Crafting a Common Lens: One Master’s Program’s Approach to Assessment Rubric Design

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INTRODUCTIONS—Who are we?

- Jennifer – Former Program Director for MA in Ed, Central Michigan University, Mt. Pleasant, MI
- Paula – Assessment Coordinator, Morehead State University, Morehead, KY
Who are You?
Today’s Session Outcomes

- Share our journey
- Provide you with the tools to craft your common lens
  - Ask the necessary questions
  - Create a framework for thinking about and planning assessment
  - Deepen your understanding of the process
  - Enable you to bring the conversation back to your colleagues
First, some background...

- MA in Ed degree
  - Professional advancement degree
  - Offered exclusively off campus
  - Adjunct faculty
  - 800–1000 students average yearly enrollment
The Challenge– Assessing Student Learning at the Program Level

- How do we develop a sustainable system that yields meaningful data?

- Guiding Questions:
  - What should students be learning?
  - What are students actually learning?
  - What are the contributions of the institution and its programs?
  - How can student learning be improved?

(Hutchings and Marchese, 1990)
Answer Questions 1 – 7
Essential Questions Guiding Our Process

- What is our program’s mission?
- What are our assumptions about learning?
- What should our graduates KNOW and be able to DO upon program completion?
- How often and where in the program do they have opportunities to practice these skills?
Learning Principles

- **Practice**
  - Required for learning

- **Transfer**
  - Cannot be assumed
  - Teach for transfer

- **Scaffolding**
  - Enhances learning
  - Progressive

- **Feedback**
  - Necessary for learning
  - Stages of achievement
The Process

Identify:
- Concepts & Skills needed

Curriculum Review:
- Where are skills practiced?

Course-embedded assignments

Capstone Project Success

Where are concepts acquired?
Essential Questions Guiding Measure Development

- What will we use as evidence of student learning?
- Is that evidence relevant, reliable, valid?
- How will the data we collect be used to improve teaching and learning?
Developing Assignments and Rubrics

Engage Faculty
- Identify Salient Dimensions
- Establish Content Validity

Faculty Feedback
- Refine Assignments
- Develop Rubrics
Validate Content: 8 Assignments

- Annotated Bibliography
- Synthesis Paper
- Lesson Plan
- Curriculum Unit
- Project Proposal
- Study Proposal
- Capstone Project
- Capstone Study
Content Validation Summary

- Faculty cooperation (43)
- Content identified
- Surveys developed on S Monkey
- Analysis – 85% need & importance
- 8 Rubrics Validated
## Synthesis Paper
### Validation of Characteristics

**Content Clarity:** Clearly states a thesis statement at the beginning

<table>
<thead>
<tr>
<th>Is Needed</th>
<th>Unimportant</th>
<th>Marginally Important</th>
<th>Important</th>
<th>Very Important</th>
<th>Rating Avg</th>
<th>Count</th>
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<td>2</td>
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Total: 0.00 0.00 3.33 3.88 3.80 20
Developing the Rubrics

1. Categorize dimensions
2. Develop an unbiased scale
3. Develop Rubric
## Synthesis Paper Rubric

(EDU 613 – Current Issues)

Dr. Paula D. Serra and Dr. Jennifer Cochran

<table>
<thead>
<tr>
<th>Dimensions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Clarity</strong></td>
<td><strong>Summary</strong></td>
</tr>
<tr>
<td>Clearly stated a thesis statement at the beginning</td>
<td></td>
</tr>
<tr>
<td>Clearly identified sources</td>
<td></td>
</tr>
<tr>
<td>Source being discussed at any point is clear</td>
<td></td>
</tr>
<tr>
<td><strong>Logically Organized</strong></td>
<td><strong>Materials were sufficient for a complete topic discussion</strong></td>
</tr>
<tr>
<td>All the evidence impartially, fairly presented</td>
<td></td>
</tr>
<tr>
<td>Transitions tied thesis and topics enhancing information flow</td>
<td></td>
</tr>
<tr>
<td><strong>Paragraphs well-developed</strong></td>
<td><strong>Synthesizing topic sentences</strong></td>
</tr>
<tr>
<td>Encapsulates significant details</td>
<td></td>
</tr>
<tr>
<td>Well-delimited supportive evidence</td>
<td></td>
</tr>
<tr>
<td>Statistics relevant, accurate and up-to-date</td>
<td></td>
</tr>
<tr>
<td>Paraphrasing well structured using own voice</td>
<td></td>
</tr>
<tr>
<td>Quotations judiciously included</td>
<td></td>
</tr>
<tr>
<td>Smooth transition of ideas</td>
<td></td>
</tr>
<tr>
<td>Concluding statements based on evidence revealed</td>
<td></td>
</tr>
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## Adequacy Scale

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>Lacking</strong></td>
</tr>
<tr>
<td></td>
<td>(missing, absent)</td>
</tr>
<tr>
<td>2</td>
<td><strong>Insufficient</strong></td>
</tr>
<tr>
<td></td>
<td>(incomplete, <strong>not enough</strong>, inadequate, underprovided)</td>
</tr>
<tr>
<td>3</td>
<td><strong>Adequate</strong></td>
</tr>
<tr>
<td></td>
<td>(<strong>enough</strong>, acceptable, passable)</td>
</tr>
<tr>
<td>4</td>
<td><strong>Ample</strong></td>
</tr>
<tr>
<td></td>
<td>(abundant, <strong>more than enough</strong>, sufficient)</td>
</tr>
<tr>
<td>5</td>
<td><strong>Substantial</strong></td>
</tr>
<tr>
<td></td>
<td>(considerable, extensive, great, huge)</td>
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</table>
Embedded Practice for Transfer

**Annotated Bib**
- Identifies the theses

**Synthesis Paper**
- Clearly states a thesis statement

**Project Proposal & Capstone**
- Clearly articulates a statement of the problem
Embedded Scaffolded Learning

Annotated Bib
- Delineates the main ideas

Synthesis Paper
- Synthesizes topic sentences

Project Proposal & Capstone
- Organizes the review around a logical progression of key ideas
Faculty Rubric Training...

- Issue: develop a common lens for looking at learning
- Issue: develop a common language for talking about learning & assessment
  - how to demonstrate it—
  - what constitutes “substantial” vs “ample” vs “adequate”
Training Process

- Assess 3 assignments before session
- Submit & Discuss #1
- Revise #2 & submit
- Discuss #2
- Revise #3 & submit
- Measure intraclass correlations
Inter-rater Reliability Results

- Average Intraclass Correlations
  - 2 – 4 raters

- ICC rule of thumb
  - 0.40 to 0.59 moderate I–RR
  - 0.60 to 0.79 substantial
  - 0.80 outstanding

(Landis & Koch, 1977)
LESSON PLAN: AVERAGE MEASURE INTRACLASS CORRELATIONS

<table>
<thead>
<tr>
<th>#1</th>
<th>e-Tailing</th>
<th>0.69</th>
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<tbody>
<tr>
<td>#2</td>
<td>Colonial Dance</td>
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<tr>
<td>#3</td>
<td>Fairy Garden</td>
<td>0.88</td>
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</table>
Measuring Scale Quality

- **Reliability**
  - Spearman–Brown prophecy coefficient
  - Split-half measure to estimate full test reliability

- **Pilot data from one class each**
  - Lesson Plan
  - Capstone Project
  - Capstone Study (Thesis)

- **Goal** $\geq .85$
Construct Validity

- Cronbach’s alpha – internal consistency
- How well items measure a single one dimensional underlying concept

Alpha: "$ \geq .70"$ considered "acceptable"

Goal  $\geq .85$
# Quality of the Adequacy Scale

<table>
<thead>
<tr>
<th>Rubric</th>
<th>Reliability</th>
<th>Construct Validity</th>
<th>N Items</th>
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<tbody>
<tr>
<td></td>
<td>Spearman-Brown coefficient</td>
<td>Cronbach's Alpha</td>
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<tr>
<td>Lesson Plan</td>
<td>0.87</td>
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<tr>
<td>Capstone Project</td>
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<td>0.98</td>
<td>49</td>
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<tr>
<td>Capstone Study</td>
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<td>57</td>
</tr>
<tr>
<td>MSU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone Project</td>
<td>0.99</td>
<td>0.99</td>
<td>108</td>
</tr>
</tbody>
</table>
Closing the Loop
Implications and Benefits

- Develops a community of practitioners who have crafted a common lens
  - Engages stakeholders
  - Promotes dialogue about . . .
    - Learning
    - How to assess it at the graduate level

- Data will
  - Offer an indication of learning
  - Inform program improvement
Thank you for your interest and your participation!

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