USING “BIG DATA” APPROACHES TO BETTER UNDERSTAND THE INTERNATIONAL STUDENT EXPERIENCE

Katherine Yngve, Associate Director of Learning Outcomes, CILMAR & Intercultural Learning Specialist, OIRAE

Lisa Lambert Snodgrass, PhD, Assistant Professor, Educational Leadership & Policy Studies
THE WHAT:
The GLOBE Study (2004)

- 62 societies; 17,300 middle managers; 951 organizations
- Organized the data into **regional clusters** as a method to
  - Analyze similarities and differences between cultural groups
  - Make meaningful generalizations about culture and leadership
- 10 distinct groups:

<table>
<thead>
<tr>
<th>Anglo</th>
<th>Latin Europe</th>
<th>Nordic Europe</th>
<th>Germanic Europe</th>
<th>Easter Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>Middle East</td>
<td>Sub-Saharan Africa</td>
<td>Southern Asia</td>
<td>Eastern Asia</td>
</tr>
</tbody>
</table>
Cluster Dimensions of Culture

Characteristics:
• **Anglo** – competitive & results oriented
• **Eastern Asia** – results-driven, encourage collaboration toward goals over the individual
• **Eastern Europe** – forceful, gender equality, collegial
• **Germanic Europe** – value competition, aggressiveness, results oriented
• **Latin America** – loyal, devoted to friends & family
• **Latin Europe** – individual autonomy
• **Middle East** – devotion/loyalty to own people, gender disparities
• **Nordic Europe** – long-term success priority, gender equity
• **Southern Asia** – strong familial ties, concern for community
• **Sub-Sahara Africa** – other focused, strong family devotion
SO WHAT:

• Research Method
  • Student Experience in the Research University (SERU) survey
  • Intercultural Knowledge & Competence VALUE Rubric (AAC&U)
  • Population: all undergraduate students enrolled in fall 2016
    • Sample: 2,944 SERU respondents

Table 1. Race/ethnicity

<table>
<thead>
<tr>
<th>Classification</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>6.4</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3.1</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>.16</td>
</tr>
<tr>
<td>International</td>
<td>23</td>
</tr>
<tr>
<td>Two or more</td>
<td>2.2</td>
</tr>
<tr>
<td>Unknown</td>
<td>2.5</td>
</tr>
<tr>
<td>White</td>
<td>58.2%</td>
</tr>
</tbody>
</table>

• Item Selection: based on best fit for each category of the IKC VALUE rubric
Figure 13: Percentage of students rating their ability to understand international perspectives when they began at the university.

Figure 14: Percentage of students rating their present ability to understand international perspectives.

Paired t-test of When you started and Now – ability to understand international perspectives

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 When you started here - Ability to understand international perspectives - Now - Ability to understand international perspectives</td>
<td>-1.06</td>
<td>1.91</td>
<td>0.30</td>
<td>-1.04 - 0.94</td>
<td>-33.95</td>
<td>126</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Goodman and Kriskal’s Gamma values by country cluster for Cross-tabulation of when you started and Now – ability to understand international perspectives

<table>
<thead>
<tr>
<th>Country Cluster</th>
<th>Gamma Value</th>
<th>Approximate Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Domestic</td>
<td>G = 0.55</td>
<td>p = 0.000</td>
</tr>
<tr>
<td>East Asia</td>
<td>G = 0.65</td>
<td>p = 0.000</td>
</tr>
<tr>
<td>South Asia</td>
<td>G = 0.79</td>
<td>p = 0.000</td>
</tr>
<tr>
<td>Other</td>
<td>G = 0.59</td>
<td>p = 0.000</td>
</tr>
</tbody>
</table>
NOW WHAT:

Our conclusions:

• Realization:

• Not all international student cultural groups are the same.

• Not all groups of international students are having the same educational experiences & outcomes.

• We can take, in our research, research-supported measures to avoid inaccurately clumping them together.

How might this methodology be useful/implemented at your institution?

• Your ideas

• More of your ideas

• Data may be used to inform differentiated advising, mentorship, and program development based on clusters.
THANK YOU!

Questions?

Katherine Yngve, Associate Director of Learning Outcomes, CILMAR & Intercultural Learning Specialist, OIRAE
kyngve@purdue.edu

Lisa Lambert Snodgrass, PhD, Assistant Professor, Educational Leadership & Policy Studies
lsnodgra@purdue.edu