Assessing Learning in Graduate Programs

Assessment Office’s Mission

Improve student learning through academic program assessment

Website: manoa.hawaii.edu/assessment

We have two faculty specialists in the office: Monica Stitt-Bergh and me. We conduct workshops, provide individual consultations, and facilitate assessment work sessions. Check out our website for resources and past workshop materials.

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Learning Outcomes

1. Identify characteristics of good assessment
2. Develop strategies for carrying out assessment in a graduate program

The reason that I developed this workshop is because of the misunderstandings that we saw in the annual assessment reports. This workshop is a direct result of our assessment of the grad program assessment status. That being said, this workshop is just an introduction to graduate program assessment of student learning. I hope this is the start of conversation and collaboration between you, your program, and the assessment office. I expect follow-up calls and requests for meetings from you to move the graduate program assessment forward in your department or unit.
Slide 4

Agenda

1. “What is grad program assessment” activity
2. Grad program assessment examples
3. Your turn to develop strategies
4. Strategy share
5. Tools and resources
6. Evaluation of the workshop

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ACTIVITY 1: Identify program assessment of learning in graduate programs

In this activity, you will read the excerpts of the annual program assessment report in your handout. Please identify the excerpts that reflect program level assessment of learning in graduate programs.

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Characteristics of Program Assessment

The focus of program assessment of learning at the graduate level should be about student achievement of student learning outcomes. The learning outcomes are the knowledge, skills/abilities, and/or disposition students should develop upon program completion. Even though student satisfaction and student retention and graduation rates are important, they do not belong in the category of learning assessment. Tracking the completions of the scholarly paper/thesis/dissertation cannot speak to the quality of student performance in content knowledge and discipline-specific technical skills.
The learning evidence is often the culminating student learning products such as a thesis, scholar paper, and/or dissertation. On your handout, there is a sheet titled “Outcome Categories and Possible Indicators.” You can see what kinds of evidence are appropriate for each UHM advanced degree institutional learning outcome.
In program assessment of student learning outcomes, we present the results based on the level of outcome achievement among students. It is often presented in the form of number and percentage of the students meeting the minimum success standard or acceptance level set by individual programs. The results from this program showed that students achieved best on the research methods outcome and least on the communication outcome. The results seem to suggest that more actions are need to improve students’ ability in written and oral communication.

<table>
<thead>
<tr>
<th>SLO</th>
<th>% of students meeting expectations (Total Number = 80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO 2. Research Methods</td>
<td>100%</td>
</tr>
<tr>
<td>SLO 1. Lit Review</td>
<td>75%</td>
</tr>
<tr>
<td>SLO 3. Communication</td>
<td>50%</td>
</tr>
</tbody>
</table>
Use of assessment results is the ultimate function of assessment. The power of the assessment is to provide student learning achievement information at the program level to guide programmatic improvement. The previous slide shows that only 50% of the students were able to communicate effectively in oral and written form. This points to the need that faculty provide more learning opportunities in their curriculum by assigning more speaking and writing tasks. Or advisors can recommend services from the writing center and writing tutors on campus. Maybe there can be a professional development meeting in which faculty discuss and exchange pedagogical strategies on how to teach oral presentations or write a literature review. Or perhaps the program may provide technology in the form of a video recorder to tape students’ oral presentation and can be used for self-reflection and self-assessment. The results at the program assessment level should not be misused or abused to punish individual students or individual faculty.
Characteristics of Program Assessment

<table>
<thead>
<tr>
<th>Target</th>
<th>Student learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence</td>
<td>(Culminating) learning products</td>
</tr>
<tr>
<td>Analysis &amp; Results</td>
<td>Aggregation of SLO achievement</td>
</tr>
<tr>
<td>Use</td>
<td>Programmatic Actions</td>
</tr>
</tbody>
</table>

Slide 10

To summarize...

Slide 11

ACTIVITY 1: RE-identify program assessment of learning in graduate programs

Now looking at the excerpts of annual program assessment report again on your handout, see whether you want to change your choices about which ones reflect program level learning assessment in graduate programs.

You may use these materials only for nonprofit educational purposes. Please give credit/cite appropriately.
### Slide 12

#### My Choice

<table>
<thead>
<tr>
<th>Excerpts</th>
<th>Program Assessment of Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>3</td>
<td>NO</td>
</tr>
<tr>
<td>4</td>
<td>YES 😊</td>
</tr>
<tr>
<td>5</td>
<td>NO</td>
</tr>
</tbody>
</table>

### Slide 13

#### My Choice

<table>
<thead>
<tr>
<th>Excerpts</th>
<th>Program Assessment of Learning</th>
</tr>
</thead>
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<tr>
<td>1</td>
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<td>NO</td>
</tr>
<tr>
<td>4</td>
<td>YES 😊</td>
</tr>
<tr>
<td>5</td>
<td>NO</td>
</tr>
</tbody>
</table>

Completion ≠ SLO achievement

eCAFÉ ≠ SLO assessment

Individual student eval. ≠ program assessment

Persistence, Graduation, Satisfaction ≠ SLO assessment
In this part of the workshop, we are going to look at how three programs did learning assessment. I labeled them as the bronze, silver, and gold assessment examples on your handout. The three examples represent different levels of the program assessment in the graduate programs with gold representing the highest level. However, programs may find it more manageable to start from the bronze or silver phase, which would still be award-winning if the program has never engaged in program assessment before.
Let’s look at the handout with three examples. First, let’s look at the Bronze example. The first column represents the steps in the assessment cycle. Let’s use a few minutes to read the example. [After a couple of minutes] What are the features in this example that make it a bronze level? Anyone?

Bronze Example

- Single faculty decides on outcomes to assess
- Single faculty collects, evaluates, analyzes, interprets, and reports data
- No or minimum use
- Examples:
  - One person tracks publication
  - One person summarizes alumni survey
  - One person assesses students in one course

[Summarize participants’ input]
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Bronze Example

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimum resources to get assessment started</td>
<td>• Hard to sustain—only one person</td>
</tr>
<tr>
<td></td>
<td>• Assessment information is isolated</td>
</tr>
<tr>
<td></td>
<td>• Minimally meaningful &amp; useful</td>
</tr>
</tbody>
</table>

Point out the advantages and challenges in doing assessment this way...

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Assessment Cycle

Learning Outcomes

Learning Opportunities

Collect & Evaluate Evidence

Interpret Results

Use Results

Now let’s spend a few minutes to read how the silver example went through the assessment cycle. [After a few minutes] How is this example different from the Bronze example? What make it a silver level?
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Silver Example

• Mainly one person set up the assessment structure
  – Select outcomes to assess
  – Develop tools (e.g., survey, rubric)
  – Analyze data
• Multiple faculty participate in data collection, data use discussion
• Some use of the results

[Summarize participants’ input]

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Silver Example

**Advantages**

• Some faculty involvement
• Relatively few resources
• Assessment can be useful and meaningful

**Challenges**

• Hard to sustain → one person does most of the work
• Need faculty engagement and contribution

[Point out the advantages and challenges in doing assessment this way…]
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Assessment Cycle

Now let’s spend a few minutes to read how the Gold example went through the assessment cycle. [After a few minutes] What processes or features of program assessment make it a gold level?

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Gold Example

- Faculty collaborate in every step of the assessment process
- Multiple pieces of evidence are used to evaluate one outcome
- Meaningful and substantial use of the results

[Summarize participants’ input]
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Gold Example

**Advantages**
- All faculty are involved
- Assessment is sustainable, cyclical, and meaningful

**Challenges**
- Takes time to build a commonly agreed-upon system
- Takes time to engage all faculty
- Extensive human and technology resources

[Point out the advantages and challenges doing assessment this way…]

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It’s Your Turn!

First, work on your own to think about strategies for an assessment project in your program. Use the handout on strategies as your guide. This is a front-and-back two-page handout. After
you are done, share with the person next to you to gather feedback and provide suggestions for your partner.

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RESOURCES

We have many resources to help you with learning assessment in a graduate program. You can view the resource list in the last page of your handout.

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Tools and Resources

• Assessing Student Outcomes with Theses and Dissertations – Going Beyond Student Complete Rates
  — Rubric samples to evaluate dissertations
• Using Rubrics in Program Assessment
  — Adapt and calibrate rubrics
• What’s Good Enough? Setting Benchmarks/Standards
• Making Sense of Assessment Data
  — Data summarization and presentation
• Using Program Assessment Results to Improve Student Learning
  — Strategies to use assessment results

I highly recommend that you check out these resources:

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Graduate Programs at UHM with Exemplary Assessment Practices

- Educational Psychology, MEd and PhD (Proposal, dissertation, oral defense)
- Electrical Engineering, PhD (Qualifying & comprehensive exam, dissertation defense)
- Educational Foundations, MEd (Thesis)
- Epidemiology, PhD (Qualifying exam)

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SUPPORT STUDENT SUCCESS WITH LEARNING ASSESSMENT
Assessing Learning in Graduate Programs
Activity 1 Worksheet

The following excerpts are adapted from the Annual Assessment Reports that every degree program submits to the Assessment Office in October.

Which excerpt(s) represent program assessment of student learning?

☐ Excerpt 1. To evaluate the program SLOs, we tracked the number of students completed their scholarly paper or scholarly projects. All graduates successfully submitted a scholarly research paper or a write-up of their application projects. The program is successful in achieving this learning outcome.

☐ Excerpt 2. Every student submits an end-of-course faculty evaluation (eCAFÉ) each term. These are tabulated and results are sent to each individual faculty and Chair. The Chair examines the results on student satisfaction and determines what policies, if any, need to be addressed at the appropriate faculty meeting.

☐ Excerpt 3. Every year, all Ph.D. faculty meet and discuss the program that each Ph.D. student is making. They produce an evaluation report for each student, and each student is sent a letter summarizing their grades, performance in class, and performance on research activities.

☐ Excerpt 4. Faculty in each dissertation committee used dissertation and dissertation defense to assess program student learning outcomes using a rubric. 100% of the students met the performance expectations on all SLOs, with the exception of oral communication outcome. As a result, faculty intended to increase oral presentation tasks in graduate level courses.

☐ Excerpt 5. 100% of the students enrolled in the program persist in the program. About 80% of our Master level students are able to graduate in 2 and a half years. The exit interviews showed that students were very satisfied with the quality of the faculty and the program. No programmatic change will be made in the following academic year.
### Outcome Categories and Possible Indicators

*(Adapted from UHM Advanced Degree Institutional Learning Outcomes Draft)*

<table>
<thead>
<tr>
<th>Category</th>
<th>Possible Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Comprehensive knowledge</td>
<td>• comprehensive exam</td>
</tr>
<tr>
<td></td>
<td>• oral defense</td>
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<tr>
<td></td>
<td>• written review of the literature</td>
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<tr>
<td></td>
<td>• collection of performances</td>
</tr>
<tr>
<td>2. Understanding of research methodology and techniques</td>
<td>• course exam</td>
</tr>
<tr>
<td></td>
<td>• comprehensive exam</td>
</tr>
<tr>
<td></td>
<td>• research proposal</td>
</tr>
<tr>
<td></td>
<td>• written review of the literature</td>
</tr>
<tr>
<td></td>
<td>• thesis/dissertation, oral defense</td>
</tr>
<tr>
<td>3. Research methodology and techniques</td>
<td>• original research project</td>
</tr>
<tr>
<td></td>
<td>• written critiques of journal articles</td>
</tr>
<tr>
<td></td>
<td>• research or grant proposal</td>
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<tr>
<td>4. Critically analyze and synthesize information and data</td>
<td>• written review of the literature</td>
</tr>
<tr>
<td></td>
<td>• written analysis and discussion of data</td>
</tr>
<tr>
<td></td>
<td>• policy paper</td>
</tr>
<tr>
<td>5. Communicate orally, in writing, and through media</td>
<td>• written projects</td>
</tr>
<tr>
<td></td>
<td>• oral presentations</td>
</tr>
<tr>
<td></td>
<td>• online communications</td>
</tr>
<tr>
<td></td>
<td>• television and film productions</td>
</tr>
<tr>
<td></td>
<td>• photo, image, picture projects</td>
</tr>
<tr>
<td></td>
<td>• recitals and performances</td>
</tr>
<tr>
<td>6. Responsible, ethical, professional conduct of research</td>
<td>• observation of students’ adherence to timelines, ability to set appropriate priorities, ability to follow through on commitments</td>
</tr>
<tr>
<td></td>
<td>• written description of ethical considerations in student’s research, approval to conduct research</td>
</tr>
<tr>
<td></td>
<td>• critique of research designs’ adherence to ethical principles</td>
</tr>
<tr>
<td></td>
<td>• appropriate conclusions drawn from data; appropriate use of data and treatment of participants</td>
</tr>
<tr>
<td></td>
<td>• written policy of and application of the ethical responsibilities of authors, including issues concerning ghost authorship, collaborative research, and conflicts of interest</td>
</tr>
<tr>
<td>7. Interact professionally</td>
<td>• observation of student performance during conference/poster presentation Q&amp;A</td>
</tr>
<tr>
<td></td>
<td>• supervisor/director evaluation of professional performance</td>
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<tr>
<td></td>
<td>• evaluation of students’ cultural competence during professional interactions</td>
</tr>
<tr>
<td>8. Guide, mentor, collaborate</td>
<td>• written self-reflections</td>
</tr>
<tr>
<td></td>
<td>• evaluations from mentees and collaborators</td>
</tr>
<tr>
<td></td>
<td>• recitals and performances</td>
</tr>
</tbody>
</table>
### Graduate Program Learning Assessment in Action

<table>
<thead>
<tr>
<th>Assessment Cycle</th>
<th>Bronze</th>
<th>Silver</th>
<th>Gold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Outcome/Objective</td>
<td>Establish membership in their field and develop their presence in that discipline</td>
<td>1. Develop a research portfolio 2. Formulate a research plan 3. Execute a research plan</td>
<td>1. Oral communication skills 2. Literature Review Skills</td>
</tr>
</tbody>
</table>

| Type & Location of Evidence | Number of conference participations, abstract submission, presentation, and publication self-reported by students | Student performance in a research portfolio class; dissertation proposal defense, dissertation, and dissertation defense | The faculty in the program discussed the areas that students need most help with. They decided to evaluate and track the performance on oral presentation and literature review. Faculty decided to collect evidence from several courses using course embedded assessment and also use dissertation and dissertation defense to evaluate performance on these two outcomes. |

| Person(s) Evaluating the Evidence | The AC sent emails to the current Ph.D. students and to alumni and collected responses. | The instructor, who also serves as the AC, evaluated the students’ performance in the research portfolio class by himself; he asked the dissertation chair to complete the dissertation proposal and dissertation defense evaluation form together with other graduate program forms | Course instructors evaluated research papers and oral presentations aligned with the target SLOs using the commonly agreed upon rubric and the dissertation committee members collaboratively evaluated dissertation and oral defense using the rubric. |

| Tool to Evaluate the Evidence | Checklist used by one person | A simple rubric developed by one person | An elaborated rubric developed by all faculty in the program |

| Data Summary and Interpretation | The AC counted the number and percent of the students who submitted a proposal, presented at a conference, or published a paper. | The AC summarized and interpreted the results. | The AO summarizes the results and presents them at the faculty meeting. All faculty participate in the data interpretation. |

| Use of Results | There is no use of the results | The AC wants to improve the rubric so that it is more aligned with the types of the evidence that faculty evaluate. | Faculty used the results to add oral presentation requirements in several courses and provide students with the rubric that guide their preparation. |

AC = Assessment Coordinator
ICS Ph.D. Graduate Program Assessment

Student: __________________________  Date: __________________________

Event:
- [ ] ICS690 presentation
- [ ] Portfolio evaluation
- [ ] Proposal defense
- [ ] Final defense
- [ ] Dissertation

<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 that demonstrates the capacity to carry out original research in the field;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Become an expert in the area of specialization including mastery of the relevant research skills and methods, develop a research vision, and formulate a research plan that will lead to novel scientific contributions;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Execute a research plan and demonstrate original contributions to the field, as shown through findings and/or publications, culminating in a Ph.D. dissertation and oral defense.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Signature:
- [ ] Graduate Chair
- [ ] Committee Chair
- [ ] Other: __________________________
# Final Literature Review Assessment Rubric
(revised 05/02/09)

<table>
<thead>
<tr>
<th>Rubric Component</th>
<th>Standards</th>
<th>Unacceptable (0)</th>
<th>Satisfactory (1)</th>
<th>Exemplary (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Statement of research question</td>
<td>EDEP graduate students are knowledgeable about inquiry methods.</td>
<td>The statement of the research question is unclear. The question is not feasible or broad enough in scope for a master’s project/thesis or doctoral dissertation. The practical and/or scholarly significance for educational psychology is not discussed.</td>
<td>The research question is clearly stated. The question is feasible, but the scope may not be appropriate for a master’s project/thesis or doctoral dissertation. The practical and scholarly significance of the research for educational psychology is discussed.</td>
<td>The research question is clearly stated. The question is feasible and is broad enough in scope for a master’s project/thesis or doctoral dissertation. The practical and scholarly contributions of the research for educational psychology are critiqued.</td>
</tr>
<tr>
<td>2. Context</td>
<td>EDEP graduate students are knowledgeable about inquiry methods.</td>
<td>The literature review does not adequately contextualize the research question, and/or there is no indication of what literature was included and excluded.</td>
<td>The literature review adequately contextualizes the research question, indicating what literature was included and excluded.</td>
<td>The literature review adequately contextualizes the research question and includes a critique and synthesis of the literature.</td>
</tr>
<tr>
<td>3. Organization</td>
<td>EDEP graduate students are knowledgeable about inquiry methods.</td>
<td>The writing is not clear. There are many problems with the organization of the paper.</td>
<td>For the most part, the writing is clear and organized.</td>
<td>The writing is clear and well organized.</td>
</tr>
<tr>
<td>4. Style and writing conventions</td>
<td>EDEP graduate students are knowledgeable about inquiry methods.</td>
<td>There are many errors of APA style and other writing conventions.</td>
<td>There are some errors of APA style and other writing conventions.</td>
<td>There are relatively few errors of APA style and other writing conventions.</td>
</tr>
<tr>
<td>5. Revision</td>
<td>EDEP graduate students are knowledgeable about inquiry methods.</td>
<td>The advisor’s and/or Committee’s comments and suggestions are not addressed.</td>
<td>Some of the advisor’s and/or Committee’s comments and suggestions were addressed.</td>
<td>All of the advisor’s and/or Committee’s comments and suggestions were addressed.</td>
</tr>
</tbody>
</table>
Assessing Learning in Graduate Programs Workshop: Strategies for Assessment Project

1. Choose 1 or more of your program student learning outcomes (SLOs).
   Tip: choose an outcome(s) that faculty really care about right now
   Outcome(s) selected =

2. What type of direct evidence will answer the assessment question, is credible to faculty, and feasible to collect and evaluate? [select more than one if desired]
   □ Dissertation/Thesis/Scholarly Paper
   □ Dissertation defense
   □ Dissertation/Thesis/Research proposal
   □ Dissertation proposal defense
   □ Comprehensive Exam
   □ Qualifying exam
   □ Licensure exam
   □ Course assignment(s): ____________________________ (e.g., literature review, article critique paper)
   □ Observation: ____________________________ (e.g., student performance during conferment/poster presentation; professional interactions; recitals; dance performances)
   □ Portfolio/Collection of student work/performances
   □ Student evaluations of TAs
   □ Written self-reflections
   □ Other. Please name ____________________________

3. Collect data
   □ Using existing data: (e.g., UHM Dissertation and Thesis Database; recorded student performance)
   □ We will need to take steps to collect and store data:
   Briefly describe possible steps:
   __________________________________________________________
   __________________________________________________________

4. Who will evaluate the evidence? [Note: this may not apply to standardized exams which are typically evaluated by the organization that administers the exam]
5. How will the evidence be evaluated?

☐ Rubric  ☐ Exam scoring guide  ☐ Observation checklist  ☐ Other: ____________________________________________________________

6. How will the data be summarized?

*Example*

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<table>
<thead>
<tr>
<th></th>
<th>Approaching</th>
<th>Meeting</th>
<th>Exceeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO2. Research Methods</td>
<td>50%</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>SLO 1. Lit Review</td>
<td>25%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>SLO 3. Communication</td>
<td>25%</td>
<td>50%</td>
<td>25%</td>
</tr>
</tbody>
</table>

7. Plan for collaborative result interpretation and use. *(e.g., share and discuss at the department/curriculum committee meeting)*

______________________________________________________________________________

______________________________________________________________________________
Tools & Resources

Graduate Assessment
• Graduate Program Assessment: From Student- to Program-Level Assessment:

Planning
• Basic Steps of Program Assessment (web article): https://manoa.hawaii.edu/assessment/howto/plan.htm
• Best Practices for Planning Program-Level Assessment of Student Learning

Rubrics
• Assessing Student Outcomes with Theses and Dissertations – Going Beyond Student Complete Rates
  Notes: Has sample rubrics for graduate program assessment, specifically rubrics for evaluating dissertations.
• Using Rubrics in Program Assessment
  Notes: Resources to adapt and adopt rubrics. Scripts for facilitating rubric adaptation and calibration.
• How to Use a Rubric for Program Assessment:
• Techniques for Using Rubrics in Program Assessment:
• What’s Good Enough? Setting Standards
  Notes: different approach to set standards for acceptable and other levels of performance. The rubric-based approach would be particularly helpful for graduate programs.
• Using google form to collect rubric ratings (YouTube Video):
  https://www.youtube.com/watch?v=CYSrmz03oPU

Data Analysis & Presentation
• Basic Techniques in Using Excel to Analyze Assessment Data:
• Using Excel’s Pivot Table to Analyze Learning-Assessment Data:
• Making Sense of Assessment Data
  Notes: data summarization techniques for different purposes. Data presentation techniques.