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

[Survey data chart]

AAC&U General Education Conference, Seattle, February 2009
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

- **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

- **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
Gauging Writing and Engagement Levels to Improve General Education Outcomes
Anderson, P. & Gonyea, R.M.

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)

<table>
<thead>
<tr>
<th>All students</th>
<th>Female</th>
<th>66%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Part-time</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>First-generation</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>African American</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>Hispanic/Latino</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seniors only</th>
<th>Transfer</th>
<th>39%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Arts &amp; Humanities</td>
<td>15%</td>
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<tr>
<td></td>
<td>Biological Sciences</td>
<td>8%</td>
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<tr>
<td></td>
<td>Business</td>
<td>16%</td>
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<tr>
<td></td>
<td>Education</td>
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<tr>
<td></td>
<td>Engineering</td>
<td>5%</td>
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<tr>
<td></td>
<td>Physical Sciences</td>
<td>4%</td>
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<tr>
<td></td>
<td>Professional Fields</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Social Sciences</td>
<td>16%</td>
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</tbody>
</table>

Data & Sample

- **Institutions**: 151 from NSSE 2008 and 2009

<table>
<thead>
<tr>
<th>Carnegie</th>
<th>Doc RU-VH</th>
<th>17%</th>
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<tbody>
<tr>
<td>Doc RU-H</td>
<td>21%</td>
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<tr>
<td>Doc DRU</td>
<td>3%</td>
<td></td>
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<tr>
<td>Masters-L</td>
<td>30%</td>
<td></td>
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<tr>
<td>Masters-M</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Masters-S</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Bac-AS</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Bac-Diverse</td>
<td>6%</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>Private</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>70%</td>
<td></td>
</tr>
</tbody>
</table>
Variables

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

Writing and Deep Learning

Results adjusting for student characteristics and writing amount

<table>
<thead>
<tr>
<th>First-Year Students</th>
<th>Higher-Order Learning Activities</th>
<th>Integrative Learning Activities</th>
<th>Reflective Learning Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
<td>Encourage Interactive Writing Processes</td>
<td>✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Assign Meaning: Constructing Writing Tasks</td>
<td>✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Explain Writing Expectations Clearly</td>
<td>✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
</tr>
</tbody>
</table>

Writing and Gains

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

<table>
<thead>
<tr>
<th>First-Year Students</th>
<th>General Education</th>
<th>Personal &amp; Social Competencies</th>
<th>Practical Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
<td>Encourage Interactive Writing Processes</td>
<td>✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
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<td></td>
<td>Explain Writing Expectations Clearly</td>
<td>✓ ✓ ✓</td>
<td>✓ ✓ ✓</td>
</tr>
</tbody>
</table>

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.

Writing Scales: MU versus Peers

Target 2: Specific Practice (scale)

- Determine which best practice scale might produce the most improvement.

Writing Scales: MU versus Peers

Target 3: Specific Practice (items)

- Determine which item in a best practice scale might produce the most improvement.
Gauging Writing and Engagement Levels to Improve General Education Outcomes
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Clear Explanation Items: For how many assignments did instructor:

- Provided clear instructions describing what he or she wanted you to do
- Explained in advance what he or she wanted you to learn
- Explained in advance the criteria he or she would use to grade your assignment

Meaning Constructing Items: In how many assignments did you:

- Summarize something
- Analyze, evaluate something
- Describe research
- Argue a position
- Explain numerical data
- Write in style of discipline
- Address an audience

Target 4: Specific Programs
- Look at data from each department
- For best practice scales
- For individual items that constitute the scales

Comparing Programs on a Scale: Assign Meaning-Constructing Tasks

Comparing Programs on an Item: Faculty Giving Prompt Feedback

Findings from FSSE Can Help Targeting
Student versus Faculty Perceptions

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

Student versus Faculty: Writing Scales

- Encourage Interactive Writing Processes: First-year Students = 48.2, Faculty Teaching Lower Level = 44.8
- Assign Meaning-Constructing Writing Tasks: First-year Students = 50.6, Faculty Teaching Lower Level = 49.2
- Explain Writing Expectations Clearly: First-year Students = 68.7, Faculty Teaching Lower Level = 86.9

Student versus Faculty: Individual Items in Clear Expectations Scale

- Provided clear instructions: First-year Students = 3.9, Faculty Teaching Lower Level = 4.6
- Explained what you were to learn: First-year Students = 3.5, Faculty Teaching Lower Level = 4.2
- Explained criteria used to grade assignment: First-year Students = 3.8, Faculty Teaching Lower Level = 4.3

Distinguishing Levels of Usage

- Situations where the primary action is to help faculty use a best practice more effectively
- Situations where the primary action is to persuade faculty to use the best practice at all

Determine Portion of Faculty Who Don’t Use a Best Practice

- Argue a position using evidence or reasoning:
  - Most or All: Faculty Teaching Upper Level = 54%, Faculty Teaching Lower Level = 52%
  - None or Few: Faculty Teaching Upper Level = 21%, Faculty Teaching Lower Level = 27%

- Provide feedback to students on a draft before they turned in their final assignment:
  - Most or All: Faculty Teaching Upper Level = 29%, Faculty Teaching Lower Level = 33%
  - None or Few: Faculty Teaching Upper Level = 47%, Faculty Teaching Lower Level = 45%
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Tips and Approaches for Using the Writing Questions (NSSE and FSSE) for Gen Ed Assessment

- 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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