An Assessment Story:
The Common Liberal Arts Experience, Debunking a Misconception

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Emerging from Assessment Practice

- James Madison University (JMU)
  - Center for Assessment & Research Studies (CARS)
  - Ph.D. in Assessment & Measurement (A&M)
  - M.A. Psychological Science (esp. Quantitative Concentration)

Yelisey  Daigo  Brian
Upon attending this session, participants will be able to:

1. Understand how a culture of assessment lends itself to being able to answer unique questions.
2. Relate how common assessment reports analyzed through meta-assessment ratings can be used to investigate trends across multiple programs at an institution.
3. Leverage assessment into research to form more accurate, empirical-based claims.

Mapping to Session Discussion

- General Education Research Question
- JMU’s Assessment Practice
- Research Question Methodology
- Research Results & Conclusion
JMU’s Assessment Culture

- Aspirational
- Learning Improvement
- Practical & Specific
- Outcomes-based student learning

Our Vision

To improve higher education by inspiring and empowering faculty and staff to make evidence-based decisions to enhance student learning and development.
Assessment Practice

Assessment Progress Template (APT) & Rubric

◦ yearly report completed by program assessment coordinators
◦ guidance according to assessment cycle, outcomes-based assessment framework
  ◦ https://www.jmu.edu/assessment/AcademicProgram/AssessmentReporting.shtml
◦ Evaluating APTs, providing feedback, & follow-up services
  ◦ Time intensive
  ◦ Resource intensive, especially personnel
<table>
<thead>
<tr>
<th>1 – Beginning</th>
<th>2 – Developing</th>
<th>3 – Good</th>
<th>4 – Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Student-centered learning objectives</strong></td>
<td><strong>A. Clarity and Specificity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No objectives stated.</td>
<td>Objectives present, but with imprecise verbs (e.g., know, understand), vague description of content/skill or attitudinal domain, and non-specificity of whom should be assessed (e.g., “students”)</td>
<td>Objectives generally contain precise verbs, rich description of the content/skill or attitudinal domain, and specification of whom should be assessed (e.g., “graduating seniors in the Biology B.A. program”)</td>
<td>All objectives stated with clarity and specificity including precise verbs, rich description of the content/skill or attitudinal domain, and specification of whom should be assessed (e.g., “graduating seniors in the Biology B.A. program”)</td>
</tr>
<tr>
<td><strong>B. Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No objectives stated in student-centered terms.</td>
<td>Some objectives stated in student-centered terms.</td>
<td>Most objectives stated in student-centered terms.</td>
<td>All objectives stated in student-centered terms (i.e., what a student should know, think, or do).</td>
</tr>
</tbody>
</table>

APT Rubric: SLOs
**Student Learning Objectives (APT Element 1A & 1B)**

Student learning objectives (SLOs) are statements indicating what students should know, think, or do as a result of participating in an academic degree program. SLOs should be student-centered and be written clearly with precise, measurable verbs. There is no set number of SLOs required for the APT.

<table>
<thead>
<tr>
<th>Student Learning Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a result of participating in the [academic degree program] curriculum, students graduating with a [degree type] in [academic degree program] will:</td>
</tr>
</tbody>
</table>

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**APT Template: SLOs**
<table>
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<tr>
<td><strong>A. Relationship between measures and objectives</strong></td>
<td></td>
<td></td>
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<tr>
<td>Seemingly no relationship between objectives and measures.</td>
<td>At a superficial level, it appears the content assessed by the measures matches the objectives, but no explanation is provided.</td>
<td>General detail about how objectives relate to measures is provided. For example, the faculty wrote items to match the objectives, or the instrument was selected “because its general description appeared to match our objectives.”</td>
<td>Detail is provided regarding objective-to-measure match. Specific items on the test are linked to objectives. The match is affirmed by faculty subject experts (e.g., through a backwards translation).</td>
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<tr>
<td><strong>B. Types of Measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No measures indicated</td>
<td>Objectives are not assessed via direct measures (only with indirect measures).</td>
<td>Most objectives assessed with direct measures.</td>
<td>All objectives assessed using at least one direct measure (e.g., tests, essays).</td>
</tr>
</tbody>
</table>

APT Rubric: Instrumentation
**Assessment Measures (APT Element 3A & 3B)**

To obtain results that are useful for evaluating whether students met the stated SLOs, instruments must be selected to elicit the desired knowledge, skills, or attitudes from students. All SLOs should be measured by at least one instrument. Moreover, to obtain the strongest evidence of student learning, SLOs should be measured by a direct measure of student learning.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description of Instrument used to assess objective</th>
<th>Direct/Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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**APT Template: Instrumentation**
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Outcomes-Based Programming

General Education Exemplar

○ “JMU is nationally recognized for having an outcomes-based general education program”
○ SLOs created and periodically revised by faculty
○ SLOs nested by learning domains
  ○ 61 total SLOs
    ○ 3-8 SLOs per domain, 14 total domains, 1-8 courses per domain
    ○ SLOs within domains are linked to courses from a variety of disciplines
Most universities do not have an outcomes-based general education model.
A Common Gen Ed Design

Distribution Requirement Model
- introductory level courses
- across a range of disciplines
- pre-selected options

Characteristics of such courses
- nonspecialized audiences
- large class size
- breadth > depth
- lecture heavy
- standalone
Purpose of Gen Eds

Less concrete, more abstract
1. develop fuller/broader/more diverse perspective
2. knowledge for life
3. upstanding members of society
4. set up subsequent success
Educator and Student Perspectives

**EDUCATORS**

Some see value
  ◦ responsibility, ownership

Some question effectiveness
  ◦ ineffective, not challenging enough

**STUDENTS**

Strong theme of negative feedback
  ◦ Attend for vocational purposes
  ◦ distraction/interference, waste of resources
Why the negative sentiments?

Proposed theory: there is a disconnect between general education programs and academic programs
- questionable strength of claim
  - limited student knowledge on gen ed purposes
  - student behavior in taking gen ed courses

Need for empirical research
- As recommended by the literature: compare learning outcomes of general education & academic program
- JMU’s extensive assessment records
Research Methodology

Evaluate recent APTs for gen ed & all academic undergraduate programs

1. Two independent reviewers
2. Compared learning outcome overlap and referenced instrumentation information when needed
   a. designated SLOs as either having alignment or misalignment
3. Adjudicated to develop a consensus for all SLOs
   a. agreement between (mis)alignment
   b. disagreement in (mis)alignment
4. Third rater independently resolved disagreement, if they persisted after adjudication deliberations
Methodology Alignment Example

GENERAL EDUCATION OUTCOME

Critical Thinking
◦ Evaluate arguments for soundness, strength and completeness.

ACADEMIC PROGRAM OUTCOME

Art History
◦ Evaluate scholarship in art history thoughtfully and critically, noting strengths or weaknesses in areas such as logical argument and strength of historical evidence.
◦ Assessed via a rubric on an essay
### Methodology Misalignment Example

<table>
<thead>
<tr>
<th>GENERAL EDUCATION OUTCOME</th>
<th>ACADEMIC PROGRAM OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Critical Thinking</strong></td>
<td><strong>Health Sciences</strong></td>
</tr>
<tr>
<td>◦ Evaluate arguments for</td>
<td>◦ Differentiate the</td>
</tr>
<tr>
<td>soundness, strength and</td>
<td>socioeconomic, behavioral,</td>
</tr>
<tr>
<td>completeness.</td>
<td>biological, environmental</td>
</tr>
<tr>
<td></td>
<td>and other factors that</td>
</tr>
<tr>
<td></td>
<td>impact human health and</td>
</tr>
<tr>
<td></td>
<td>contribute to health</td>
</tr>
<tr>
<td></td>
<td>disparities.</td>
</tr>
<tr>
<td></td>
<td>◦ Assessed via a pre-post exam</td>
</tr>
</tbody>
</table>

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The Center for Assessment and Research Studies, James Madison University
Introducing academic programs & Results

51 undergraduate academic degree program APTs

- 633 student learning outcomes
- ~12 SLOs per program
  - standard deviation of 11
  - max = 64, min = 1

61 general education SLOs

293 (46%) matched
Distribution of academic degree programs with linked outcomes by general education domain

Gen Ed SLOs with most matches

1. Human Communication
   - Construct messages consistent with the diversity of communication purpose, audience, context, and ethics.

2. Quantitative Reasoning
   - Describe the methods of inquiry that lead to mathematical truth and scientific knowledge and be able to distinguish science from pseudoscience.

<table>
<thead>
<tr>
<th>General Education Domain</th>
<th>Number of Linked Outcomes Across Academic Programs</th>
<th>Number of Academic Programs with Linked Outcomes (% Out of All 51 Potential Programs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Communication</td>
<td>57</td>
<td>30 (58.8)</td>
</tr>
<tr>
<td>Writing</td>
<td>42</td>
<td>22 (43.1)</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>40</td>
<td>20 (39.2)</td>
</tr>
<tr>
<td>Information Literacy</td>
<td>26</td>
<td>16 (31.4)</td>
</tr>
<tr>
<td>Global Experience</td>
<td>22</td>
<td>9 (17.6)</td>
</tr>
<tr>
<td>American Experience</td>
<td>20</td>
<td>4 (7.8)</td>
</tr>
<tr>
<td>Physical Principles</td>
<td>17</td>
<td>9 (17.6)</td>
</tr>
<tr>
<td>Natural Principles</td>
<td>15</td>
<td>6 (11.8)</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>14</td>
<td>9 (17.6)</td>
</tr>
<tr>
<td>Visual and Performing Arts</td>
<td>12</td>
<td>4 (7.8)</td>
</tr>
<tr>
<td>Human Questions and Context</td>
<td>10</td>
<td>7 (13.7)</td>
</tr>
<tr>
<td>Sociocultural Domain</td>
<td>8</td>
<td>7 (13.7)</td>
</tr>
<tr>
<td>Literature</td>
<td>4</td>
<td>2 (3.9)</td>
</tr>
<tr>
<td>Lab Experience</td>
<td>3</td>
<td>3 (5.9)</td>
</tr>
<tr>
<td>Wellness</td>
<td>3</td>
<td>2 (3.9)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>293</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>
¹Explain the fundamental processes that significantly influence communication.

²Construct messages consistent with the diversity of communication purpose, audience, context, and ethics.

³Respond to messages consistent with the diversity of communication purpose, audience, context, and ethics.

⁴Utilize information literacy skills expected of ethical communicators.
A Misconception Debunking

Breadth & Depth of overlap
- at least one link
- many had numerous links

Robust assessment practice
- empirical support
- outcomes-based programming
Thank you for your attention!

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