LINKING STUDENT ENGAGEMENT & ESSENTIAL LEARNING OUTCOMES

EVIDENCE AND CAVEATS

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Overview

- Context—engagement and outcomes
- Findings from 3 studies
  - The Wabash National Study of Liberal Arts Education
  - Assessing Deep Approaches to Learning Project
  - The Parsing the First Year of College Project
- Thoughts and Issues
- Exchanging Ideas
Colleges and universities must become more transparent about cost, price, and student success outcomes, and must willingly share this information with students and families.

Thoughtful and forceful leadership from within the academy itself on both assessment and accountability is more essential today than ever.

Our Students’ Best Work (2nd Edition), AAC&U, 2008
Student Engagement

- **Institutional + student** efforts that lead to desirable outcomes

- **Student engagement is appealing because**
  - Relatively easy and affordable to assess
  - Offers direct connections to improvement
  - Built on research suggesting connection to outcomes

- **But...**
We still need

- Demonstrated connections between measures of student engagement (NSSE) and measures of essential learning outcomes (not just grades, grad rates)

- To understand when, where, and for whom the strength of those connections vary
  - Compensatory effects
  - Accentuation effects

- To understand faculty role in promoting
NSSE Measures of Engagement

- 5 Effective Educational Practices
  - Academic Challenge
  - Active & Collaborative Learning
  - Student-Faculty Interaction
  - Enriching Educational Experiences
  - Supportive Campus Environment
Deep Approaches to Learning

- **DAL Overall scale**
  (combination of 3 sub-scales)

- **Sub-Scales**
  - Higher-order learning
  - Integrative learning
  - Reflective learning
Wabash National Study of Liberal Arts Education

Funded by the Center of Inquiry into the Liberal Arts at Wabash College
Data

- **First year of the Wabash National Study of Liberal Arts Education (WNSLAE)**
  - Longitudinal (pre-post) design permitted control of a large array of potential confounding influences
  - 3,081 first-time, full-time students at 19 institutions
  - Data collected in Fall 2006 and Spring 2007
Liberal Arts Outcomes

- **Effective reasoning and problem solving**
  - CAAP critical thinking test

- **Moral character**
  - Defining Issues Test (DIT2) N-2 score

- **Well-being**
  - Ryff scales of psychological well-being
Liberal Arts Outcomes (cont)

- **Inclination to inquire and lifelong learning**
  - Need for cognition scale
  - Positive attitude toward literacy scale

- **Intercultural effectiveness**
  - Miville-Guzman Universality-Diversity scale
  - Openness to diversity and challenge scale

- **Leadership**
  - Socially responsible leadership (8 scales)
Analysis—Individual Level

**NSSE Benchmarks**
- Residence
- Amount worked
- LA coursework
- Inst. type

**Other College Experiences**
- CAAP critical thinking
- DIT2
- Ryff well-being
- SRLS leadership
- Need for cognition
- Attitude toward literacy
- MGUDS diversity
- Openness to diversity

*Controlling for Background and Pre-college characteristics*
<table>
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<tr>
<th>Individual-level Effect Sizes</th>
<th>Academic Challenge</th>
<th>Active Collaborative Learning</th>
<th>Student-Faculty Interaction</th>
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<td>0.07**</td>
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Implications

- NSSE scales measure practices and experiences that positively influence cognitive and personal growth
- This influence appears to be discernable as early as the first year of college
- NSSE a cost effective means of assessing institutional effectiveness
Assessing Deep Approaches to Learning Project

Funded by the Teagle Foundation
Data

- 383 students at 3 institutions
- Cross-sectional design with controls
- First-year students through seniors
- Data collected in spring of 2007 and 2008
Outcome Instruments

- California Critical Thinking Dispositions Inventory (CCTDI)
- California Critical Thinking Skills Test (CCTST)
- Reasoning about Current Issues Test (RCI)
### Correlations

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<th>RCI</th>
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### Effects after controlling for student characteristics

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Mostly A's or A-'s in h.s.

Mostly B+'s or lower in h.s.
Implications

- Certain forms of engagement more closely connected to certain outcomes
  - Deep approaches to learning & CT dispositions
  - Also
    - Supportive campus environment & well being
    - Academic challenge & diversity

- A form of engagement (i.e. DAL) has effects that accentuate gaps between high and low h.s. performers
Parsing the First Year of College Project

Funded by the Spencer Foundation
Figure 1. A comprehensive model of influences on student learning and persistence

(Reason & Terenzini, 2007, 2008; Terenzini & Reason, 2005)
The Study

- 45 Institutions (34 Parsing + 11 WNS)
- ~5,000 first-year students
- 2,853 faculty members
- 45 CAOs and 45 SSAOs

Findings to-date from Faculty Survey
Preliminary Results

- **Student Encounters with Difference**
  - Good teaching practices
    - Active Teaching Practices
  - Faculty Culture
    - Active Teaching & Assessment
  - Institutional Culture, not type
    - Emphasis on Teaching
  - Disciplinary Differences
    - Difference in quantity of encounters
    - Active Teaching still drives
    - Type of institution matters for social sciences
Preliminary Results

- **Faculty reported out-of-class engagement**
  - Difference reported in amount of contact between faculty to “choose to” v. “are required to” teach FY courses.
    - “choose to” teach report higher contact
  - Teaching behaviors not important
    - Promoting Encounters with Difference significant for “choose to” group.

- **Early hypothesis that teaching behaviors provide cues for students re: openness of faculty not well supported**
  - Attitude toward teaching more important??
Pilot Study
(Foundations of Excellence Project)

- Student Academic Competence
  - Supporting all Students
  - Cognitive Engagement
    - Individual and Peer Environment
  - Academic Engagement
  - Institutional Challenge
Pilot Study
(Foundations of Excellence Project)

- **Student Social and Personal Competence**
  - Supporting all Students
    - Individual and Peer Environment
  - Promoting Encounters with Difference
  - Cognitive Engagement
Policy Implications...thus far

1. **Challenge and Support**
2. Its not who/what you *are*, its what you *do*
3. The driving force: Active Teaching & Assessment
4. Proximally proportional influences
5. **Faculty Culture is important**
6. Required teaching of first-year courses may be counterproductive with respect to promoting student-faculty interaction.
What is this work telling us about assessment?
Thoughts & Issues

- Complex Assessment Strategies
  - Multiple sources: students, faculty, and others
  - Multiple measures: processes and outcomes
  - Digging deeper: what works for whom, when?

- Research-Assessment Exchange
  - Efficiencies
  - Better understanding (nuance and depth)
  - What do we need to know?
Thoughts & Issues

- **Culture of inquiry (not just evidence)**
  - Cultivating curiosity
  - Questioning + evidence collection
  - Satisfying accountability demands with products of our curiosity

- **Institutional collaboration (e.g. Teagle grants)**
  - Sharing curiosities
  - Sharing practices & results
  - Making meaning together
Idea Exchange