Using High-Impact Activities to Maximize Student Gains

Todd Chamberlain
Indiana University
Center for Postsecondary Research
toachamb@indiana.edu

NSSE Webinar
June 23, 2009

Outline
1. Nature of high-impact activities.
2. Outcomes of participation.

Six Conditions That Mark High-Impact Educational Practices

1. Time on Task
   • Activities demand that students devote considerable time and effort to purposeful tasks.
   • Most require daily decisions that deepen students' investment in the activity.

2. Faculty & Peer Interaction
   • Nature of activities puts students in circumstances that essentially demand that they interact with faculty and peers about substantive matters over a period of time.

3. Interaction with Diversity
   • Participation increases the likelihood that students will experience diversity through interaction with people who are different from themselves.
   • Students are challenged to develop new ways of thinking & responding to novel circumstances.
4. Frequent Feedback

• May be faculty, internship supervisors, peers, others.

• Close proximity may provide opportunities for nearly continuous feedback.

5. Connections Between Learning Context & Real-World Settings

• Opportunities for students to see how what they are learning works in on and off campus settings.

6. Occur in Context of Coherent, Academically Challenging Curriculum

• Infused with opportunities for active, collaborative learning.

• Students better understand themselves in relation to others and the larger world.

High-Impact Practices

★ First-Year Seminars and Experiences
★ Common Intellectual Experiences
★ Learning Communities
★ Writing-Intensive Courses
★ Collaborative Assignments and Projects
★ “Science as Science Is Done”; Undergraduate Research
★ Diversity/Global Learning
★ Service Learning, Community-Based Learning
★ Internships
★ Capstone Courses and Projects

High-Impact Activities Measured by NSSE

• Learning Communities
• Service Learning
• Research with a Faculty Member
• Study Abroad
• Culminating Senior Experience

Additional questions were added to the NSSE 2007 survey at some institutions to explore:

• Learning Communities
• Research with a Faculty Member
• Study Abroad
• Culminating Senior Experience
Relationship Between High-Impact Practices and NSSE Outcome Scales

**DEEP LEARNING** includes: integration of ideas or information from various sources; discussing ideas with faculty outside class; making judgments about the value of information; applying theories to practical problems in new situations.

**GENERAL EDUCATION** includes: writing, speaking, thinking critically.

**PERSONAL/SOCIAL DEVELOPMENT** includes: developing a personal code of values & ethics; understanding people of other racial & ethnic backgrounds; learning effectively on your own.

**PRACTICAL COMPETENCE** includes: acquiring job or work-related knowledge & skills; working effectively with others; solving complex real-world problems.

**MORE INFO ON SCALES:**
nsse.iub.edu/pdf/Norms%20and%20Scales-%202008NSSE_Scales_Scalelets.pdf

### Effects of Participating in High-Impact Practices on Deep/Integrative Learning and Gains

<table>
<thead>
<tr>
<th></th>
<th>First-Year Students</th>
<th>Seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learning Communities</td>
<td>Service Learning</td>
</tr>
<tr>
<td>Deep Learning</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>General Education</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Personal/Social Development</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>Practical Competence</td>
<td>++</td>
<td>++</td>
</tr>
</tbody>
</table>

*p < .001; ++ p < .001, Unstd B >.10; +++ p < .001, Unstd B >.30

### Conclusion:

High-impact practices appear to engage participants at levels that elevate their performance across multiple engagement and desired outcomes measures.

### High-Impact Activities

- All associated with desirable learning and personal development outcomes.
- Some features have more impact.
- Not all students participate.
Learning Communities (LCs)

- Formal program where groups of students (FY) take two or more classes together
- NSSE explored different program features of LC’s ...

Learning Community Program Characteristics

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrative course or discussion group</td>
<td>69%</td>
</tr>
<tr>
<td>Related to academic major</td>
<td>54%</td>
</tr>
<tr>
<td>Required out-of-class activities</td>
<td>61%</td>
</tr>
<tr>
<td>Courses closed to LC students</td>
<td>44%</td>
</tr>
<tr>
<td>Assignments integrate material</td>
<td>41%</td>
</tr>
<tr>
<td>Undergraduate peer advisors</td>
<td>42%</td>
</tr>
<tr>
<td>Majority of courses in LC</td>
<td>33%</td>
</tr>
<tr>
<td>Residential</td>
<td>18%</td>
</tr>
</tbody>
</table>

Learning Community (LC) Characteristics and Gains

- Students who frequently integrate material from LC classes benefitted more in terms of gains, deep approaches to learning, and an enriched social life.
- Required out-of-class activities were related to gains in self-understanding, deep learning, and an enriched social life.

Learning Community (LC) Characteristics and Gains

- An undergraduate peer advisor is associated with reports of more supportive campus environment and an enriched social life.
- Living-learning communities linked to the quality of social life, but not other outcomes.

Learning Communities

- Adult learners and first generation college students were less likely to participate in a LC.
- Students who live on campus, full-time students, and members of Greek organizations were more likely.

Effects of Participating in High-Impact Practices on Deep/Integrative Learning and Gains

<table>
<thead>
<tr>
<th>First-Year Students</th>
<th>Seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Communities</td>
<td>Study Abroad</td>
</tr>
<tr>
<td>Service Learning</td>
<td>++</td>
</tr>
</tbody>
</table>

Deep Learning

- ++
- ++

General Education

- ++
- ++

Personal/Social Development

- ++
- ++

Practical Competence

- ++
- ++

*p < .001; ** p < .001, Unstd B > .10; *** p < .001, Unstd B > .30
Study Abroad

- More likely at Bac A&S, private colleges.
- A life changing experience, but also relates to immediate learning outcomes upon return to home campus.
- Living with host nationals related to more integrative and reflective learning, and personal and social gains.
- The length of time spent abroad did not make a difference.

Study Abroad: Implication for Practice

- Amount of time abroad not as important as whether student has such an experience.
- Value in increasing short-term cross-cultural or “study away”, “May term” opportunities for students who cannot be away from their home institution for extended period of time

Culminating Senior Activities

- Capstone course, senior project/thesis, comp exam, etc.
- A third (32%) of seniors reported having completed such an experience, and another 29% said they planned to do so before graduating.
- Bac A&S, private, and engineering

Culminating Senior Activities

- Half of students worked alone; 40% worked with others
- Field placements have impact on greatest number of gains,
- Also beneficial:
  - Projects that required the greatest investment of time,
  - Working in groups,
  - Meeting often with supervising faculty member, and
  - Receiving clear expectations for the activity.
Service Learning
• Community-based project as part of a regular course
• More likely to be present at smaller and private institutions
• Positively associated with deep learning and personal development

Assessment questions about high-impact practices
1. How often are students experiencing high-impact practices?
2. Do all students have an equal likelihood of participating? To what extent do underrepresented students participate?
3. Are these practices done well?

Student engagement varies more within than between institutions.

Lesson: Look at student variation within your institution. How do experiences differ by major, student subgroups, who are our least engaged students?

Inventory of High-Impact Practices

<table>
<thead>
<tr>
<th>Learning Communities</th>
<th>Service Learning</th>
<th>Research with Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Our Campus</td>
<td>Y</td>
<td>X</td>
</tr>
<tr>
<td>Required for all</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>% Students Involved</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>% First Generation</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>% Transfer Students</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>% African American</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>% Latino Students</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>% Asian American</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>% Other</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Participation in High-Impact Educational Experiences

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>First-Year Experiences</th>
<th>Senior Year Experiences</th>
<th>Cumulating Exp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learning</td>
<td>Community</td>
<td>Service</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Selective</td>
<td>18%</td>
<td>36%</td>
<td>23%</td>
</tr>
<tr>
<td>More Selective</td>
<td>16%</td>
<td>36%</td>
<td>20%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>17%</td>
<td>37%</td>
<td>17%</td>
</tr>
<tr>
<td>Asian Pacific Islander</td>
<td>16%</td>
<td>37%</td>
<td>23%</td>
</tr>
<tr>
<td>White</td>
<td>17%</td>
<td>36%</td>
<td>19%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>20%</td>
<td>36%</td>
<td>17%</td>
</tr>
<tr>
<td>Part-Time</td>
<td>10%</td>
<td>26%</td>
<td>12%</td>
</tr>
<tr>
<td>Full-Time</td>
<td>17%</td>
<td>37%</td>
<td>21%</td>
</tr>
<tr>
<td>No</td>
<td>18%</td>
<td>37%</td>
<td>22%</td>
</tr>
<tr>
<td>Yes</td>
<td>15%</td>
<td>35%</td>
<td>16%</td>
</tr>
<tr>
<td>Transfer? Started Here</td>
<td>17%</td>
<td>37%</td>
<td>23%</td>
</tr>
<tr>
<td>Started Elsewhere</td>
<td>13%</td>
<td>32%</td>
<td>14%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 24</td>
<td>17%</td>
<td>37%</td>
<td>23%</td>
</tr>
<tr>
<td>24 or Older</td>
<td>10%</td>
<td>24%</td>
<td>13%</td>
</tr>
</tbody>
</table>

NSSE Connecting the Dots Finding: Compensatory Effect of Engagement

- Student engagement positively related to student grades and to persistence for all students
- Engagement has compensatory effect on FY grades & persistence to the second year. Historically underserved students tend to benefit more from engagement than majority students.
What to do??

Make it possible for every student to participate in at least two high impact activities

- One in First Year
  - FY seminars
  - Learning communities
  - Service learning
- One Later in Major
  - Study abroad
  - Student-faculty research
  - Field placement or internship
  - Capstone project

One Campus Response: IUPUI

- Make Undergraduate Learning Outcomes clear to students
- Intensive learning communities
- Personal Development Planning (PDP)
- RISE Initiative

Make Undergraduate Learning Outcomes clear to students

In the classrooms...

Principles of Undergraduate Learning
Core Communication and Quantitative Skills

Make Undergraduate Learning Outcomes clear to students

In the stairwells...

RISE initiative at IUPUI

- Research
- International Study Abroad
- Service Learning
- Experiential Learning

Every student earning a bachelor’s degree will complete at least 2 of the 4 types of qualifying RISE educational experiences

Personal Development Planning (PDP)

PDP is a process to enable first-year students at IUPUI to understand, implement, and mark progress towards a degree and a career goal by creating and following a personalized plan that is open to revision and reevaluation every semester in collaboration with an academic advisor.
Recommendation: If you have NSSE Results think about...

- To what extent do our students report participation in high-impact activities? Do all students participate?
- What % of First-Years report that they “plan to do” a learning community, work on a research project with a faculty member, or study abroad? How are these expectations set?
- Linking your student-level NSSE results to student information to gain greater insights into who participates and how they benefit (GPA, retention, outcomes measures).

Recommendations
For high-impact activities to make more of a difference to student learning & success....

1. Ensure all students have a chance to participate in these experiences – are students in some majors less likely to participate? To what extent do first-generation students take advantage of these experiences?

Recommendations
For high-impact activities to make more of a difference to student learning & success....

2. Reduce barriers to participation, encourage all students to see potential for their involvement.
3. Ensure programs are of high quality. What is your evidence for effectiveness?
4. Know how your students benefit from the experience.

Recommendation
Consider Student Success Research on Underrepresented Groups

- Students with a history of social and educational marginalization attribute successful outcomes to the formation of supportive relationships with institutional agents, or practitioners.
- Institutional agents foster minority students’ sense of belonging, validate their knowledge, experience, and hopes, and help them muster the confidence and courage to succeed in college.


Additional Material

NSSE Annual Report 2007
Summarizes results on the nature and effects of student participation in high-impact practices, as well as which students participate. Free PDF.

AAC&U High-Impact Educational Practices
Much of the content is the same as the NSSE Annual Report 2007, but it provides context for the AAC&U LEAP initiative. $15 for AAC&U members, $25 for non-members.
http://www.aacu.org/leap/HIP.cfm

Questions?
Todd Chamberlain
touchamb@indiana.edu
www.nsse.iub.edu