The Assessment of Higher Education Learning Outcomes (AHELO)

OECD’s Study of the Scientific and Practical Feasibility of Assessing Baccalaureate-Level Student Learning Outcomes Across Nations

CHEA 2013 Annual Conference
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AHELO: 4 strands of work

**Discipline strand in Economics**
- Subject competence
- Application to Real World problems
- Effective use of relevant data and quantitative methods
- Communication

**Discipline strand in Engineering**
- Engineering Generic Skills
- Basic & Engineering sciences
- Engineering Analysis
- Engineering Design
- Engineering Practice

**Generic skills strand**
- Subject competence
- Application to Real World problems
- Effective use of relevant data and quantitative methods
- Communication

**Research-based “Value-added” or “Learning gain” measurement strand**
Participants

Observers: Bahrain, Brazil, Saudi Arabia, Singapore
AHELO Test Implementation

**Generic skills**
- International adaptation
- Validation: one cognitive lab per country
- 120 minutes
- 1 CRT
  - 25 MCQs
- Online delivery

**Economics**
- Frameworks and instruments developed with
- Validation: focus groups in participating institutions
- 90 minutes
- 1 CRT
  - 45 MCQs

**Engineering**
- 90 minutes
- 1 CRT
  - 30 MCQs

**3 contextual questionnaires:** Student, Faculty and Institution

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The Technical Advisory Group (TAG)

- Charged with Reviewing the Technical Adequacy of All Aspects of the AHELO Feasibility Study:
  - Assessment Frameworks and Instruments
  - Sampling and Test Administration Procedures
  - Analysis and Reporting
- Charged with Making Recommendations on Feasibility and the Future Conduct of an AHELO Main Study
Challenges Faced by the Feasibility Study

• Too Little Money and Too Little Time

• Translation and Contextual Variation

• Student Motivation for Tests that Do Not Count

• Debates About the Role of “Generic Skills” and How Best to Assess Them

• Perceptions [in the US] that Results Will Eventually be Used for Ranking
U.S. Involvement in AHELO

- U.S. researchers/assessment developers
- Substantial financial support from several American education foundations
- Not a “participating nation” until 2010
- CT, MO and PA and 11 universities participate in 2012 data collection
- Financial support and OECD voting representation by U.S. Dept. of Education
U.S. Higher Education Institutions Participating in AHELO Feasibility Study

- **Connecticut Board of Regents for Higher Education**
  - Southern Connecticut State University (public regional university; 9,000 undergraduates)

- **Missouri Department of Higher Education**
  - Central Methodist University (independent; 3,500 students)
  - Missouri State University (public institution; 16,000 undergraduates)
  - Truman State University (public institution; 6,000 undergraduates)
  - University of Central Missouri (public regional; 12,000 students)
  - Webster University (independent; 4,000 undergraduates)

- **Pennsylvania State System of Higher Education (PASSHE)**
  - Cheyney University of Pennsylvania (public historically black university; 1,300 undergraduates)
  - Clarion University (public institution; 5,100 undergraduates)
  - Edinboro University (public institution; 6,600 undergraduates)
  - Lock Haven University (public institution; 5,000 undergraduates)
  - Millersville University (public institution; 7,200 undergraduates)
U.S. Participants’ Roles

• National level
  - U.S. Dept of Education is member of OECD Education Governing Board
  - SHEEO—National Project Manager (NPM) and representative on project advisory board--Group of National Experts (GNE)
  - NCHEMS prepared sample files and will analyze national data
  - Foundations remain interested and involved

• State level
  - SHEEO agency provided project leadership, coordination, and oversight in Connecticut, Missouri and Pennsylvania

• Institutional level
  - AHELO Institutional Coordinator and “team”
  - IR office prepared student/faculty population files
  - Test Administration—recruitment, scheduling, monitoring
  - President, provost, faculty, media relations, graduate students
Generic Skills Assessment Framework/Design

- Two rotating performance tasks adapted from Collegiate Learning Assessment (CLA) – 90 minutes
- Selected response items from well-tested Australian item bank – 30 minutes
- Brief student experience survey
- Faculty/institutional web-based questionnaires
- All assessments, surveys and data entry done on secure international web sites
Steps and Timelines for Fieldwork, Analysis and Reporting

- Test administration by U.S. institutions using secure international testing websites (Feb-May)
- Assessments scored by lead scorer and five additional U.S. scorers trained using international scoring rubrics (May-June)
- Data files analyzed by ACER, reported to OECD and released to participating nations in Dec 2012
- Preparation, review and release of Feasibility Study findings and recommendations
- Final project conference March 2013
# Participation/Completion Results

<table>
<thead>
<tr>
<th>U.S. Institutions</th>
<th>Student completions/sample population</th>
<th>Faculty completions/sample population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution A</td>
<td>59/200 = 30%</td>
<td>24/40 = 60%</td>
</tr>
<tr>
<td>Institution B</td>
<td>54/273 = 20%</td>
<td>49/102 = 48%</td>
</tr>
<tr>
<td>Institution C</td>
<td>75/200 = 38%</td>
<td>28/40 = 70%</td>
</tr>
<tr>
<td>Institution D</td>
<td>131/196 = 69%</td>
<td>24/40 = 60%</td>
</tr>
<tr>
<td>Institution E</td>
<td>119/197 = 60%</td>
<td>45/61 = 74%</td>
</tr>
<tr>
<td>Institution F</td>
<td>66/200 = 33%</td>
<td>33/40 = 83%</td>
</tr>
<tr>
<td>Institution G</td>
<td>86/230 = 37%</td>
<td>28/40 = 70%</td>
</tr>
<tr>
<td>Institution H</td>
<td>33/200 = 17%</td>
<td>28/40 = 70%</td>
</tr>
<tr>
<td>Institution I</td>
<td>54/200 = 27%</td>
<td>31/40 = 78%</td>
</tr>
<tr>
<td>Institution J</td>
<td>34/200 = 17%</td>
<td>18/40 = 45%</td>
</tr>
<tr>
<td>Institution K</td>
<td>8/200 = 4%</td>
<td>18/40 = 45%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>719/2296 = 31%</strong></td>
<td><strong>326/523 = 62%</strong></td>
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</tbody>
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Questions from U.S. Participation

• What was the institutional experience from voluntary participation?
• What factors contributed to differences in student participation and performance?
• What student and institutional characteristics affect test results?
• How do U.S. students/institutions compare with other nations’ students/institutions?
• Are potential benefits worth the costs? At which levels?
Opportunities and Potential Ahead for Focusing AHELO

• Growing international interest in developing international assessment instruments
• Potential benefits particularly for emerging higher education systems and institutions
• Useful to students and receiving institutions operating in global environment
• Can provide stimulus and leveraging to achieve more transparent learning outcomes and transferable skills
Challenges and Limitations in Moving Ahead

- Need for clarity of focus and purpose
- Genuinely international instruments need to be developed
- Faculty and institutional ownership difficult but not impossible to achieve
- Distance/difficulty linking to improvements in teaching and learning—other supports needed
- Highly variable student motivation and institutional/cultural contexts
- National comparisons and international benchmarks may be prohibitively complex/costly