Six-Step Assessment Process: Student Learning Outcomes & Performance Outcomes

Assessment: Basics

09.20.17
Get ready for WSCUC

- Integrated strategic plan
- Assessment
- Student success
- Funding
Where do we carry out assessment

University

Division

Unit

University Learning Goals
Strategic Plan Goals

Division POs/SLOs

Unit POs/SLOs
Six-step assessment process*

What do we want our students to learn and/or our units to accomplish?

How are we doing?
How do we know?

What changes are we making?
Are the changes working?

How are we documenting the assessment AND improvement activities/results?

What evidence do we need to know to determine whether we are successful?

How do we use data to confirm/improve our practices?

*AECC  Spring 2014
Step 1: Develop SLOs/POs

• A statement

SLO

• Significant & essential learning that students achieve at the end of a program

• Knowledge; Skill; Attitude

• Focus on student learning

PO

• Measurable end results or consequences of activities, services, or program

• Variety of results

• Focus on operational effectiveness

SLO or PO?
Depends on the nature of the outcome, not the function of the unit
Where do outcomes come from

- “Top-down” vs. “Bottom-up”
- Adapt from existing “best practices”
- Engage faculty/staff
- Involve important but often forgotten stakeholders (students, alumni, employers, etc.)
Mission...Goals...Outcomes...Objectives...

Mission
Holistic vision of the values and philosophy of an institution/division/department/unit

Goals
Broad, general statements about general aims, purpose or expectations
Unit/Program-centered

Outcomes
Clear, specific “operational definitions” of goals
Customer/Learner-centered
What are good outcomes

- Customer/Learner-centered, not unit/program-centered
- Aligned with the mission and goals of university, division, college, etc.
- Focus on “high-priority learning”
- Real (not aspirational)
- Simple language
- Specific, clear and concise
- Demonstrable and measurable
- Discrete (no “double-barrel” statements)
- Manageable (more is not better)

*Adapted from Mary Allen workshop (2006) & ALA (2016)
### Sound SLOs are Active

<table>
<thead>
<tr>
<th>LEVELS of SLOs (Bloom et al., 1956)</th>
<th>BLOOM’S TAXONOMY EXAMPLE ACTION VERBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Assess, Conclude, Criticize, Justify, Value</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Assemble, Create, Design, Produce, Reconstruct</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analyze, Compare, Differentiate, Experiment, Solve</td>
</tr>
<tr>
<td>Application</td>
<td>Apply, Demonstrate, Modify, Practice, Use</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Convert, Explain, Interpret, Paraphrase, Report</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Define, Describe, List, Name, Outline</td>
</tr>
</tbody>
</table>
## Outcome examples*

<table>
<thead>
<tr>
<th>Unit</th>
<th>PO</th>
<th>SLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Center</td>
<td>Students receive adequate support and feedback on their job seeking effort.</td>
<td>Students demonstrate professionalism in the job seeking process.</td>
</tr>
<tr>
<td>Center for Scholars</td>
<td>McNair Scholars are provided with step-by-step guidance to transition into graduate school.</td>
<td>McNair Scholars can identify necessary steps for a successful transition into graduate school.</td>
</tr>
<tr>
<td>Office of Assessment</td>
<td>Student Assessment Scholars will receive high quality training to carry out learning assessment activities.</td>
<td>Student Assessment Scholars can apply basic research skills to carry out learning assessment activities.</td>
</tr>
</tbody>
</table>

*Suggested, not actual, outcomes*
Case Study: Step 1
Step 2: Identify methods and measures learning

• We are *already* and *always* assessing how we are doing and/or how our students are learning

• The evidence/measures already in place are NOT always the best place to start
  • Do the measures address the outcomes?
# A bit of vocabulary

<table>
<thead>
<tr>
<th>Direct</th>
<th>vs.</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value-added</td>
<td></td>
<td>Absolute</td>
</tr>
<tr>
<td>Embedded</td>
<td></td>
<td>“Add-on”/External</td>
</tr>
</tbody>
</table>
Choosing the right measure

• **Valid:** Are you measuring the outcome?
• **Reliable:** Are the results consistent?
• **Actionable:** Do the results clearly tell you what students can or cannot do?
• **Triangulation:** Are there multiple lines of evidence for the same SLO?
• **Meaningful and engaging:** Are faculty engaged? Do students care?
• **Sustainable:** Can the process be managed effectively within the program context?
## Direct measure examples

### SLO
- Exam/Quiz
- Paper/Presentation
- Project/Portfolio
- Recital/Exhibition
- Peer evaluation

### PO
- Quantity & quality of service
- Completion/Usage/Error rate
- Analysis of processing time
- Needs analysis/Gap analysis
- Customer/Supervisor evaluation
Indirect measure examples

**SLO**
- Self-reflection essay
- Self-report survey
- Interview
- Focus group
- Report by alumni, employer, etc.

**PO**
- Customer survey**
- Interview
- Focus group
- Comparison to best practices in the profession

**Surveys are not always indirect assessment**

Direct evidence helps tell us “what”, and indirect evidence helps tell us “why”.
Triangulating direct and indirect measures

Career Center:
SLO: Students demonstrate professionalism in the job seeking process

DIRECT
- Scenario-based exam questions
- Rubric scoring of job seeking materials
- Interviewer/employer evaluation

INDIRECT
- Self-assessment survey
- Graduate survey
- Alumni interview
Triangulating direct and indirect measures

Center for Scholars:
PO: McNair Scholars are provided with step-by-step guidance to transition into graduate school.

- **DIRECT**
  - # of guidance or advising sessions provided per student
  - % of students successfully transitioned into graduate school
  - Student survey on quality of service provided

- **INDIRECT**
  - Survey of graduate school admission officers
  - Comparison of successful transition rate with peer institutions
Office of Assessment:

**SLO:** Student Assessment Scholars can apply basic research skills to carry out learning assessment activities.

**DIRECT**
- Exam questions on relevant research skills
- Final project (paper/presentation)
- Department (i.e. client) evaluation
- Peer evaluation

**INDIRECT**
- End-of-program survey on self-perceived skills
- Self reflection essay
- Focus group
Case Study: Step 2
What are rubrics

• Scoring guides that explicitly classify learning products/behaviors into categories that vary along a continuum.

• No one format - Flexible!

Basic elements:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Capstone</th>
<th>Milestone 1</th>
<th>Milestone 2</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation of issues</td>
<td>Issue/problem to be considered critically is stated clearly and comprehensively, demonstrating all relevant information necessary for full understanding.</td>
<td>Issue/problem to be considered is stated clearly, but description leaves some terms undefined, ambiguities unresolved, and/or boundaries undetermined.</td>
<td>Issue/problem to be considered is stated but description leaves some terms undefined, ambiguities unresolved, and/or boundaries undetermined.</td>
<td>Issue/problem to be considered is stated, but description leaves some terms undefined, ambiguities unresolved, and/or boundaries undetermined.</td>
</tr>
<tr>
<td>Evidence</td>
<td>Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Perspectives of experts are questioned thoroughly.</td>
<td>Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Perspectives of experts are taken as fact, without question.</td>
<td>Information is taken from source(s) without any interpretation/evaluation. Perspectives of experts are taken as fact, without question.</td>
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<tr>
<td>Influence of context and assumptions</td>
<td>Thoroughly systematically and methodically analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.</td>
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</tr>
<tr>
<td>Student’s position (perspective, thesis/hypothesis)</td>
<td>Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Other points of view are synthesized within position (perspective, thesis/hypothesis).</td>
<td>Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.</td>
<td>Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.</td>
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</tr>
<tr>
<td>Conclusions and related outcomes (implications and consequences)</td>
<td>Conclusions and related outcomes (implications and consequences) are logical and reflect student’s informed evaluation and ability to place evidence and perspectives discussed in priority order.</td>
<td>Conclusion is logically tied to range of information, including opposing viewpoints, related outcomes (implications and consequences) are identified clearly.</td>
<td>Conclusion is logically tied to information (because information is chosen to fit the desired conclusion), some related outcomes (implications and consequences) are identified clearly.</td>
<td>Conclusion is inconsistently tied to some of the information discussed, related outcomes (implications and consequences) are oversimplified.</td>
</tr>
</tbody>
</table>
Step 3: Determine criteria for success

• A performance standard:
  • What level of performance is good enough?
  • Pre-determined!
  • Supported by historical data, reasonable expectations, theoretical frameworks...
# Criteria for success examples

<table>
<thead>
<tr>
<th>Program/Unit</th>
<th>PO</th>
<th>Measures</th>
<th>Criteria of success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Center</td>
<td>Students demonstrate professionalism in the job seeking process</td>
<td>- Rubric scoring of job seeking materials</td>
<td>- 75% of students received a score of “adequate” or higher</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Student self-assessment survey</td>
<td>- 90% of students self-report as “confident” in demonstrating professionalism</td>
</tr>
<tr>
<td>Center for Scholars</td>
<td>McNair Scholars are provided with step-by-step guidance to transition into graduate school.</td>
<td>- % of students successfully transition into graduate school</td>
<td>- 95% of students successfully transition to graduate school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Comparison of successful transition rate with peer institutions</td>
<td>- Success rate higher than the average of fellow CSUs</td>
</tr>
<tr>
<td>Office of Assessment</td>
<td>Student Assessment Scholars can apply basic research skills to carry out learning assessment activities.</td>
<td>- Department (i.e. client) evaluation</td>
<td>- Student scholars on average receive 3.5 or higher (out of 5) evaluation score from the departments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Focus group</td>
<td>- Focus group participants express consensus that the Student Assessment Scholars have the necessary research skills</td>
</tr>
</tbody>
</table>

*Suggested, not actual, outcomes*
Case Study: Step 3
Step 4: Collect and analyze data

• **Sampling!**
  - Relevant, Representative, and Reasonably sized
  - Determined by the outcome and unit context
  - Moderate sample size is sufficient (e.g. “50-80” rule; 20-30%).
    - Very large sample size is rarely needed.
    - If homogenous population, small samples are sufficient.
Case Study: Step 4
Step 5: Plan and execute improvement actions

- Review the assessment findings
- Determine plan for change (if needed)
  
  Small changes matter

<table>
<thead>
<tr>
<th>Possible Changes for SLO</th>
<th>Possible Changes for PO</th>
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<tbody>
<tr>
<td>Curriculum</td>
<td>Infrastructure</td>
</tr>
<tr>
<td>Pedagogy</td>
<td>Program design</td>
</tr>
<tr>
<td>Faculty support</td>
<td>Service delivery</td>
</tr>
<tr>
<td>Student support</td>
<td>Tools used</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assessment plan</td>
</tr>
<tr>
<td></td>
<td>More data collection?</td>
</tr>
</tbody>
</table>

- Don’t forget to re-assess the improvement actions!

NILOA (2014)
Improvement actions example 1

• Associated Students, Inc.:

  • Student employees reported significant growth in oral communication skills, but not in written communication. Supervisor evaluation of student skills do not support students’ positive self-report.

  • *Unit will 1) develop plans to investigate possible areas of improvement for student oral communication development; 2) review the nature of student employee positions; 3) adjust the outcome to truly reflect the skills applicable to student employee positions.*
Improvement actions example 2

• Disability Support Services:

  • In the new student orientation survey, over 80% of students expressed satisfaction of the overall quality of the orientation; over 80% of students indicated that they knew how to access DSS services.
  • Data exceeded the criteria of success - outcome met

  • Unit will 1) review open-ended questions on the survey to identify specific ways to further improve the orientation program; 2) develop a direct assessment measure; 3) attend a disability related assessment conference to improve assessment plan.
Improvement actions example 3

• Business Communication

• Student writings of a case analysis were graded using the CLASS rubric, and found that students had the greatest deficiencies in “Strategy”.

• Program 1) collected additional demographic data to narrow down weakness population; 2) offered faculty development workshop on case analysis; 3) emphasized use of topic sentences and supporting evidence; 4) provided sample professional documents for use in classroom and homework exercises.

• Writing communication scores improved 17% between 2009 and 2012
Step 6: Document assessment activities

Tell a coherent story

Weigh the pig AGAIN
Case Study: Step 5 & 6
A multi-year assessment plan

**What to plan for:**

- Timeline
- Process
- Participants
- Steps to turn assessment results into improvement actions
- Self-evaluation/Reflection of the assessment process
A multi-year assessment plan (cont.)

• **Guidelines:**

  - Start with a small number of outcomes
  - Determine a realistic assessment plan cycle, i.e. how long (e.g. 7 years) to complete meaningful assessment of all outcomes
  - Create a multi-year assessment plan that assesses 1-2 outcomes a year
  - Consider overlapping assessment (of new outcomes) and improvement (of assessed outcomes) activities
  - Make sure assessment involves the entire unit

*Outcome is not for only 1 year*
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www.fullerton.edu/assessment