Using NSSE to Assess and Enhance Student Engagement and Student Success: Lessons from the Field

Assessment Institute 2008, Indianapolis

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The NSSE Challenge

How might we more effectively use data about quality in undergraduate education to:

✓ provide evidence of student learning
✓ motivate and inspire effective educational practice
✓ strengthen the learning environment?

What Really Matters: Student Engagement

Because individual effort and involvement are the critical determinants of impact, institutions should focus on the ways they can shape their academic, interpersonal, and extracurricular offerings to encourage student engagement.

Pascarella & Terenzini, How College Affects Students, 2005, p. 602

NSSE Core Purposes

Institutional Improvement
Public Advocacy
Documenting Good Practice

NSSE Results

• Are diagnostic; to help institutions look holistically at undergraduate experience
• Help pinpoint aspects not in line with mission, or what institution expects
• Identify weaknesses and strengths in educational program
• Help institutions know what to focus on to improve student learning and success

Customized Institutional Report

✓ Overview
✓ Institutional data
✓ Means and frequencies
✓ 1st year students and seniors
✓ Comparisons by peers, Carnegie, national
✓ National benchmarks
✓ Data use tips
✓ Student-level data, etc.
✓ And more!
NSSE Benchmarks - Five Clusters of Effective Educational Practice

- Supportive Campus Environment
- Enriching Educational Experiences
- Level of Academic Challenge
- Active & Collaborative Learning
- Student Faculty Interaction

NSSE Scalelets
(use in further analyses, and for particular focus)

- Course Challenge
- Writing
- Higher-Order Thinking Skills
- Integrative Learning
- Active Learning
- Collaborative Learning
- Course Interaction
- Out-of-Class Interaction
- Information Technology
- Diversity Experience
- Support for Student Success
- Interpersonal Environment

Reminder: Recent NSSE Enhancements

- Institutions create up to 3 customized peer comparison groups (2007)
- All content of Institutional Report available for download from secure site (2007)
- Increased sample sizes for web-based administration (2006)

NSSE Suite of Assessment Instruments

- National Survey of Student Engagement (NSSE)
- Faculty Survey of Student Engagement (FSSE)
- Beginning College Survey of Student Engagement (BCSSE)

Using NSSE, FSSE, BCSSE: What Kinds of Questions can be answered?

- “Thermometer” Questions
  How many students/faculty...?
- “How Do We Compare” Questions
  Do we score above or below institutions like us?
- “Looking Within - Comparing Groups” Questions
  Do X and Y do certain things differently?
- “Relationship” Questions
  Are those who x more likely to y?
- “Multiple Data Source” Questions
  What do faculty and students say about...?

Are our FY students experiencing active learning?

- What percent of our First-Year students report that they frequently (often + very often) ask questions in class?
  a). 25%  b). 36%  c). 52%  d). 68% (compared to 70% at Bac LACs)
- Plus, only 42% of our First-Year students report that they frequently work with peers on projects in class...
- Should this be higher given our institutional size, and expressed commitment to active learning in the first year experience?
**Thermometer Questions - Checking Your Campus’s Temperature…**

### Seniors Never Participating

- Prepare Multiple Drafts
- Faculty Activities Out-of-Class
- Tutoring Others
- Service Learning
- Faculty Career Plans
- Faculty Ideas Out-of-Class

### Thermometer Questions - Checking Your Campus’s Temperature…

**FSSE Quiz**

- What percentage of class time does the average faculty member spend lecturing?
  - 23%
  - 44%
  - 55%
  - 63%

### Thermometer Questions - Checking Your Campus’s Temperature…

**BCSSE-Faculty Interaction**

- What percent of students in high school report that they frequently (often + very often) interact with faculty outside of class?
  - a). 15%
  - b). 26%
  - c). 35%
  - d). 42%

- What is the relationship between student reports of the extent to which they interact with faculty outside of class in high school and their expectation for doing this in college?

### Are we Better or Worse…

**How Do We Compare?**

**Supportive Campus Environment (SCE)**

<table>
<thead>
<tr>
<th>Benchmark Comparisons</th>
<th>NSSEville State</th>
<th>Selected Peers</th>
<th>Carnegie Peers</th>
<th>NSSE 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>60.7</td>
<td>55.6</td>
<td>59.4</td>
<td>59.1</td>
</tr>
<tr>
<td>Senior</td>
<td>58.7</td>
<td>55.6</td>
<td>59.4</td>
<td>56.6</td>
</tr>
</tbody>
</table>

### Are we Better or Worse…

**Comparing Against Other Institutions**

- Unlike NSSE...
  - FSSE and BCSSE do not provide institution-versus-peer-group comparisons
- But,
- Find FSSE and BCSSE “Grand Frequency” results that can be used as reference points at www.fsse.iub.edu and www.bcsse.iub.edu

### Are we Better or Worse…

**Looking Within and Comparing Groups…**

**Collaborative Learning: Seniors by Major**

- % SR frequently (very often+ often) worked with classmates outside of class to prepare assignments
Looking Within and Comparing Groups…

FSSE - Percentage of Class Time

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>Small Grp</td>
<td>18%</td>
<td>11%</td>
</tr>
<tr>
<td>Experiential</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Other</td>
<td>28%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Answering Questions with BCSSE Data

- What do we know about entering students expectations about studying?
- BCSSE asks of entering college students:
  
  “During the coming school year, about how many hours do you think you will spend in a typical 7-day week preparing for your class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)?”

- Does this differ by gender?

National Survey of Student Engagement

BCSSE - Time Spent Studying per Week at Institution A, by Gender

<table>
<thead>
<tr>
<th></th>
<th>Institution A</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 11 hrs</td>
<td>23%</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>11-20 hrs</td>
<td>54%</td>
<td>52%</td>
<td>55%</td>
</tr>
<tr>
<td>&gt; 20 hrs</td>
<td>23%</td>
<td>18%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Predicting Retention at Elon University

- Students’ relationship with peers predictive of retention. Elon considering programs/services to foster these relationships, checking published findings & best practice.

- Are Those Who... Also...?

Rationale for Using NSSE in Accreditation

- Student engagement results are a direct indicator of what students put into their education, and because the survey measures participation in various types of effective educational practices it provides an indirect measure of student gains.
- NSSE results indicate areas for improvement and are “actionable” - thus, appropriate for inclusion in quality improvement plans.

Improvement Initiative: Co-curricular Involvement in the First Year

- Interpreting NSSE results for Institution A:
  
  “About half of our FY students spend no time on co-curricular activities. This seems really low. What did our students do in high school?”

- Institution reviews CIRP data. Their entering students are lower than the norm. Admissions confirms most new students worked part-time jobs in high school, likely limiting co-curricular involvement.

Putting NSSE Data to Use: Assessment and Accreditation

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- NSSE results indicate areas for improvement and are “actionable” - thus, appropriate for inclusion in quality improvement plans.
NSSE Accreditation Tool-kit

1. Background information on using student engagement in accreditation
2. Customized to each of the six regional accrediting bodies; and specialized accreditors AACSB, ABET, NCATE
3. Complete map of NSSE items to accreditation standards
4. Vignettes from other institutions on using NSSE in accreditation

NSSE in your assessment plan

- How often should I administer NSSE?
  - Every Year: Gives you a snapshot of each class
  - Every Three Years: Gives you a picture of a cohort at the beginning and the end of their college experiences; time to implement initiatives in response
  - Every Five Years: Works well with most accreditation cycles (Accreditation and Interim Reports)
- Other factors to consider
  - Establishing a baseline
  - Costs (using all core surveys)
  - Additional Surveys/Sources of Data
  - Time to absorb results, make changes

Pace University: An Overview

- Urban/suburban university
- Size: 12,600 Students
- 9,000 FTE
- Major metro area: NYC 11.7 million
- Carnegie Class: Doctoral Research University
- US News Ranking: 3rd Tier National
- Four Campuses and seven sites in NY metropolitan region
- Two-thirds undergraduate and one third graduate/professional
- Six Schools/College Arts and Sciences Business Computer Science/Information Systems Education Law Nursing

Five Years of NSSE Data at Pace University

The Challenge of Student Satisfaction

Results from 2002-2006
- 1078 First-year students
- 1030 Seniors

Five Year Improvement Trends

- Student - Faculty Interactions
  * Discussing grades with instructors
  * Talking about career plans with a faculty member or advisor
  * Working with faculty members on activities other than coursework
  * Receiving prompt feedback from faculty on academic performance

Improvement Trends: Active and Collaborative Learning

- Asking questions in class or contributing to class discussions
- Working with other students on projects during class
- Participating in a community-based project
The Challenge of Improving Student Satisfaction

- How would you evaluate your entire experience at this institution?

- If you could start over again, would you go to the same institution you are now attending?

Unambiguously Satisfied Students

- Students who chose overall educational experience “good” or “excellent”

And also chose

- Would “probably” or “definitely” come back to the same institution

NSSE Five Year Study

- Which engagement activities do you think were most closely related to satisfied students?

Top Ten Engagement Activities Strongly Correlated with Satisfied Students

1. Quality of academic advising
2. Provided support to succeed academically
3. Quality of relationships with faculty members
4. Coursework contributed to acquiring a broad general education
5. Quality of relationships with administrative offices

Top Ten Engagement Activities Strongly Correlated with Satisfied Students

Coursework contributed to:
6. Writing clearly and effectively
7. Speaking clearly and effectively
8. Thinking critically and analytically
9. Acquiring job or work-related skills
10. Solving complex real-world problems

What We Did With This Information

- Results to President and Provost
- Results to Academic Deans
- Results presented at Executive Council
- University Assessment Committee developed Five Year NSSE Newsletter sent to all faculty through Provost’s listserv.
- Five Year Study presented at annual Pace University Faculty Institute
The Impact of This Information

- Quality of Academic Advising
- Hiring Freeze – further evaluation of positions by President and Provost
- Assisted Academic Deans to help determine priorities
- Provided evidence to support Associate Provost for Student Success in the First-Year Seminar Restructuring Project and proposed Comprehensive Freshman Advising Program

The Need

- Unlike Freshman Year, there were no initiatives or programs that addressed needs of sophomores.
- While Freshman retention remained stable, Sophomore retention dropped by 9 percentage points each year.

NSSE Provides Clues

- Freshman NSSE results provide a context for understanding students’ experiences as they enter their sophomore year.

NSSE Clues

- Quality of Relationships with Faculty
- Quality of Relationships with Other Students
- Quality of Relationships with Administrative Personnel and Offices
- Academic Challenge
- Supportive Campus Environment
- Student Satisfaction

Connecting Research on Sophomores to Pace University NSSE Results

- Members learn about “Sophomore Slump.”
Further Investigation of NSSE Responses

- Sophomore Survey
- Sophomore Focus Groups

Results of Work Thus Far

- Creation and piloting of the “Pace Plan”
- Development of a Career Exploration Course
- Sophomore Kick-off Day
- Transfer, Exploring and Commuter Student Outreach
- Restructuring of registration, bursar and financial aid offices

Results of Work Thus Far

- Sophomore Advising
- Lambda Sigma Honor Society
- Mentoring
- E-Portfolio
- Academic Enrichment
- Registration E-Blast
- Four Year Plan

E-Source

- http://appserv.pace.edu/emplibrary/esource_sep t06.pdf

Using NSSE Results for Strategic Plan Assessment

- 2003-2008 Pace University Strategic Plan
- Core Objective II - Reinforce Commitment to be a Student-Centered University

<table>
<thead>
<tr>
<th>NSSE Survey Results</th>
<th>2002-03</th>
<th>2003-04</th>
<th>2005-06*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive campus environment (100 point scale)</td>
<td>Pace Freshman</td>
<td>58.8</td>
<td>55.1</td>
</tr>
<tr>
<td></td>
<td>Doctoral Intensive</td>
<td>58.4</td>
<td>59.1</td>
</tr>
<tr>
<td></td>
<td>Pace Seniors</td>
<td>54.2</td>
<td>53.5</td>
</tr>
<tr>
<td></td>
<td>Doctoral Intensive</td>
<td>54.8</td>
<td>55.3</td>
</tr>
<tr>
<td>Quality of relationships with faculty (7 point scale)</td>
<td>Pace Freshman</td>
<td>5.06</td>
<td>4.96</td>
</tr>
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<td></td>
<td>Doctoral Intensive</td>
<td>5.37</td>
<td>5.37</td>
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<tr>
<td></td>
<td>Pace Seniors</td>
<td>5.21</td>
<td>5.17</td>
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<tr>
<td></td>
<td>Doctoral Intensive</td>
<td>5.5</td>
<td>5.48</td>
</tr>
<tr>
<td>Quality of relationships with administrative offices/personnel (7 point scale)</td>
<td>Pace Freshman</td>
<td>4.64</td>
<td>4.21</td>
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<tr>
<td></td>
<td>Doctoral Intensive</td>
<td>4.92</td>
<td>4.92</td>
</tr>
<tr>
<td></td>
<td>Pace Seniors</td>
<td>4.6</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>Doctoral Intensive</td>
<td>4.59</td>
<td>4.62</td>
</tr>
</tbody>
</table>

*2004-2005 was a local administration of NSSE, the results are not provided

2. Implement programs, training and administrative reorganization where necessary to emphasize quality in all student, staff and faculty contacts.
**Other Ways NSSE and Results are Used at Pace**

- Faculty Development/Colloquia
- Assess effectiveness of revised Core Curriculum
- Comparing Groups - e.g. Transfer vs. Native students, Residents vs. Commuters
- Target populations - Experiences of First Generation Students
- Local administration for schools/college oversampling
- Incorporated in accreditation/re-accreditation Self-Studies, e.g. NCATE, AACSB, ABET, 2009 Middle States visit

**Institutional Example: Focus on desired pedagogy**

- First-year students less involved in service learning than JMU desired.
- Workshops conducted to encourage faculty to adapt courses to include service learning
- Studied change in participation of students and instructional practice

**Institutional Example: Improving teaching & learning**

- NSSE and CIRP pointed to problems with first year students’ academic engagement, but WTAMU desired more holistic picture of students’ experience
- Conducted “Student Engagement Audit Focus Groups” - 2 focus groups per college to discover what faculty and students found educationally engaging and identify classroom experiences that were engaging and disengaging

**Institutional Example: Results Support Action**

NSSE results showed need for improvement in academic advising:

- Implemented professional advisors in residence halls
- Based on NSSE and internal survey, 50% faculty were interested in advising workshop
- Recommendation to provide faculty with regular workshops and advising newsletter
- VP of Academic Affairs to carry out comprehensive assessment of advising on campus

**Institutional Example: More Analysis**

Three Targeted Analyses:

- Comparison of SR students’ responses to education and personal growth items with peers at other institutions and NSSE cohort to assess performance on general learning objectives
- Comparison of responses of minority and non-minority students on items related to diversity
- Comparison of students’ responses on mental activities, study abroad, undergraduate research, and capstone project with peers and NSSE cohort

**Institutional Example: UW Green Bay Fall 2006 Freshman Seminar Pilot Study**

Graph comparing NSSE scores on 7 items - Freshman Seminar students VS. non-Seminar students:

- Item 1: Asked questions in class or contributed to class discussions
- Item 2: Worked with other students on projects DURING CLASS
- Item 3: Used e mail to communicate with an instructor
- Item 4: Talked about career plans with a faculty member or advisor
- Item 5: Discussed grades or assignments with an instructor
- Item 6: Coursework emphasized APPLYING theories or concepts to practical problems or in new situations
- Item 7: Coursework emphasized MAKING JUDGMENTS about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions

Graph showing mean scores for Seminar and No-Seminar students on each item.
Drake University is using its NSSE data to:
- Assess its general education curriculum, especially in the areas of service learning, multicultural understanding, and critical thinking skills.
- Inform the review of capstone courses and other culminating experiences.
- Combine with BCSSE results to provide insight into the review of undergraduate advising.

**Institutional Example**

**Using NSSE Data: Lessons Learned**
1. Make sure faculty and staff understand the concept of student engagement.
2. Collect enough data to use results at department/unit level.
3. Understand what engagement data represent and use and report results wisely.
4. Distribute responsibility for performance fairly (e.g., transfers).
5. Examine the results from multiple perspectives.
6. Link results to other information about the student experience and complementary initiatives.
7. Don’t allow the numbers to speak for themselves.
8. Manage the message and the media.

**Taking Action on Student Engagement Results**

**NSSE Virtues**
- Research based
- Focus on educationally purposeful activities
- Results point to areas where improvement is desirable
- Compelling face validity
- Established psychometrics
- Transparent operations
- Third party administration
- Random sampling
- Targeted sampling
- Flexibility: consortium question, modules
- Contributes to value-added estimates when linked to BCSSE, CLA, other outcomes measures
- Benchmarks for peer, national and other comparisons

**NSSE Cautions**
- Only one source of information
- Corroborate results
- Engagement skeptics
- Not an outcomes measure
- Denial in face of less-than-desirable results
- Eschew rankings

**Discussion and Questions**
- Can you share an example of NSSE use on your campus?
- What questions do you have about using NSSE for assessment, accreditation, and/or retention studies?
- What action might you take with your NSSE data?
- What other data do you have that might link to NSSE data?

For More Information .... www.nsse.iub.edu