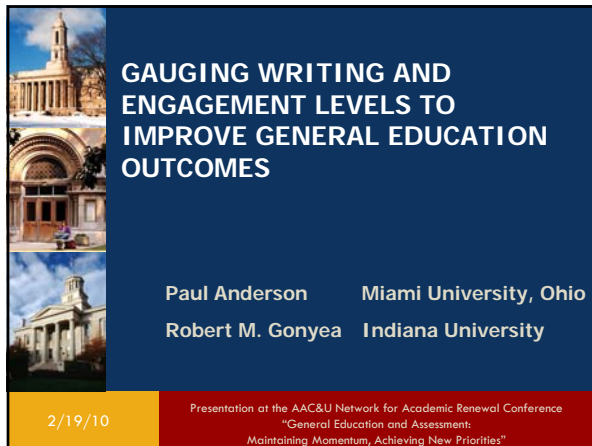


Gauging Writing and Engagement Levels to Improve General Education Outcomes

Anderson, P. & Gonyea, R.M.



GAUGING WRITING AND ENGAGEMENT LEVELS TO IMPROVE GENERAL EDUCATION OUTCOMES

Paul Anderson Miami University, Ohio
 Robert M. Gonyea Indiana University

2/19/10 Presentation at the AAC&U Network for Academic Renewal Conference
 "General Education and Assessment: Maintaining Momentum, Achieving New Priorities"

Problem

You conduct gen ed assessment
 It identifies outcomes to be improved
 But not how to improve them

Solution

Develop targeted initiatives by learning about the writing assignments faculty give

Preview

- Explain the research that links the kinds of writing assignments to achievement of gen ed outcomes
- Identify the kinds of actions that will improve gen ed outcomes
- Describe and illustrate ways to determine where to focus these actions

Acknowledgements

Study Collaborators

- Chris Anson
 - ▣ North Carolina State University
- Charles Paine
 - ▣ University of New Mexico

Research on Good Practices in Writing to Learn



National Survey of Student Engagement

In your experience at your institution during the current school year, about how often have you done each of the following?

	Very often	Often	Some-times	Never
Asked questions in class or contributed to class discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Made a class presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prepared two or more drafts of a paper or assignment before turning it in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worked on a paper or project that required integrating ideas or information from various sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Come to class without completing readings or assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worked with other students on projects during class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Deep Approaches to Learning

- D.A.L. Overall scale
(combination of 3 sub-scales)
- Sub-Scales
 - ▣ Higher-order learning
 - ▣ Integrative learning
 - ▣ Reflective learning

Deep Approaches to Learning

- HIGHER-ORDER LEARNING
 - ▣ Analyzing the basic elements of an idea, experience, or theory
 - ▣ Synthesizing & organizing ideas, info., or experiences
 - ▣ Making judgments about the value of information
 - ▣ Applying theories to practical problems or in new situations

Deep Approaches to Learning

- INTEGRATIVE LEARNING
 - ▣ Integrating ideas or information from various sources
 - ▣ Included diverse perspectives in class discussions/writing
 - ▣ Put together ideas from different courses
 - ▣ Discussed ideas with faculty members outside of class
 - ▣ Discussed ideas with others outside of class

Deep Approaches to Learning

- REFLECTIVE LEARNING
 - ▣ Examined the strengths and weaknesses of your own views
 - ▣ Tried to better understand someone else's views
 - ▣ Learned something that changed how you understand an issue

Self-Reported Gains in Learning and Development

- Practical Competencies
- Personal & Social Development
- General Education Learning



Self-Reported Data

Valid if five conditions are met:

1. Information is known to respondents
2. Questions are phrased clearly & unambiguously
3. Questions refer to recent activities
4. Respondents think the questions merit a serious and thoughtful response
5. Answering the questions does not threaten or embarrass students, violate their privacy, or encourage them to respond in socially-desirable ways

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LEAP

*Narrow Learning is Not Enough—
The Essential Learning Outcomes*

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

- ★ Knowledge of Human Cultures and the Physical & Natural World
- ★ Intellectual and Practical Skills
- ★ Personal and Social Responsibility
- ★ Integrative Learning




Consortium for the Study of Writing

- Partners
 - Council of Writing Program Administrative
 - NSSE
- 27 writing questions for NSSE
 - Administered 2008, 2009: 151 schools, 60,104 respondents
- Translated writing questions for FSSE
 - Administered 2009: 46 schools, 2,995 respondents


Consortium for the Study of Writing

Writing Practices

- Assign Meaning-Constructing Writing Tasks
 - 7-items
- Explain Writing Expectations
 - 3-items
- Encourage Interactive Writing Activities
 - 6-items



The Relationship of Writing Practices to Deep Learning and Gains



Data & Sample

- Students: 60,104 (41% first-year, 59% senior)

All students		Seniors only	
Female	66%	Transfer	39%
Part-time	10%	Arts & Humanities	15%
First-generation	43%	Biological Sciences	8%
African American	8%	Business	16%
Asian	5%	Education	10%
White	70%	Engineering	5%
Hispanic/Latino	8%	Physical Sciences	4%
Other	10%	Professional Fields	10%
		Social Sciences	16%

Data & Sample

- Institutions: 151 from NSSE 2008 and 2009

Carnegie		Sector	
Doc RU-VH	17%	Private	30%
Doc RU-H	21%	Public	70%
Doc DRU	3%		
Masters-L	30%		
Masters-M	6%		
Masters-S	6%		
Bac-AS	9%		
Bac-Diverse	6%		

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Variables

Control Variables

□ gender	□ grades
□ transfer status	□ major
□ living on campus	□ number of written pages
□ age	□ amount of assigned reading
□ international student	□ deep learning (gains models only)
□ parental education	
□ race	

Writing and Deep Learning

Results adjusting for student characteristics and writing amount

First-Year Students	Dependent Variables		
	Higher-Order Learning Activities	Integrative Learning Activities	Reflective Learning Activities
<i>Independent Variables</i>			
Encourage Interactive Writing Processes	✓✓	✓✓✓	✓✓
Assign Meaning-Constructing Writing Tasks	✓✓✓	✓✓	✓✓
Explain Writing Expectations Clearly	✓✓	✓✓	✓✓

Writing and Gains

Results adjusting for student characteristics, writing amount, and deep learning

First-Year Students	Dependent Variables		
	General Education	Personal & Social	Practical Competencies
<i>Independent Variables</i>			
Encourage Interactive Writing Processes	✓✓	✓✓✓	✓✓
Assign Meaning-Constructing Writing Tasks		✓✓	✓✓
Explain Writing Expectations Clearly	✓✓✓	✓✓	✓✓

- ## Importance for Gen Ed Assessment
1. Best practices in using writing to learn are positively associated with outcomes and activities associated with general education.
 2. These positive relationships exist above and beyond the *amount* of reading and writing students do.

- ## Application for Gen Ed Assessment
- These results pertain to factors that faculty and gen ed administrators can influence
 - ▣ Kind of projects they assign
 - ▣ Way they explain their assignments
 - ▣ Activities they require students to engage in while working on the assignments
 - Putting these factors to work
 - ▣ Initiate efforts to influence assignment design
 - ▣ Determine where to focus these efforts


Determining where to focus your efforts:

Example of Miami University, Ohio



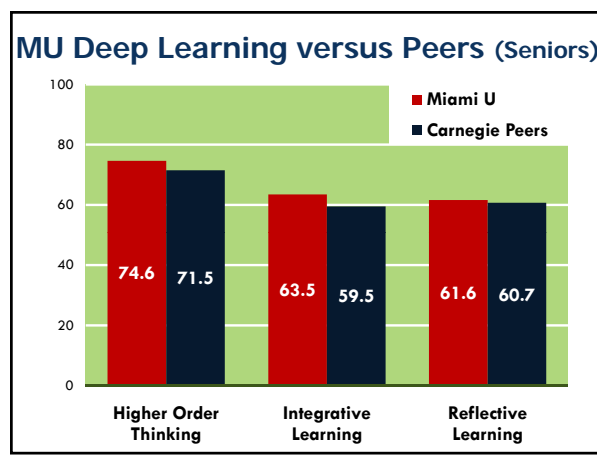
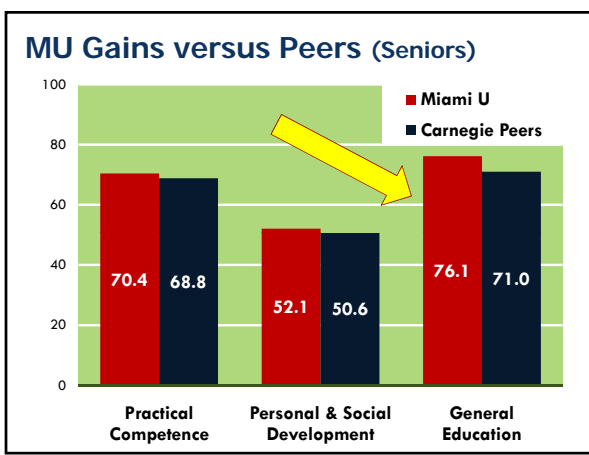
Miami University, Ohio

- State-supported
- 16,000 students
- Gen ed goals includes
 - ▣ Breadth of knowledge
 - ▣ Development of specific abilities
- Administered NSSE and 27 writing questions 2009



Identifying Gen Ed Goals

Dissatisfaction
Aspiration



Identifying Action to Take

Logic

Certain writing assignments are more effective at achieving gen ed outcomes

Determine the extent to which each best practice for assignments is being used

Identify the best practice(s) that will be most effective in achieving better outcomes

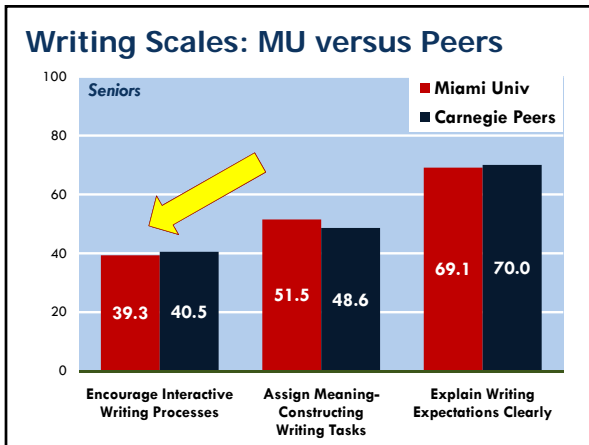
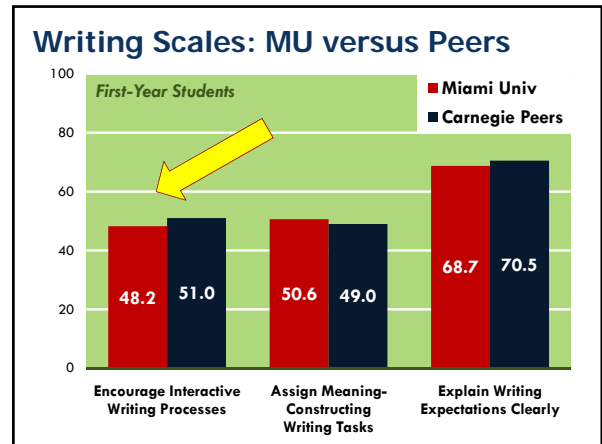
Provide curricular development support to promote greater use of that practice

Targeting the Support

1. Specific years (First Year; Senior)
2. Specific practices (scales)
3. Specific practices (individual items)
4. Specific programs

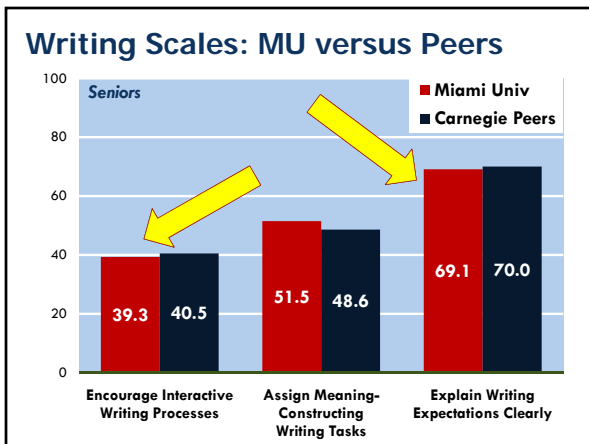
Target 1: Specific Year

- Look for differences in the experiences of first-year and seniors with respect to the best writing practices



Target 2: Specific Practice (scale)

- Determine which best practice scale might produce the most improvement

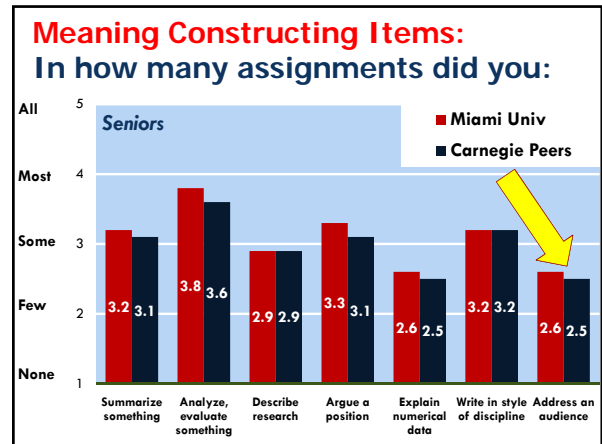
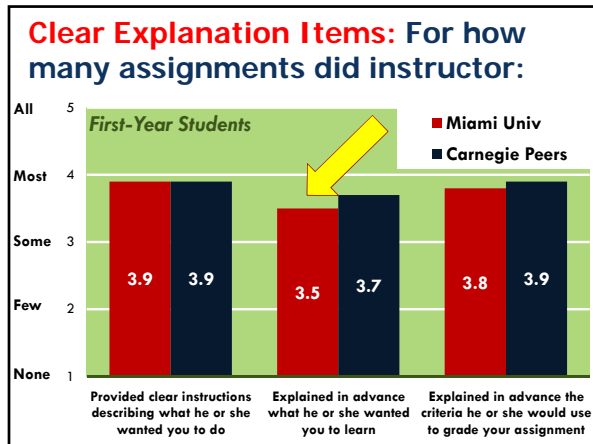


Target 3: Specific Practice (items)

- Determine which item in a best practice scale might produce the most improvement

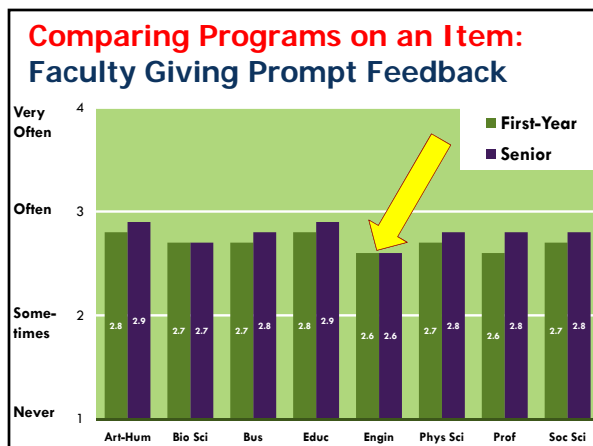
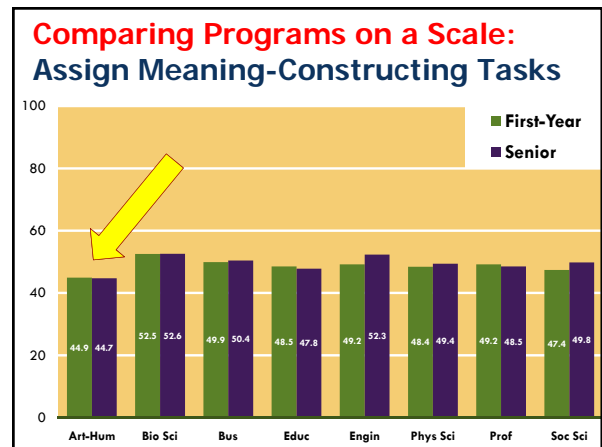
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Target 4: Specific Programs

- Look at data from each department
 - For best practice scales
 - For individual items that constitute the scales



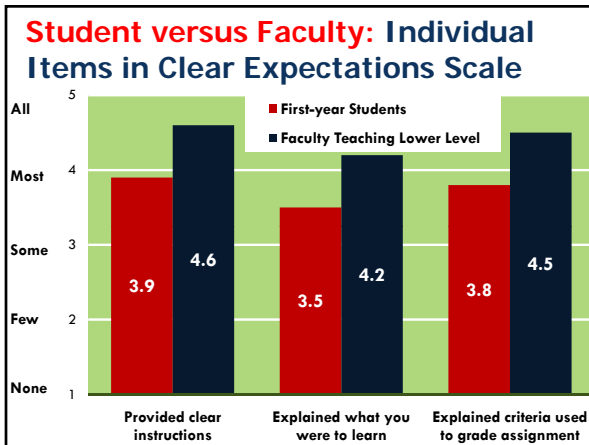
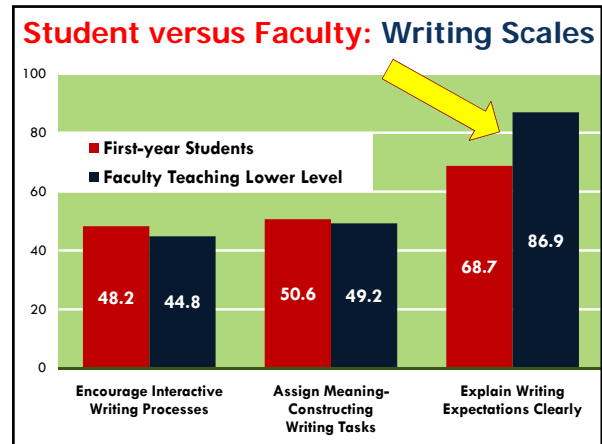
Findings from FSSE Can Help Targeting

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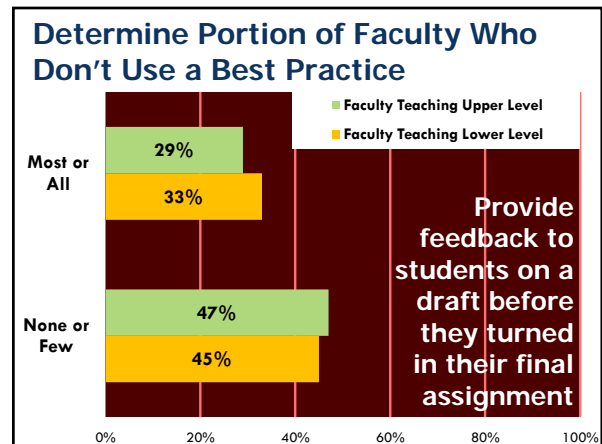
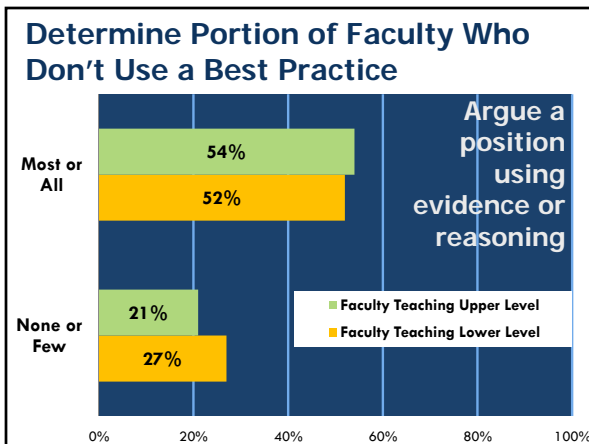
Student versus Faculty Perceptions

- Differences can suggest places where faculty believe they are using a best practice, but not succeeding fully



Distinguishing Levels of Usage


- Examining levels of usage can distinguish . . .
- situations where the primary action is to help faculty use a best practice more effectively from
- situations where the primary action is to persuade faculty to use the best practice at all



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Tips and Approaches for Using the Writing Questions (NSSE and FSSE) for Gen Ed Assessment



Tips and Approaches

- ▣ Participate in the NSSE and FSSE writing consortia, or use the writing questions on your own
- ▣ Compare results to institutional peers and aspirations
- ▣ Note discrepancies between your students and faculty
- ▣ Look separately at results from the gains question about writing
- ▣ Target programs, departments, or student groups of greatest need
- ▣ Devise appropriate faculty and curricular development strategies
- ▣ Conduct research by combining writing results to school records such as student grades

THANK YOU



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