USING THE DIVERSE LEARNING ENVIRONMENTS SURVEY TO ASSESS AND IMPROVE STUDENT LEARNING

TEAGLE MEETING
SEPTEMBER 23, 2011
ATLANTA, GA

LAURA PALUCKI BLAKE
ASSISTANT DIRECTOR, COOPERATIVE INSTITUTIONAL RESEARCH PROGRAM
HIGHER EDUCATION RESEARCH INSTITUTE, UCLA

A Collaboration Between Faculty, Student Affairs, and Institutional Research
Agenda

- Current context in higher education—Why Diverse Learning Environments matter
- Briefly Introduce DLE as a tool for assessing institutional climate and practices and how they relate to student outcomes
- Understand potential applications of DLE results to examine STEM persistence
- Discussion and Questions
Why Assess Diversity on Campus?

- Move from reactive stance to proactive stance
- Research now demonstrates that diversity is an asset in learning—we need to know more about creating the conditions to optimize engagement and desired outcomes
- Understand the experiences of target populations to diminish inequity and improve experiences
- Understand how to improve services to meet student needs

Transformation is fostered by both external and a strong internal impetus for equity and improvement.
DLE Instrument

- Inclusive of diverse social identities
- Longitudinal, encourage its use linked with other student data
- Modules targeting specific topics
Conceptualization of Diverse Learning Environments and Assessment

- Built a survey that linked
  - Climate (perceptions and behaviors)
  - Practices (what institutions do)
  - Student outcomes (what students can do)

- Allows campuses to link climate with actual programs and practices, and student participation in educational activity associated with diversity
Multi-Contextual Model for Diverse Learning Environments

Key Survey Themes and Constructs

- Discrimination and Harassment
- Positive Cross-racial Interaction
- Negative Cross-racial Interaction
- Institutional Commitment to Diversity
- Academic Validation in the Classroom
- Conferences Across Difference
- Student Financial Difficulty
- General Interpersonal Validation
- Sense of Belonging

Student Participation in:
- Curriculum of Inclusion
- Co-Curricular Diversity Activities
- Navigation
- Student Support Services
Key Survey Themes and Constructs

Outcomes

- Integration of Learning
- Habits of Mind
- Pluralistic Orientation
- Social Agency
- Civic Engagement
- Academic Self-Concept
Sense of Belonging
Academic Validation in the Classroom
General Interpersonal Validation
# Sense of Belonging ($\alpha = .864$)

**Measures the extent to which students feel a sense of academic and social integration on campus**

*Please Indicate the extent to which you agree or disagree with the following statements:*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel a sense of belonging to my campus</td>
<td>.884</td>
</tr>
<tr>
<td>I feel that I am a member of this college</td>
<td>.836</td>
</tr>
<tr>
<td>I see myself as a part of the campus community</td>
<td>.787</td>
</tr>
<tr>
<td>If asked, I would recommend this college to others</td>
<td>.611</td>
</tr>
</tbody>
</table>
What influences Sense of Belonging?

- Perceptions of the campus climate for both white and students of color (Hurtado et al 2007)
- Positive interactions with diverse peers
- Different predictors for different racial/ethnic groups
- Sense of Belonging impacts persistence (Hausmann 2007)
Academic Validation in the Classroom

\( \alpha = .895 \)

The extent to which students view of faculty actions in class reflect concern for their academic success

<table>
<thead>
<tr>
<th>Please indicate how often you have experienced the following in class at this college:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt that faculty provided me with feedback that helped me assess my progress in class ( (.857) )</td>
</tr>
<tr>
<td>Felt like my contributions were valued in class ( (.852) )</td>
</tr>
<tr>
<td>Faculty were able to determine my level of understanding of the course material ( (.799) )</td>
</tr>
<tr>
<td>Felt that faculty encouraged me to ask questions and participate in discussions ( (.790) )</td>
</tr>
</tbody>
</table>
General Interpersonal Validation
$(\alpha = .864)$

Unified measure of students’ view of faculty and staff’s attention to their development

**Please indicate the extent to which you agree or disagree with the following statements:**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one faculty member has taken an interest in my development</td>
<td>.833</td>
</tr>
<tr>
<td>At least one staff member has taken an interest in my development</td>
<td>.804</td>
</tr>
<tr>
<td>Faculty believe in my potential to succeed academically</td>
<td>.791</td>
</tr>
<tr>
<td>Staff recognize my achievements</td>
<td>.728</td>
</tr>
<tr>
<td>Faculty empower me to learn here</td>
<td>.615</td>
</tr>
<tr>
<td>Staff encourage me to get involved in campus activities</td>
<td>.547</td>
</tr>
</tbody>
</table>
Notable differences between groups

- Students of color report lower levels of validation than White students, difference greater for Academic Validation in the Classroom.

- “Faculty empower me to learn here” directly related to academic validation in the classroom as well as general interpersonal validation for students of color, but not for White students.

- Strong relationship between validating classroom experiences and students feeling generally empowered by faculty.
Curriculum of Inclusion
Co-Curricular Diversity Activities (Campus-Facilitated)
Measures the number of courses a student has taken that include materials and pedagogy addressing diversity

<table>
<thead>
<tr>
<th>How many courses have you taken at this institution that included the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials/reading about race/ethnicity (.829)</td>
</tr>
<tr>
<td>Materials/reading about socioeconomic class differences (.829)</td>
</tr>
<tr>
<td>Materials/reading about gender (.789)</td>
</tr>
<tr>
<td>Materials/reading about privilege (.784)</td>
</tr>
<tr>
<td>Materials/reading about sexual orientation (.783)</td>
</tr>
<tr>
<td>Opportunities for intensive dialog between students with different backgrounds and beliefs (.701)</td>
</tr>
<tr>
<td>Materials/reading about disability (.610)</td>
</tr>
<tr>
<td>Opportunities to study and serve communities in need (e.g., service learning) (.506)</td>
</tr>
</tbody>
</table>
Co-Curricular Diversity Activities (Campus-Facilitated) ($\alpha = .894$)

Is a measure of students’ involvement with institutional programs focused on diversity

<table>
<thead>
<tr>
<th>Since entering this college have you:</th>
<th>Since entering this college how often have you:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended presentations, performances, and art exhibits on diversity (.668)</td>
<td></td>
</tr>
<tr>
<td>Attended debates or panels about diversity issues (.792)</td>
<td></td>
</tr>
<tr>
<td>Participated in ongoing campus-organized discussions on racial/ethnic issues (e.g. intergroup dialogue) (.850)</td>
<td></td>
</tr>
<tr>
<td>Participated in LGBT Center activities (.711)</td>
<td></td>
</tr>
<tr>
<td>Participated in Racial/Ethnic or Cultural Center activities (.820)</td>
<td></td>
</tr>
<tr>
<td>Participated in Women’s/Men’s Center activities (.769)</td>
<td></td>
</tr>
</tbody>
</table>
Habits of Mind
Integration of Learning
Habits of Mind ($\alpha = .862$)

<table>
<thead>
<tr>
<th>Since entering this college how often have you:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seek solutions to problems and explain them to others (.721)</td>
</tr>
<tr>
<td>Evaluate the quality and reliability of information you received (.703)</td>
</tr>
<tr>
<td>Seek alternate solutions to a problem (.671)</td>
</tr>
<tr>
<td>Support your opinions with a logical argument (.670)</td>
</tr>
<tr>
<td>Seek feedback on your academic work (.612)</td>
</tr>
<tr>
<td>Explore topics on your own, even though it was not required for class (.597)</td>
</tr>
<tr>
<td>Take a risk because you had more to gain (.593)</td>
</tr>
<tr>
<td>Ask questions in class (.537)</td>
</tr>
<tr>
<td>Revise your papers to improve your writing (.537)</td>
</tr>
<tr>
<td>Accept mistakes as part of the learning process (.518)</td>
</tr>
<tr>
<td>Look up scientific research articles and resources (.501)</td>
</tr>
</tbody>
</table>
Integration of Learning (α = 0.615)

Is a measure of student behavior that reflects integrating, connecting and applying concepts and ideas.

Indicate how often you have engaged in each of the following at this institution:

- Applied concepts from courses to real life situations (.652)
- Use different points of view to make an argument (.587)
- Integrated skills and knowledge from different sources and experiences (.533)
DLE Results

- A window into understanding the undergraduate experience
- Discover strengths and weaknesses in educational programs
- Identify areas that need attention to improve student success
- Help pinpoint aspects not in line with mission, or what you as an institution (or department, program) expect
- Link with other institutional data
Questions to Investigate using DLE Results

- Indicators about the quality of the learning environment
  - Sense of Belonging

- Description of interactions with faculty and staff
  - General Interpersonal Validation
  - Academic Validation in the Classroom
Questions to Investigate using DLE

Results

- **Progress Indicators:**
  - Since expanding our GEMS and Center for Teaching and Learning Programs, have we seen changes in key climate areas like Sense of Belonging, Interpersonal Validation, Academic Validation in the Classroom; or in outcomes like Habits of Mind and Integration of Learning?

- **Retention issues:**
  - Are those who withdraw from the sciences different than those who do not? How? What key experiences are successful STEM students having?
Using the DLE to Shape Educational Experiences and Document Outcomes

- Evidence about the nature of campus climate
  - Indicators at the item level
    - Student participation in tutoring or other academic assistance
    - Participated in study groups
    - Attended a professor’s office hours
  - Factors - Curriculum of Inclusion, Validation in the Classroom, Sense of Belonging

Compare differences by gender, race/ethnicity, students in GEMS/CTL programs, residence, first generation Students etc.
“Have you participated in any of the following academic programs at this college: undergraduate research program” How many incoming students said they intended to work with faculty on research (TFS)? How many have by DLE? How many Seniors (CSS) report they did this? How do results compare with peer comparison schools? If students want to participate in research, but few did, what action can campus take?
Examining Participation in Undergraduate Research

- Do you know the proportion of first year students in your major or program who report they intend to work with faculty on research?

- What proportion actually work with faculty? Are there differences by gender, race/ethnicity, etc? Do you believe this is higher or lower than peer schools?

- If you are lower than peers or lower than you want, what might you do?

- What other information or corroborating data might you have on campus about undergraduate research and students educational goals that should be brought to bear?

- What might these results suggest in terms of shaping student expectations and developing programs?
Administering the DLE

- Web-based only
  - Core Survey
  - 5 Optional Modules
  - Space for 20 additional multiple choice questions
- Data available in “real time”
- Reports with comparative data available September
Diverse Learning Environments Survey

Modules

- **Classroom Climate Module**
  - Asks respondents about their perception of the classroom environment and the various types of pedagogical practices employed by instructors.

- **Transition to the Major Module**
  - Asks respondents about their experiences in selecting a major, for students who have not yet declared a major as well as those who have declared a major.

- **Intergroup Relations Module**
  - Asks respondents about their capacity to engage respectfully across group differences.
Diverse Learning Environments Survey
Modules

- **Climate for Transfer at 2-Year Institutions Module**
  - Asks respondents about practices at 2-year institutions regarding the transfer pathway and climate of support. For 2-year institutions/community colleges only.

- **Climate for Transfer Students at 4-Year Institutions Module**
  - Asks respondents about their transitional experiences understanding the campus climate at 4-year institutions. Administered at 4-year institutions, contains questions relevant to all respondents and those who transferred to the institution.
Comments and Questions

lpblake@ucla.edu

www.heri.ucla.edu