking of skills you already possess and your current levels of competence, confidence and independence in those skills: Identify at least one of your skills in which you are currently “Dependent,” another skill(s) in which you are “Marginal,” and so on all the way up.

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10:15-11:15 AM on 17 Oct. 2016 – Tom Angelo - thomas.a.angelo@gmail.com
A Detailed Assessment/Grading Rubric

Macroeconomics Essay Grading Grid – [I, IV, V]  
Rhodes, T.L. (2010)

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?

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Distinguished</th>
<th>Exceeds Expectations</th>
<th>Meets all Expectations</th>
<th>Meets some Expectations</th>
<th>Unsatisfactory</th>
<th>Missing or fails minimum req.</th>
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</thead>
<tbody>
<tr>
<td>Structure</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>0</td>
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<tr>
<td>Executive summary is effective &amp; concise</td>
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<tr>
<td>Introduction clearly lays out a roadmap for the paper and places the information in context</td>
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<tr>
<td>Body addresses all the Basic Questions, includes the argumentation and data</td>
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<tr>
<td>Conclusion provides summary and closure</td>
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<tr>
<td>Content</td>
<td>30</td>
<td>24</td>
<td>18</td>
<td>12</td>
<td>6</td>
<td>0</td>
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<tr>
<td>Command of existing economic knowledge</td>
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<tr>
<td>Use of terms, theories, and data are</td>
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<td>Informed judgment demonstrated by selection of terms, theories and data (shown by the exclusion irrelevant and inclusion of relevant issues)</td>
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<tr>
<td>Argumentation</td>
<td>40</td>
<td>32</td>
<td>24</td>
<td>16</td>
<td>8</td>
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<tr>
<td>Argument flows logically so that early statements lay the foundation for later statements and the reader is guided through the arguments</td>
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<td>Appropriate application of theory is used to make argument; clearly links theory and data to conclusions</td>
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<td>Arguments are persuasive focuses on key points, does not wonder, uses no unnecessary verbiage</td>
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<tr>
<td>Alternative policies, arguments, conclusions and generalizations are noted where they exist and addressed; differences of opinion, supported by evidence, are also discussed</td>
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<td>Data used is reliable, valid, and pertinent; it provides effective support; no superficial information or tangential data muddies the argument</td>
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<tr>
<td>Striving for Excellence and Creativity</td>
<td>20</td>
<td>16</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>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 &amp; understand</td>
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<tr>
<td>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</td>
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</table>

Thanks to Dr. Richard Stratton of the University of Akron for permission to use this example.
**Draft Questions for a Course/Teaching Feedback Form** – [I, V, VI]

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

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  
9. The objectives and criteria for meeting them were made clear  
10. The assignments contributed to my learning  
11. The assessments/evaluations were clearly connected to the objectives  
12. The amount of work required was appropriate to the objectives  
13. The level of intellectual challenge was high

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

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

23. Overall, I would rate the instructor’s effectiveness as a teacher as  
24. Overall, I would rate the amount I learned in this course as  
25. Overall, I would rate the value of what I learned in this course as  
26. Overall, I would rate the quality of this course as  
27. My motivation to continue learning about this material in the future is  
28. The likelihood I’d recommend this course to a good friend is
**Applications Card** – [ III, IV, V ]  

<table>
<thead>
<tr>
<th>Interesting or promising IDEAS/TECHNIQUES from this session</th>
<th>Some possible, potential APPLICATIONS of those ideas/techniques to my work</th>
</tr>
</thead>
</table>

A FEW USEFUL REFERENCES ON TEACHING, ASSESSMENT AND LEARNING — [ VI ]


Dunlosky, J., et al. (2013). Improving students’ learning with effective learning techniques: Promising directions from cognitive and educational psychology. Psychological Science in the Public Interest, 14(1), 4-58.


Session Feedback Form – [ VII ]

Overall Feedback – Please circle the rating for each item which best represents your experience and evaluation of this session.

1. Overall, the value of what I learned in this session is
   
   5  4  3  2  1
   Very High  High  Adequate  Low  Very Low

2. Overall, the quality of this session is
   
   5  4  3  2  1
   Very High  High  Adequate  Low  Very Low

3. Overall, I rate this presenter's effectiveness as
   
   5  4  3  2  1
   Very High  High  Adequate  Low  Very Low

Comments on this session

4. Which two or three specific aspects of this session were most useful/helpful?

5. Which specific aspects could have been improved?

6. What questions, if any, remain unanswered?