A Short Guide to Assessing Student Learning in Your Program or Department

Agnes Jasinska, Ph.D.
Assessment Coordinator
Office of Institutional Research & Planning
Contact: ajj006@bucknell.edu
My role = to support all faculty and staff in their assessment activities

• Consultations
• Workshops
• Annual assessment reports
• Assessment grant proposals
• Assessment resources (Moodle site)
• Assessment Lunches

Think of it as the beginning of a conversation…
Why assess student learning?

• Evidence that our students are learning and developing in and out of the classroom, consistent with Bucknell's mission and educational goals

• A mechanism for continued improvement of all facets of Bucknell education

Useful and meaningful + Sustainable
Assessment plan

- **What** to assess?
- **When and where** to assess it?
- **How** to assess it?
- **How to interpret and use the results?**
What to assess?
What to assess?

• Consider assessing 1-3 departmental student learning outcomes (SLOs) per academic year

• Focus on learning outcomes that are the current priority for the department, and that you & your colleagues want to examine more systematically (useful and meaningful)

• Set up a timeline to assess all departmental learning outcomes

• May be worthwhile to review the departmental learning outcomes and update/revise them as needed (including how they map onto Bucknell’s educational goals)
When and where to assess it?
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• Departmental curriculum map is your guide: Which courses are most relevant to the given learning outcome?

<table>
<thead>
<tr>
<th></th>
<th>Learning Outcome 1</th>
<th>Learning Outcome 2</th>
<th>Learning Outcome 3</th>
<th>Learning Outcome 4</th>
<th>Learning Outcome 5</th>
<th>Learning Outcome 6</th>
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</thead>
<tbody>
<tr>
<td>Course 1</td>
<td>X</td>
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<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Course 2</td>
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<td>X</td>
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<tr>
<td>Course 3</td>
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<td>Course 4</td>
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When and where to assess it?

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<th>Learning Outcome 5</th>
<th>Learning Outcome 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course 1</td>
<td>X</td>
<td></td>
<td>Introduced</td>
<td></td>
<td></td>
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<tr>
<td>Course 2</td>
<td>X</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Course 3</td>
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<tr>
<td>Course 4</td>
<td></td>
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<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

…
When and where to assess it?

• Assess student learning in both majors and non-majors

• Particularly important for courses that satisfy CCC requirements

• Highlights the broader role of the department in serving all Bucknell students, instead of serving exclusively the majors

• BUT you can keep track of the students’ majors, and look at the assessment results separately for majors vs. non-majors to answer additional questions
How to assess it?
How to assess it?

• Typically, assessment is embedded in course assignments (→ sustainable)

• Overlaps with grading & feedback, except focused on a specific learning outcome

• Direct + indirect measures of student learning = full picture

• Faculty are the experts and decide what measures work best
Direct vs. indirect measures of student learning

A direct measure of student learning clearly demonstrates that a student has acquired specific knowledge, skill, or value (and can now show it in their work, performance, or behavior).

- A student solves a calculus problem on an exam
- A student includes ethical analysis in their essay
- A student conducts a research project and presents a poster on it
Direct vs. indirect measures of student learning

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An **indirect measure of student learning** only indirectly suggests that learning of specific knowledge, skill, or value took place. Instead, it measures a perception of learning, or the measure is broad and multi-faceted.

- A student rates their own calculus proficiency on a survey question
- A student reflects on what they most enjoyed in a course, or what they found most challenging, and why
- A student’s grade in a course that included a module on research and a research assignment (in addition to other modules)
Benefits of using an assessment rubric

Rubrics

• Make assessment easier and faster (after initial work of developing or adapting a rubric)

• Make assessment more accurate, unbiased, and consistent across reviewers and across courses

• Promote faculty discussion, collaboration, and adoption of shared expectations & practices
A holistic rubric gives an overall assessment of the task. It lists different performance levels (from poor to excellent) for the task. It may also include descriptions of what each level looks like.

<table>
<thead>
<tr>
<th>Task:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
</tr>
<tr>
<td>Below</td>
</tr>
<tr>
<td>expectations</td>
</tr>
<tr>
<td>Level 2</td>
</tr>
<tr>
<td>Met</td>
</tr>
<tr>
<td>expectations</td>
</tr>
<tr>
<td>Level 3</td>
</tr>
<tr>
<td>Exceeded</td>
</tr>
<tr>
<td>expectations</td>
</tr>
</tbody>
</table>

Description of Level 2
<table>
<thead>
<tr>
<th>Score</th>
<th>Holistic Description</th>
</tr>
</thead>
</table>
| 4     | The author depicts the piece’s purpose and/or audience with specificity/complexity.  
  • In detail, the author discusses an intended outcome(s) for the piece and/or assumptions he/she has made about the audience.  
  • Referring to specific moments in the piece as evidence, the author analyzes how the piece furthers a specific purpose and/or addresses an identifiable audience. The author’s analysis of his/her own writing demonstrates rhetorical and metacognitive awareness. |
| 3     | The author depicts the piece’s purpose and/or audience with some degree of specificity/complexity.  
  • In some detail, the author discusses an intended outcome(s) for the piece and/or assumptions he/she has made about the audience.  
  • Referring more generally to the piece as evidence, the author analyzes how the piece furthers a specific purpose and/or addresses an identifiable audience. References to the selected piece may be somewhat awkward and mechanical, but they do demonstrate analysis. |
| 2     | The author depicts the piece’s purpose and/or audience in a fairly superficial and under-developed manner.  
  • In a generic manner, the author states an intended outcome(s) for the piece and/or an assumption(s) he/she has made about the audience.  
  • The author attempts to make some connection(s) between the selected piece and the concept of purpose or audience. |
| 1     | The author depicts the piece’s purpose and/or audience in a superficial manner or not at all.  
  • The author may discuss his/her writing process or his/her reasons for selecting the piece, but he/she may not state intended outcomes for the piece or assumptions he/she has made about the audience.   -OR-  
  • The author fails to connect the selected piece with the concept of purpose or audience.   -OR-  
  • The author’s response is off-topic and does not respond to the prompt. |
### An analytic rubric

#### Task description

**Dimension 1**
- Level 1: Description of level 1 for dimension 1
- Level 2: Description of level 2 for dimension 1
- Level 3: Description of level 3 for dimension 1

**Dimension 2**
- Level 1: Description of level 1 for dimension 2
- Level 2: Description of level 2 for dimension 2
- Etc.

**Dimension 3**
- Etc.

#### Levels of performance (3-5)
<table>
<thead>
<tr>
<th>Ethical Self-Awareness</th>
<th>Ethical Reasoning (VALUE rubric, AAC&amp;U)</th>
<th>Capstone</th>
<th>Milestones</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student discusses in detail/ analyzes both core beliefs and the origins of the core beliefs and discussion has greater depth and clarity.</td>
<td>Ethical Self-Awareness</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student states both core beliefs and the origins of the core beliefs.</td>
<td>Ethical Self-Awareness</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student states either their core beliefs or articulates the origins of the core beliefs but not both.</td>
<td>Ethical Self-Awareness</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Understanding Different Ethical Perspectives/Concepts</td>
<td>Understanding Different Ethical Perspectives/Concepts</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student names the theory or theories, can present the gist of said theory or theories, and accurately explains the details of the theory or theories used.</td>
<td>Understanding Different Ethical Perspectives/Concepts</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student can name the major theory or theories she/he uses, can present the gist of said theory or theories, and attempts to explain the details of the theory or theories used, but has some inaccuracies.</td>
<td>Understanding Different Ethical Perspectives/Concepts</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Student can recognize basic and obvious ethical issues but fails to grasp complexity or interrelationships.</td>
<td>Understanding Different Ethical Perspectives/Concepts</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Ethical Issue Recognition</td>
<td>Ethical Issue Recognition</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student can recognize ethical issues when presented in a complex, multilayered (gray) context AND can recognize cross-relationships among the issues.</td>
<td>Ethical Issue Recognition</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student can recognize ethical issues when issues are presented in a complex, multilayered (gray) context OR can grasp cross-relationships among the issues.</td>
<td>Ethical Issue Recognition</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Student can recognize basic and obvious ethical issues and grasp (incompletely) the complexities or interrelationships among the issues.</td>
<td>Ethical Issue Recognition</td>
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2 more dimensions [did not fit on screen]
How to interpret and use the results?
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- **Student-level criterion:**

- **Group-level threshold:**

  - Example: 77% of the students met or exceeded expectations on that measure.
How to interpret and use the results?

- **Student-level criterion**: Based on the measure used, did the *individual student* attain a given learning outcome or not?
  - Example: At least 75% (3 out of 4 questions) on questions embedded in an exam; “met or exceeded expectations” on a rubric to assess an essay or presentation

- **Group-level results**: Based on the measure used, what number/proportion of students attained the given student learning outcome (SLO)? In other words, how many students met the student-level criterion?
  - Example: 77% of the students met or exceeded expectations on that measure
How to interpret and use the results?

- **Student-level criterion**: Based on the measure used, did the *individual student* attain a given learning outcome or not?
  - Example: At least 75% (3 out of 4 questions) on questions embedded in an exam; “met or exceeded expectations” on a rubric to assess an essay or presentation

- **Group-level threshold**: What *percentage of students* needs to attain the given learning outcome before we can claim a success? Or, to put it differently, what is the highest acceptable percentage of students *not* attaining the given learning outcome? (Mean or median group scores are less useful here because they hide the distribution of the scores.)
  - Example: At least 80% of students should meet or exceed expectations
How to interpret and use the results?

• A summary report/ memo (with a synthesis of results)

• Departmental meeting to share and discuss

• Goal = to use the results to improve student learning
# Assessment plan: Key recommendations

<table>
<thead>
<tr>
<th>Question</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What to assess?</strong></td>
<td>Departmental learning goals (1-3 per year) Mapped onto Bucknell’s educational goals</td>
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<tr>
<td><strong>When and where to assess it?</strong></td>
<td>Curriculum map is a useful guide Assessment in majors and non-majors</td>
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<tr>
<td><strong>How to assess it?</strong></td>
<td>Typically course-embedded assessment Direct measures first, then indirect measures Benefits of using an assessment rubric</td>
</tr>
<tr>
<td><strong>How to interpret and use the results?</strong></td>
<td>Student-level and group-level thresholds Summary report/memo and department discussion Use the results to improve student learning</td>
</tr>
</tbody>
</table>
More assessment resources on OIRP website

http://www.bucknell.edu/InstitutionalResearch (or search for “assessment” from the landing page)
If your department or program learning outcomes have changed, please send me (Agnes) the revised version, or submit a web update request (https://buapps.bucknell.edu/script/communications/forms/default.aspx?formid=15994)

https://www.bucknell.edu/about-bucknell/institutional-research-and-planning/assessment
Welcome to Assessment Resources

The purpose of this site is to support Bucknell faculty and staff in their planning and assessment efforts by providing them with resources related to assessment of student learning and institutional effectiveness. The resources are organized by student skill or competency within general education by academic discipline and department; and by non-academic department.

The site is maintained by the Office of Institutional Research & Planning. If you have any suggestions, or have a resource to add to the site, please contact Agnes Jasinska at aj006@bucknell.edu. We want this site to be as useful to you as possible!

http://moodle.bucknell.edu/course/view.php?id=22627
Please email me if you would like to continue the conversation

- Consultations
- Workshops
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Thank you