Assessing Student Learning Outcomes with Theses and Dissertations – Going Beyond Completion Rates

Agenda

• Today’s outcome
• Program assessment cycle overview
• Presentation of two cases
• Assessment momentum quiz
• 5-step decision flow
• Group work on rubric
• Logistics & resources
• Workshop evaluation

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Faculty specialists: Monica & Yao

Mission: Improve student learning through program assessment

We encourage follow-up consultation appointments

Intended Outcome

• Make an informed decision on how to use a rubric to evaluate students’ culminating work.
Assessment Cycle

Learning Outcomes

Improvement Plan

Learning Opportunities

Assessment Results

Collection & Analysis of Evidence

Two Showcase Demos

- Information & Computer Science Ph.D.
- Educational Psychology M.Ed. and Ph.D.
Showcase 1: ICS Ph.D.

- Evidence
  - ICS 690 presentation
  - Portfolio evaluation
  - Proposal defense
  - Final defense
  - Dissertation

- Evaluate Evidence
  - Assessment Grid with 3 criteria → 3 SLOs
  - 4 levels of performance + N/A
    - Unacceptable
    - Marginal
    - Acceptable
    - Exceptional

ICS Ph.D. Assessment Grid

<table>
<thead>
<tr>
<th>SLO</th>
<th>Unacceptable</th>
<th>Marginal</th>
<th>Acceptable</th>
<th>Exceptional</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a research portfolio...</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Become an expert in the area of specialization... and formulate a research plan...</td>
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<tr>
<td>Execute a research plan and demonstrate original contributions to the field...culminating in a Ph.D. dissertation and oral defense.</td>
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</tr>
</tbody>
</table>

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The Process

1. The Assessment Coordinator (AC) developed the grid.
2. The Grid was approved at the Graduate Committee.
3. AC distributes and collects the grids and analyzes the data.
4. AC reports the results at the general faculty meeting.
5. Faculty are encouraged to join the graduate committee for further discussion.

Showcase 2: EDEP M.Ed. & Ph.D.

- Evidence
  - M.Ed. scholarly paper
  - M.Ed. thesis
  - Dissertation proposal
  - Dissertation defense
  - Dissertation
- Evaluation rubrics
  1. Proposal: Lit review
  2. Proposal: Methods
  3. Dissertation: Lit review
  4. Dissertation: Methods
  5. Research presentation
- 3 levels
  - Unacceptable
  - Satisfactory
  - Exceeds Expectations
Proposal Literature Review Rubric

<table>
<thead>
<tr>
<th>Rubric Component</th>
<th>Standards</th>
<th>Unacceptable (0)</th>
<th>Satisfactory (1)</th>
<th>Exceeds Expectations (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Statement of Research Question</td>
<td>EDEP graduate students are knowledgeable about inquiry methods</td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>2. Context</td>
<td></td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>3. Organization</td>
<td></td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>4. Style and writing conventions</td>
<td></td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
</tbody>
</table>

Sample Literature Review Rubric Criterion - Context

<table>
<thead>
<tr>
<th>Unacceptable</th>
<th>Satisfactory</th>
<th>Exceeds Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The lit. review does not adequately contextualize the research question, and/or there is no indication of what literature was included or excluded.</td>
<td>• The lit. review adequately contextualizes the research question, indicating what literature was included and excluded.</td>
<td>• The lit. review adequately contextualizes the research question and includes a critique and synthesis of the literature.</td>
</tr>
</tbody>
</table>
Dissertation Literature Review Rubric

<table>
<thead>
<tr>
<th>Rubric Component</th>
<th>Standards</th>
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<td></td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>4. Style and writing conventions</td>
<td></td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>5. Revision</td>
<td></td>
<td>xxx</td>
<td>xxx</td>
<td>xxx</td>
</tr>
</tbody>
</table>

The Process

- Internal & external motivation
- 2007 faculty meeting
  - Looked at standards from professional organizations
  - Looked at exemplary work
  - Collectively articulated expectations
  - Gathered students’ feedback
- AC collects, analyzes, & summarizes the results
- All faculty interpret the results & make improvement plans
Lessons Learned

- Target outcomes
- Evaluate with rubrics
- Faculty interpret the results
- Act on the results to improve
- Benefit student learning

What can your program do?

Gauge the assessment momentum first.

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Assessment Momentum Quiz:

1. For most faculty in your program, how important is it to improve student learning?

   (1) Somewhat important
   (2) Important
   (3) Very important

Assessment Momentum Quiz:

2. What is the level of support of assessment activities in your program in terms of resources and/or personnel?

   (1) Low
   (2) Medium
   (3) High
Assessment Momentum Quiz:

3. In general, how likely is it for the faculty to reach consensus in your program?

(1) Not likely
(2) Somewhat likely
(3) Very likely

Five-Step Decision Flow
5-Step Decision Flow

1. Choose outcomes to assess
2. Choose evidence to assess
3. Choose holistic or analytic rubric
4. Decide on criteria
5. Decide on performance characteristics

Step 1: Choose outcomes to assess
The right outcomes to assess

- Knowledge
- Ability to design and conduct research
- Critical thinking/analytical thinking
- Ability to apply the right methods
- Oral performance
- Writing

Example Outcomes: Communication (MA)

1. Demonstrate subject mastery....
2. Identify research questions on.... and perform a critical, written analysis of the relevant literature.
5. Demonstrate mastery of the methodology and techniques...
6. Present and discuss, in written form, the findings...
6. Present, discuss, and defend the findings.... in an oral defense

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Outcomes difficult to assess with dissertations/theses

- Dispositional/Attitudinal (e.g., professionalism, ethical conduct)
- Teaching grad. & undergrad.
- Applying to the real world

How would you choose outcomes to assess?
High Assessment Momentum

- Choose 1-3 outcomes based on concerns from faculty’s observations and discussions of students’ performance.
- All outcomes assessed in depth.

Low Assessment Momentum

- 1-3 outcomes that all faculty think are important.
- All outcomes assessed simultaneously without going into detail.
Step 2: Choosing evidence – What and how?

Ph.D. Program Evidence Pyramid

- Dissertation/Thesis defense
- Dissertation/Thesis
- Proposal defense
- Proposal
- Comprehensive Exam
- Qualifying Exam

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### Ph.D. Program Evidence Pyramid

- Dissertation/Thesis defense
- Dissertation/Thesis
- Proposal defense
- Proposal
- Comprehensive Exam
- Qualifying Exam

New Program

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Step 3: Choose holistic or analytic rubric

Holistic rubric

“Provides a single score based on an overall impression of a student’s performance on a task”


<table>
<thead>
<tr>
<th>Evidence</th>
<th>Outstanding</th>
<th>Very Good</th>
<th>Acceptable</th>
<th>Needs Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissertation</td>
<td></td>
<td></td>
<td></td>
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</table>
# Assessment Office
Hawai'i Hall 107 2500 Campus Road, Honolulu, HI 96822
(808) 956-4283
(808) 956-6669
manoa.hawaii.edu/assessment

## Level Criteria

<table>
<thead>
<tr>
<th>Level</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>High originality, high-quality writing, and compelling consequences to the field. Displays a richness of thought and insights. Makes an important breakthrough.</td>
</tr>
<tr>
<td>Very good</td>
<td>Solid and well written. Displays mastery of the field, addresses the next question or problem in a research program, and is executed competently and confidently. One or more components may not be as strong as the others. Expands rather than alters the thinking of a field.</td>
</tr>
<tr>
<td>Acceptable</td>
<td>Is often a highly derivative, small extension of someone else's work. The writing is good enough but a chore to read. Adds little to the field and lacks consequences.</td>
</tr>
<tr>
<td>Needs Work</td>
<td>Poorly written and full of errors and mistakes. Do not have a good or clearly defined question or problem. Poor grasp of the field. Does not use proper methods. Does not yield new or relevant results.</td>
</tr>
</tbody>
</table>

Language adapted from Lovitts (2005, pp. 19 – 21)
Analytic Rubric

“Specifies the criteria to be assessed at each performance level and provides a separate score for each criterion” (http://manoa.hawaii.edu/assessment/howto/rubrics.htm).

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Outstanding</th>
<th>Very Good</th>
<th>Good</th>
<th>Needs Work</th>
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<tbody>
<tr>
<td>Literature Review</td>
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<tr>
<td>Methods</td>
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<tr>
<td>Analysis</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Original contribution</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Expected Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Review</td>
<td>Comprehensive &amp; up to date. Contextualizes the problem. Selective, synthetic, analytical, and thematic.</td>
</tr>
<tr>
<td>Methods</td>
<td>Applies appropriate and rigorous methods. Aligns with the question and theory. Points out the advantages and disadvantages of each method used.</td>
</tr>
<tr>
<td>Analysis</td>
<td>Appropriate and aligns with question &amp; hypotheses. Shows sophistication. Is iterative.</td>
</tr>
<tr>
<td>Original contribution</td>
<td>Expands or alters thinking of the field.</td>
</tr>
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</table>

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Fully developed analytic rubric

- Handout Example:
Dissertation Evaluation Rubric in Spanish and Portuguese Department, Kansas University.

- Focus groups with 272 faculty, 74 departments, 10 disciplines, 9 research universities
- Experience = 3,470 dissertations, 9,890 committees

Step 4: Deciding criteria – 0, 2, or 5?

Step 5: Performance characteristics – To write or not to write

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Rubric development best practices

- Articulate expectations collaboratively
- Examine exemplary work
- Adapt and adopt
- Involve students
- Know that it takes time – trial and error

Activity

Step 1: Given your program’s assessment momentum, use the decision flowchart to decide which type of rubric is feasible and beneficial to your program (5 min).
Step 2: Share your decision with one or two people and gather feedback. (10 min)
Step 3: Develop performance characteristics for one task/one criterion/one level. (10 min)
Logistics

- Distribute the rubric
- Collect rubric scores: paper vs. online
- Enter data and summer:
  - Assessment Coordinator
  - Assessment Office
- Ensure confidentiality

Assessment Office Workshops & Links

- Planning
  - From Conversations to Systematic Program Assessment
  - Increasing Faculty Involvement in Program Assessment
  - Best Practices for Planning Program-Level Assessment of Student Learning
- Rubric
  - How to Use a Rubric for Program Assessment
  - Techniques for Using Rubrics in Program Assessment
- Data Analysis
  - Data, Now What
  - Basic Techniques in Using Excel to Analyze Assessment Data
  - Using Excel's Pivot Table to Analyze Learning-Assessment Data
Graduate Programs at UHM

- Education Psychology MEd and Ph.D. (Proposal, dissertation, oral defense)
- Electrical Engineering, Ph.D. (Qualifying & comprehensive exam, dissertation defense)
- Educational Foundation, MEd (Thesis)
- Computer Science, Ph.D. (Proposal, dissertation, oral defense)
- Epidemiology, Ph.D. (Qualifying exam)

Please complete a workshop evaluation form

Thank you!

Monica Stitt-Bergh & Yao Hill
University of Hawai‘i at Mānoa

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