The Wabash National Study: The Impact of Teaching Practices and Institutional Conditions on Student Growth

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Overview

• Wabash National Study has two components
  - Research
  - Using Wabash Study data to improve student learning

• In this session we will
  - Describe our findings on outcome growth
  - Describe how we have worked with campuses to use the data
  - Discuss the challenging relationship between national research and campus efforts to improve student learning
Wabash Study

- Longitudinal
- 49 institutions
  - Cohort 1 (2006): 19 institutions
  - Cohort 2 (2007): 8 institutions
  - Cohort 3 (2008): 26 institutions
- 17,000 students
  - Cohort 1 (2006)
    ‣ \( n(T1) = 4501; n(T2) = 3081; n(T3) = 2212 \)
  - Cohort 2 (2007)
    ‣ \( n(T1) = 3374; n(T2) = 1305; n(T3) = ? \)
  - Cohort 3 (2008)
    ‣ \( n(T1) = 9628; n(T2) = 4228; n(T3) = ? \)
### Wabash Study Outcome Measures

<table>
<thead>
<tr>
<th>Measure</th>
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</thead>
<tbody>
<tr>
<td>Academic Motivation Scale</td>
</tr>
<tr>
<td>ACT Collegiate Assessment of Academic Proficiency Critical Thinking Test</td>
</tr>
<tr>
<td>Contribution to the Arts and Humanities Scale</td>
</tr>
<tr>
<td>Contribution to the Sciences Scale</td>
</tr>
<tr>
<td>Defining Issues Test of Moral Reasoning (Version 2)</td>
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<tr>
<td>Miville-Guzman Universality-Diversity Scale (Short Form)</td>
</tr>
<tr>
<td>Need for Cognition Scale</td>
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<tr>
<td>Openness to Diversity and Challenge Scale</td>
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<tr>
<td>Political and Social Involvement Scale</td>
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<tr>
<td>Positive Attitude toward Literacy Scale</td>
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<tr>
<td>Ryff Scales of Psychological Well-Being</td>
</tr>
<tr>
<td>Socially Responsible Leadership Scale (Revision 2)</td>
</tr>
</tbody>
</table>
### Wabash Study Student Experience Scales

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Teaching and High-Quality Interactions with Faculty</td>
<td>23 items</td>
</tr>
<tr>
<td>Academic Challenge and High Expectations</td>
<td>31 items</td>
</tr>
<tr>
<td>Diversity Experiences</td>
<td>9 items</td>
</tr>
<tr>
<td>NSSE Deep Learning</td>
<td>12 items</td>
</tr>
<tr>
<td>Frequency of Interactions with Faculty and Staff</td>
<td>9 items</td>
</tr>
<tr>
<td>Interactions with Peers</td>
<td>9 items</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>4 items</td>
</tr>
</tbody>
</table>
Goal - Student-level information for both outcomes and experiences
Four-Year Change

Effect size (sd)

Moderate improvement

Moderate decline

-0.04
-0.10
-0.20
-0.24
0.31
0.13
-0.12
-0.13

Start
Year 1
Year 2
Year 3
Year 4

Psychological Well-Being
Universality-Diversity Awareness
Political & Social Involvement
Openness to Diversity/Challenge
<table>
<thead>
<tr>
<th></th>
<th>Moderate/High Growth</th>
<th>Small Growth</th>
<th>No Growth/Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking</td>
<td>57%</td>
<td>13%</td>
<td>30%</td>
</tr>
<tr>
<td>Socially Responsible Leadership</td>
<td>52%</td>
<td>13%</td>
<td>35%</td>
</tr>
<tr>
<td>Psychological Well-Being</td>
<td>51%</td>
<td>12%</td>
<td>37%</td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>49%</td>
<td>14%</td>
<td>37%</td>
</tr>
<tr>
<td>Moral Reasoning</td>
<td>62%</td>
<td>11%</td>
<td>27%</td>
</tr>
<tr>
<td>Universality-Diversity Awareness</td>
<td>42%</td>
<td>12%</td>
<td>46%</td>
</tr>
<tr>
<td>Positive Attitude toward Literacy</td>
<td>36%</td>
<td>11%</td>
<td>53%</td>
</tr>
<tr>
<td>Political &amp; Social Involvement</td>
<td>35%</td>
<td>7%</td>
<td>58%</td>
</tr>
<tr>
<td>Academic Motivation</td>
<td>27%</td>
<td>7%</td>
<td>66%</td>
</tr>
<tr>
<td>Openness to Diversity/Challenge</td>
<td>31%</td>
<td>8%</td>
<td>61%</td>
</tr>
<tr>
<td>Contribution to the Arts</td>
<td>26%</td>
<td></td>
<td>74%</td>
</tr>
<tr>
<td>Contribution to the Sciences</td>
<td>21%</td>
<td></td>
<td>79%</td>
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</tbody>
</table>
Working with campuses

- How we frame our work with campuses
  - Include all institutional assessment data, not just Wabash Study data
  - Do not treat Wabash Study data as dispositive
    ‣ Dashboard light
    ‣ “Not the window to your institution’s soul”
  - Engage in process of collaborative inquiry with faculty, staff, and students
  - Build a long-term relationship with interactions in multiple settings
Working with campuses (cont.)

• Prior to our visits we
  - Conduct separate analyses on campus data to review the relationship between outcomes and students’ experiences
    - Include measures from campus surveys, grades, and anything else we can merge with Wabash Study data
    - Focus our analyses on certain outcomes given the campus mission and/or our conversations with campus representatives
  - Review other survey or campus assessment data

• When we visit campuses we
  - Meet with groups of students and faculty prior to any broader campus conversations
  - Redo analyses based on these interviews
What do we learn from this approach?

• Our conversations with students can help explain the “whys” behind survey data
  - Example 1 - Lack of syllabi for first-year courses
  - Example 2 - Students being intimidated by faculty credentials

• Our conversations with students can reveal how survey questions about their experiences are interpreted differently on different campuses
  - Example 3 - View of student-faculty interactions
  - Example 4 - Institutional emphasis on academic work

• Our analyses and conversations can identify the “good practices” that matter on campus that do not matter in our overall analyses
  - Example 5 - Strong peer effects
  - Example 6 - Frequency of student-faculty interactions
Challenges for using data for improvement

- Few campuses have or use student-level, longitudinal data on outcomes and experiences
  - Runs contrary to VSA methodology
    - Institution-level outcome measures are very challenging to work with
- We have concerns about how to interpret self-report data on outcome change
- Methodological purity can block the ability to gather and use assessment data for change
- Many campuses do not talk with or listen to their students

- Without the combination of timely, longitudinal, student-level data on both outcomes and the learning environment, as well as qualitative information, responses to assessment data may be ineffective
More information

• About the Wabash Study
  - http://www.centerofinquiry.org

• About the Good Practices
  - http://www.centerofinquiry.org/study-research/

• About the Teagle Assessment Scholar Program
  - http://www.centerofinquiry.org/assessment-scholars/

• About the Higher Education Data Sharing Consortium
  - www.hedsconsortium.org