Although the landscape of higher education is rapidly changing, “Seven Principles for Good Practice in Undergraduate Education” has been considered one of the best known sets of student engagement indicators (Chickering & Gamson, 1987). These principles include student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations, and respect for diverse talents and ways of learning.

A single measurement, however, cannot possibly capture the complexity of student learning outcomes. The University of North Dakota, a doctoral-intensive institution under the Carnegie Classification, has therefore searched for more meaningful approaches to evaluating how well UND fosters student learning and their engagement inside and outside of the classroom as well as how effective the policies and practices that UND uses to induce students to take part in these activities are.

The National Survey of Student Engagement (NSSE) survey, a widely used assessment tool, was conducted in 2000 and 2003 at the UND campus to determine the extent to which first-year students and seniors engage in educationally effective practice. As a survey, NSSE complements and extends existing research programs such as the CIRP Freshman Survey which has been administered continuously at UND since 1967 to entering freshmen to probe new students’ characteristics, attitudes, behaviors, views, and expectations prior to beginning their collegiate experience.

UND administered the Higher Education Research Institute (HERI) Faculty Survey in 1995 and 2001 to determine its faculty issues including teaching practices, research activities, interaction with students and colleagues, perceptions of institutional climate, as well as job satisfaction. In conjunction with the HERI Faculty Survey, the Faculty Survey of Student Engagement (FSSE) designed to parallel NSSE’s survey of students was also pilot tested at UND in Spring 2003. The comparative results of the 2003 NSSE and FSSE allowed UND to measure faculty expectations for student engagement in educational practices that are known to be empirically linked with high levels of learning and development.

The primary purpose of this study is to investigate the benchmarks of institutional performance by weaving together information from surveys to understand students’ learning experience and progress under different pedagogical approaches while comparing them with their national counterparts on an array of attitudinal and engagement issues. The additional survey information from faculty members at UND is then used to identify areas of strength as well as aspects which may warrant attention in teaching and learning.

The likelihood of trends, differences, or the possible correlation between learning and personal development outcomes from these four national surveys will be identified on the basis of gender and class level, while accountability will be addressed in comparison with the national norm. The findings may help faculty, educators and administrators understand the educational activities that are associated with learning and personal development as well as guide strategic planning and assessment development.

Efforts to assess the quality of undergraduate education must look beyond an institution’s resources and towards its strategies for enriching the academic and social lives of its students. Overall, this study illustrates the efficacy of, leads to improvement in, and also demonstrates the important role that Institutional Research at UND is playing in the university strategic planning and the recent accreditation process in October 2003.
Good Practice in Undergraduate Education (Chickering & Gamson, 1987)

1. Encourages contact between students and faculty,
2. Develops cooperation among students,
3. Encourages active learning,
4. Gives prompt feedback,
5. Emphasizes time on task,
6. Communicates high expectations
7. Respects diverse talents and ways of learning.

Changes in the Educational Levels of Parents of Entering Freshmen, 1993-2002

<table>
<thead>
<tr>
<th>Highest level attained</th>
<th>Student’s mother</th>
<th>Student’s father</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1993</td>
<td>2002</td>
</tr>
<tr>
<td>Graduate degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9%</td>
<td>10%</td>
<td>+11%</td>
</tr>
<tr>
<td>College degree or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td>67%</td>
<td>+12%</td>
</tr>
<tr>
<td>High school or less</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31%</td>
<td>23%</td>
<td>-26%</td>
</tr>
</tbody>
</table>

Based on CIRP 2002. 32% of the Freshmen have been first generation college students and 37% have been second generation college students.

Changes in Aspirations for Advanced Degrees by Gender, CIRP 1993-2002

<table>
<thead>
<tr>
<th>Highest level attained</th>
<th>Female Freshmen</th>
<th>Male Freshmen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1993</td>
<td>2002</td>
</tr>
<tr>
<td>Bachelor</td>
<td>40%</td>
<td>37%</td>
</tr>
<tr>
<td>Masters</td>
<td>36%</td>
<td>31%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Medical</td>
<td>9%</td>
<td>16%</td>
</tr>
<tr>
<td>Law</td>
<td>3%</td>
<td>6%</td>
</tr>
</tbody>
</table>
**2002 RMS-CSI Summary of Academic Motivation by Gender**

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dropout Proneness</td>
<td>32.6%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Academic Difficulty</td>
<td>39.3%</td>
<td>46.9%</td>
</tr>
<tr>
<td>Education Stress</td>
<td>37.4%</td>
<td>49.7%</td>
</tr>
<tr>
<td>Receptivity to Help</td>
<td>49.7%</td>
<td>45.6%</td>
</tr>
</tbody>
</table>

**Specific Tasks of the RMS Advisor**

- Study the student profiles to identify potential needs
- Set up an appointment to meet with each student
- Discuss with the student the motivational pattern demonstrated on the report
- Refer students to the appropriate resources
- Suggest coping strategies
- Follow up with personal encouragement
- File a brief retention report with RMS coordinator

**Freshmen Fall Term GPA Range**

<table>
<thead>
<tr>
<th></th>
<th>2000 Fall</th>
<th>2001 Fall</th>
<th>2002 Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 to 1.99</td>
<td>25%</td>
<td>24%</td>
<td>21%</td>
</tr>
<tr>
<td>2.00 to 2.99</td>
<td>32%</td>
<td>30%</td>
<td>33%</td>
</tr>
<tr>
<td>3.00 to 3.99</td>
<td>36%</td>
<td>38%</td>
<td>37%</td>
</tr>
<tr>
<td>4.00</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
</tr>
</tbody>
</table>

**2002 Sophomore Survey**

The Number of Hours per week you spent on:

- **Watching TV**
  - 54% < 10 hrs
  - 33% 10-20 hrs
  - 9% 21-30 hrs
  - 1% 31-40 hrs
  - 1% > 40 hrs

- **Studying**
  - 26% < 10 hrs
  - 53% 10-20 hrs
  - 18% 21-30 hrs
  - 2% 31-40 hrs
  - 1% > 40 hrs

- **Working**
  - 49% < 10 hrs
  - 31% 10-20 hrs
  - 14% 21-30 hrs
  - 9% 31-40 hrs
  - 5% > 40 hrs

**2002 Sophomore Survey**

The Frequency with which you have done:

- **Discussed studies with an instructor**
  - 78% Very often and frequently
  - 13% Sometimes
  - 9% Never

- **Studied with others**
  - 70% Very often and frequently
  - 19% Sometimes
  - 11% Never

- **Discussed assignments with fellow students**
  - 45% Very often and frequently
  - 54% Sometimes
  - 11% Never

**2003 ACT Alumni Outcomes Survey**

Five Most Impacted Educational Experiences

1. Working cooperatively in groups or working as a team member
2. Recognizing and using effective written communications skills
3. Recognizing and using effective oral communications skills
4. Accessing and using a variety of information sources
5. Defining and solving problems
2001-2002 HERI Faculty Survey
Faculty's Goal for Undergraduate Students
% on Very Important and Essential

- Develop ability to think clearly (100% M, 100% F)
- Prepare for employment (70%, 73%)
- Prepare for responsible citizenship (65%, 77%)
- Enhance self-understanding (57%, 85%)
- Enhance knowledge for racial/ethnic groups (55%, 85%)
- Develop moral character (59%, 61%)
- Help students develop personal values (54%, 68%)
- Prepare for graduate education (57%, 51%)
- Enhance the out-of-class experience (39%, 54%)
- Instill community service (29%, 52%)
- Study a foreign language (32%, 45%)
- Provide emotional development (35%, 41%)
- Teach Western civilization (32%, 24%)
- Prepare family living (13%, 18%)

Presentation Overview
1. Why is student engagement important?
2. The National Survey of Student Engagement (NSSE)
3. Faculty Survey of Student Engagement (FSSE)
4. What do we know about the engagement of UND students?
5. The five benchmarks of good practice
6. Other important findings
7. Ways to enhance student engagement

National Survey of Student Engagement (NSSE) Survey Administration

- Administered to random sample of first-year & senior students
- Paper & Web-based survey
- Flexible to accommodate consortium questions
- Multiple follow-ups to increase response rates
- 43% response rate overall for all NSSE 2003 institutions
- 278 (113 male and 165 female) out of 689 students responded
- Response rate is 40%

NSSE Project Scope

- About 348,000 first-year and senior students were included in the NSSE 2003 sample
- 49 states, DC & Puerto Rico
- 437 4-year colleges and universities participated
- NSSE 2003 Institutions are included 5 Carnegie Types

<table>
<thead>
<tr>
<th>Year</th>
<th>Colleges/Universities</th>
<th>DOC/RES-EXT</th>
<th>DOC/RES-INT</th>
<th>Master's</th>
<th>BAC-LA</th>
<th>BAC-GEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>276</td>
<td>11%</td>
<td>8%</td>
<td>43%</td>
<td>16%</td>
<td>22%</td>
</tr>
<tr>
<td>2001</td>
<td>321</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>366</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>437</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What is Student Engagement?

- Represents two important aspects of collegiate quality:
  1. The amount of time and effort students put into their studies and other meaningful academic activities
  2. How the institution deploys resources and organizes its curriculum and other learning opportunities
- Correlates with student learning and retention
- Students who are actively involved in both academic and out-of-class activities gain more from the college experience than those who are not so involved

NSSE measures quality and satisfaction for activities that positively relate to student learning and development.

Information Collected from the Survey
1. demographic characteristics
2. assessment of academic challenge
3. engagement in learning activities
4. interaction with faculty
5. educational experiences
6. ratings of campus environment
7. progress toward learning goals
8. satisfaction with college
First-year student data can be used to target areas for improvement early in the education process while senior student data provides a broad educational experience view to gauge progress and future needs.

- At UND, three-fourths (74%) of first-year students and over half (51%) of seniors said their classes emphasized memorization to a substantial degree.
- About four-fifths (88%) of first-year students and seniors (92%) would attend UND if they were starting college again.
- Among 79 items, seniors received a higher mean score on 55 items, first-year students received 21 items, and no difference on 3 items.

The first-year students were more often than seniors in the following experiences:
1. Prepare two or more drafts of a paper or assignments
2. Included diverse perspective (race, religion, gender, political) in class discussions or assignments.
3. Had serious conversations with students of a different race or ethnicity.
4.Had serious conversations with students who are very different in their religious beliefs, personal value.
5. Coursework emphasizes memorizing.
6. Community service or volunteer work.
7. Study abroad.
8. Relaxing and socializing.
9. Attending campus events and activities.

The seniors were more often than first-year students in the following experiences:
1. Ask question in class or contributed to class discussion.
2. Worked with classmates outside of class to prepare class assignments.
3. Used e-mail to communicate with an instructor or other students.
4. Discussed grades or assignments with an instructor.
5. Talked about career plans with a faculty member.
6. Worked with a faculty member on a research project.
7. Received prompt feedback from faculty on academic performance.
8. Quality of relationships with faculty member.

### How Engaged Are UND Students?

<table>
<thead>
<tr>
<th>% on Often or Very Often</th>
<th>Freshmen</th>
<th>Senior</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicated with classmates online to complete academic work</td>
<td>42% (57%)</td>
<td>62% (65%)</td>
<td>59%</td>
<td>40%</td>
</tr>
<tr>
<td>Expressed ideas to a professor via email that you did not feel comfortable saying in class</td>
<td>16% (28%)</td>
<td>28% (30%)</td>
<td>16%</td>
<td>22%</td>
</tr>
<tr>
<td>How often do your instructors use information technology in the classroom</td>
<td>83% (70%)</td>
<td>76% (70%)</td>
<td>87%</td>
<td>76%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What percent of UND students spent 10 hours or less per week preparing for class?</th>
</tr>
</thead>
<tbody>
<tr>
<td>54% - Freshmen (45% at DOC-I)</td>
</tr>
<tr>
<td>47% - Senior (46% at DOC-I)</td>
</tr>
<tr>
<td>51% - Male (49% - Female)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What percent of UND students have never talked to faculty about readings outside of class?</th>
</tr>
</thead>
<tbody>
<tr>
<td>46% - Freshmen (45% at DOC-I)</td>
</tr>
<tr>
<td>31% - Senior (29% at DOC-I)</td>
</tr>
<tr>
<td>35% - Male (40% - Female)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effect Size</th>
<th>FY-UND</th>
<th>FY-DOC-I</th>
<th>SR-UND</th>
<th>SR-DOC-I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepared two or more drafts of a paper or assignment</td>
<td>3.00</td>
<td>2.65</td>
<td>2.51</td>
<td>2.53</td>
</tr>
<tr>
<td>Encouraging contact among students from different backgrounds</td>
<td>2.28</td>
<td>2.54</td>
<td>2.04</td>
<td>2.31</td>
</tr>
</tbody>
</table>

Effect Size = mean difference divided by DOC-I standard deviation
Five Benchmarks of Effective Educational Practice
Clusters of related activities, institutional actions, attitudes, and perceptions

1. Level of Academic Challenge
2. Active and Collaborative Learning
3. Student Interaction with Faculty Members
4. Enriching Educational Experiences
5. Supportive Campus Environment

Benchmark Score = the weighted mean on a 100-point scale

1. Level of Academic Challenge

Items on this benchmark include:
- Level of preparation for class
- Number of assigned books
- Number of written papers of varying length
- Types of cognitive demands emphasized by coursework

2. Active and Collaborative Learning

Items on this benchmark include:
- Contributions to class discussions
- Class presentations
- Work with other students on projects
- Frequency of discussions about readings outside of class

3. Student Interaction with Faculty Members

Items on this benchmark include:
- Frequency of discussions with faculty on a. Grades b. Assignments c. Career plans d. Readings
- Promptness of feedback
- Participation in research projects
4. Enriching Educational Experiences

Items on this benchmark include:

- Participation in co-curricular activities
- Involvement in community service
- Participation in internships and co-ops
- Enrollment in capstone courses
- Study abroad

5. Support Campus Environment

Items on this benchmark include:

- Perceived support to succeed academically
- Perceived support to thrive socially
- Perceived quality of relationships with:
  a. Other students
  b. Faculty
  c. Administrators

Standard Scores of UND at the Doctoral-Intensive Group
Other Important Findings

1. Self-Reported Hours Per Week
   Spent Preparing for class
   53% (45% DOC-I) of first-year and 47%
   (46% DOC-I) spent 10 or fewer hours

2. Quality of Advising
   72% (74% DOC-I) of first-year and 67% (65% DOC-I)
   of senior students rated Good or Excellent on advising

3. Satisfaction with One’s Educational Experience
   On a 4-point scale ranging from Poor to Excellent,
   first-year students rated a mean score of 3.11
   (3.14 DOC-I) and senior students rated a 3.15
   (3.04 DOC-I) on the educational experience

4. Comparing to the NSSE 2000 results, first-year students
   at 2003 improved on the 74% of the items and senior
   students improved on the 50% of the items

Faculty Survey of Student Engagement (FSSE)

- FSSE is designed to measure faculty expectations for student engagement in
  educational practices that are empirically linked with high level of learning and
  development.
- FSSE results can be used to identify areas of strength as well as aspects of the
  undergraduate experience that may warrant attention. This information is intended to be a
  catalyst for productive discussions related to teaching, learning, and the quality of
  students’ educational experience.

Faculty Survey of Student Engagement (FSSE) 2003 Pilot Test

- More than 14,000 faculty members
- 143 four-year institutions
- Parallels NSSE undergraduate survey
- A web survey
- Results intended as catalyst for discussions about quality of
  students’ educational experience
- Helps professors enrich the
  students’ college experience
- 166 (92 male and 66 female) out of
  391 responded
- Response rate is 43%

Ranks of the Faculty Participants

- Professor
- Associate Professor
- Assistant Professor
- Instructor and Lecturer

Tenure Status of the Faculty Participants

- Tenured
- Tenure-Track
- Not on Tenure Track

Connecting NSSE and FSSE
Academic and Intellectual Experiences
(% on Very Often or Often)

- Receive prompt feedback from you on their academic performance
- Participate in a community-based project as part of your course
- Use an electronic medium to discuss or complete an assignment

Evaluation of Student Performance
(% on Very Much)

Mental Activities

<table>
<thead>
<tr>
<th>% on Very Much or Often</th>
<th>FY</th>
<th>SR</th>
<th>LD</th>
<th>UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorizing</td>
<td>78%</td>
<td>58%</td>
<td>49%</td>
<td>23%</td>
</tr>
<tr>
<td>Analyzing</td>
<td>73%</td>
<td>82%</td>
<td>79%</td>
<td>86%</td>
</tr>
<tr>
<td>Synthesizing</td>
<td>55%</td>
<td>71%</td>
<td>68%</td>
<td>77%</td>
</tr>
<tr>
<td>Making judgment</td>
<td>58%</td>
<td>65%</td>
<td>60%</td>
<td>67%</td>
</tr>
<tr>
<td>Applying</td>
<td>72%</td>
<td>78%</td>
<td>70%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Educational and Personal Growth
(% on Very Much or Quite a Bit)

<table>
<thead>
<tr>
<th></th>
<th>FY</th>
<th>SR</th>
<th>LD</th>
<th>UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquiring a broad general education</td>
<td>81%</td>
<td>78%</td>
<td>77%</td>
<td>40%</td>
</tr>
<tr>
<td>Acquiring job-related knowledge and skills</td>
<td>52%</td>
<td>73%</td>
<td>42%</td>
<td>68%</td>
</tr>
<tr>
<td>Writing clearly/effectively</td>
<td>66%</td>
<td>72%</td>
<td>42%</td>
<td>67%</td>
</tr>
<tr>
<td>Speaking clearly/_effectively</td>
<td>49%</td>
<td>67%</td>
<td>25%</td>
<td>45%</td>
</tr>
<tr>
<td>Thinking critically/analytically</td>
<td>77%</td>
<td>85%</td>
<td>81%</td>
<td>94%</td>
</tr>
<tr>
<td>Analyzing quantitative problems</td>
<td>55%</td>
<td>72%</td>
<td>34%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Enriching Educational Experiences
(% on Very Important or Important)

<table>
<thead>
<tr>
<th></th>
<th>FY</th>
<th>SR</th>
<th>LD</th>
<th>UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicum, internship, field experience, co-op experience</td>
<td>70%</td>
<td>72%</td>
<td>70%</td>
<td>73%</td>
</tr>
<tr>
<td>Community service/volunteer work</td>
<td>60%</td>
<td>58%</td>
<td>32%</td>
<td>42%</td>
</tr>
<tr>
<td>Participation in a learning community</td>
<td>20%</td>
<td>23%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td>Work on a research project with a faculty outside of program requirement</td>
<td>23%</td>
<td>25%</td>
<td>28%</td>
<td>25%</td>
</tr>
<tr>
<td>Foreign language coursework</td>
<td>38%</td>
<td>38%</td>
<td>38%</td>
<td>30%</td>
</tr>
<tr>
<td>Study abroad</td>
<td>22%</td>
<td>8%</td>
<td>45%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Quality of Relationships
(% on Friendly, Supportive, Sense of Belonging)

<table>
<thead>
<tr>
<th></th>
<th>FY</th>
<th>SR</th>
<th>LD</th>
<th>UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student relationships with other students</td>
<td>33%</td>
<td>33%</td>
<td>13%</td>
<td>21%</td>
</tr>
<tr>
<td>Student relationships with faculty members</td>
<td>15%</td>
<td>19%</td>
<td>9%</td>
<td>23%</td>
</tr>
<tr>
<td>Student relationships with administrative personnel and officers</td>
<td>12%</td>
<td>11%</td>
<td>6%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Where Do We Go from Here?

- UND community is pleased with several of the findings. Our students gave high marks to the quality of advising and the supportive campus environment.
- The NSSE confirms several of our concerns about the experiences students are having at UND. We now have a better grasp of a few strategic improvements are needed.
- Use student and faculty matched items as a way to begin general discussions about which engagement activities might become a greater priority on campus.
- Look more closely at our new students’ expectations. Changing academic expectations is not an easy task, but it is an area of strategic importance.
- Step up our efforts to articulate student learning outcomes and assess the effectiveness of its curricular.

"As an educator, it's an embarrassment that we can tell people almost anything about education except how well students are learning."

Patrick M. Callan, president of the National Center for Public Policy and Higher Education
San Francisco Chronicle
January 9, 2001

Things to think about . . .

- Encourage students to:
  1. collaborate with peers
  2. make more presentations
  3. engage in more discussions outside of class
  4. make more capstone courses
  5. study abroad
- Emphasize the importance of diversity
- Provide needed academic and social support
- Raise expectations regarding the amount of time students should devote to their studies

Using NSSE and FSSE

- Use with ND Board of HE, faculty groups, and student groups
- New student & faculty orientation
- Alumni sponsored events for new freshmen
- Publications and communications
- Recruiting and Admission
- Retention planning
- Student satisfaction
- Benchmarking for accreditation
- National comparisons

Questions and Discussion

For more information:

About presentation material:
http://www.und.nodak.edu/dept/datacol/presentations/index.htm

Or contact Jean Chen at jean_chen@mail.und.nodak.edu

2003 AIRUM Annual Conference
Bloomington, MN, November 6, 2003