Assessment and Learning Analytics Tools and Initiatives

Assessment and Blackboard Analytics (A4L)
CPS Academic Quality Assurance

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Who are We?

• **Faculty Support:**
  - Crafting program/course learning outcomes
  - Curriculum mapping
  - Assessment design (assignments, rubrics, surveys)
  - Data collection, analysis, reporting

• **Internally:** Collect data and report on program student learning outcomes (SLOs) for ALL programs, annually

• **Externally:** Assist in data collection and reporting (NECHE, Regional agencies)
Annual Assessment Cycle

**1V: Act**
- Plan for implementing PRP
- Implement PRP

**III: Analyze**
- Direct measures
- Indirect measures
- Previous year’s PRP
- Write-up Results & new PRP goals to align outcomes

**I: Define**
- Mission
- SLOs
- Course map
- Measures (Rubrics/Surveys)
- Benchmarks
- Data collection strategy

**II: Collect**
- Collect data from multiple sources
- Aggregate data

Annual Academic Report

Data Collection Direct Measures – Ongoing/By term*
# Program Assessment:

From Competencies to Rubrics
CPS Program Assessment: Sample Dashboard

Results on outcomes for one program:

% of Learners that Met the Benchmark

<table>
<thead>
<tr>
<th>Category</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialized Knowledge:</td>
<td>76%</td>
</tr>
<tr>
<td>Broad &amp; Integrative:</td>
<td>91%</td>
</tr>
<tr>
<td>Applied &amp; Collaborative:</td>
<td>76%</td>
</tr>
<tr>
<td>Civic &amp; Global:</td>
<td>94%</td>
</tr>
<tr>
<td>Experiential:</td>
<td>86%</td>
</tr>
</tbody>
</table>

- Personal Leadership Model
- Leadership in Action Assignment
- Capstone Project
- Strategic Plan
- ePortfolio Reflection
## Course Assessment: Rubric Evaluation Report

Results for a single class section:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Above Standard</th>
<th>Meets Standards</th>
<th>Approaching Standards</th>
<th>Below Standard</th>
<th>Number Evaluation</th>
<th>Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis Statement Points</td>
<td>10.00</td>
<td>9.00</td>
<td>7.50</td>
<td>5.00</td>
<td>7</td>
<td>9.14</td>
<td>10.00</td>
</tr>
<tr>
<td>Project Focus Points</td>
<td>10.00</td>
<td>9.00</td>
<td>7.50</td>
<td>5.00</td>
<td>7</td>
<td>9.21</td>
<td>9.00</td>
</tr>
<tr>
<td>Analysis and Evaluation Points</td>
<td>10.00</td>
<td>9.00</td>
<td>7.50</td>
<td>5.00</td>
<td>7</td>
<td>8.50</td>
<td>9.00</td>
</tr>
<tr>
<td>Relevant and Current Research Points</td>
<td>10.00</td>
<td>9.00</td>
<td>7.50</td>
<td>5.00</td>
<td>7</td>
<td>8.50</td>
<td>9.00</td>
</tr>
</tbody>
</table>

### Diagram

- **Thesis Statement**: Possible 10.00, Actual 9.14
- **Project Focus**: Possible 10.00, Actual 9.21
- **Analysis and Evaluation**: Possible 10.00, Actual 8.50
- **Relevant and Current Research**: Possible 10.00, Actual 8.50
Blackboard Analytics for Learn (A4L Project)

A4L Development Phases:
1. Initiate
2. Plan/Analyze/Design
3. Execute
4. Monitoring and Controlling
5. Deploy and Close

Benefits of A4L:

- Increase reporting efficiency
- Improve Faculty Development
- Promote self-regulated learning
- Optimize instructional design
- Assess current technology investments

(Blackboard, 2018)
Blackboard Analytics: Assessment Use Cases

- Ability to track curriculum and assessments related to Program SLOs by program or college, to inform stakeholders (students, faculty, and administrators) of progress towards meeting the SLOs.

- Ability to assess student performance on SLOs and related competencies (skills, knowledge, attitudes) using rubrics to grade signature assignments (high stakes assignments in upper level courses and capstone).
Blackboard Assessment Data

Outcomes Data of Interest:
- Blackboard Goals Features
- Gradebook Data
- Rubric Data
### Sample A4L Report: Rubrics

<table>
<thead>
<tr>
<th>Rubric Item Description</th>
<th>Rubric Row Description</th>
<th>Rubric Column Description</th>
<th>Grade Percent Description</th>
<th>Grade Percent Band 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development plan assignment</td>
<td>Connections</td>
<td>approaches standards</td>
<td>70%</td>
<td>70% - 74%</td>
</tr>
<tr>
<td>Development plan assignment</td>
<td>Use of resources</td>
<td>meets standards</td>
<td>85%</td>
<td>85% - 89%</td>
</tr>
</tbody>
</table>
Research Questions

- Does **student engagement** improve **academic outcomes**? If so, what types of engagement, and for what categories of students?

- Does **faculty engagement** improve academic outcomes? If so, what types of faculty engagement?

- What **course design strategies** and what tools improve academic outcomes?
Lessons
Learned

Validity and Reliability

Alignment
Measuring criteria (rubric) is aligned to the assignment and SLO. Criteria is transparent

Consistency
Use the same measure (signature assignment) and rubric

Accuracy
Rubrics are calibrated so data is the same (reliability)

Compare against a benchmark
“No one ever made a decision based on a number. They need a story.”

Daniel Kahneman(2011)
"Data is the foundation of all analytics efforts; absent a strong foundation of good data, any analytics effort will likely fail."

*Campbell and Oblinger (2007)*
“Course design and analytics work synergistically”

*Chickering and Gamson (1987)*
Resources & Support

Center for Advancing Teaching and Learning Through Research: CATLR Workshops

CPS Rubrics Repository

CPS Rubrics Module, Webinars, Best Practices Guide

#NUTEXPO19
THANK YOU FOR ATTENDING TEXPO 2019!

Questions?

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References

