Developing Relevant and Measureable Student Learning Outcomes

A Roadmap for College Professors

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Faculty are experts in their field/discipline, but not all faculty are expert educators.

Expert or not, we could always reflect on what we do in the classroom or program to **be more effective**.

A good place to focus on is **Student Learning Outcomes (SLOs)**.
Presentation Overview

1. Define and Identify Student Learning Outcomes (SLOs)
2. Explain why SLOs are relevant for teaching/learning effectiveness
3. Create and Express relevant and measureable SLOs.
4. Evaluate SLOs using a simple checklist.
About Us

Office of Academic and Institutional Excellence
(formerly Office of Accreditation and Assessment)

- Stewards of institutional assessment reporting process and schedule for SACSCOC reaffirmation
  - Program assessment (academic majors)
  - Student service unit assessment
  - Administrative service unit assessment (departments)

- Support faculty and staff in...
  - Assessment Planning/Implementation
  - Artifact Collection
  - Data Analysis
  - Assessment Reporting

- For more info visit: www.utrgv.edu/oaa
- Email us at: assessment@utrgv.edu
SACSCOC’s Assessment Mandate Require Institutions to:

- **Articulate** program student learning outcomes (SLOs)
- **Assess** program SLOs
- **Analyze** assessment results to identify strengths/weaknesses of student learning
- **Use results** to seek improvements to student learning in the program
Sifting Through the Terms of \textit{Learning Intentions}
Why The Term: Student Learning Outcomes (SLOs)?

• Term is more **specific** than goals and can be applicable to any setting
  • Helps communicate learning expectations to students in a course, program, activity, project, etc.

• Term is **Student-centered**
  • Term is about students, not what professor, course, or program will do or cover

• Term is **Results-oriented**
  • SLOs are about the destination, rather than the actions taken to get there
Part 1) Define SLOs
What are Student Learning Outcomes (SLOs)?

- *SLOs are clear, concise, and measurable statements that identify the knowledge, skills, and attitudes that students will learn or develop by the end of a course, program, or experience.*

- SLOs are usually expressed as knowledge, skills, and attitudes.

<table>
<thead>
<tr>
<th>Cognitive SLOs</th>
<th>Behavioral SLOs</th>
<th>Attitudinal SLOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Recall</td>
<td>Communication</td>
<td>Tolerance</td>
</tr>
<tr>
<td>Knowledge Application</td>
<td>Artistic Performance</td>
<td>Grit</td>
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</table>

Definition adapted from Suskie (2009) and Banta and Palomba (2015)
Which of the following statements do not fit the definition of a SLO?

A. The course will review the organizational elements of American government.

B. Students will respect the cultural beliefs and customs of clinical patients.

C. Students will complete a minimum 6-page essay on a popular culture phenomenon of their choosing.

D. Students will be able to identify the interactions between geography and other realms of knowledge such as, history, politics, economics, etc.
SLOs are not...

- **An inventory of course requirements**
  - Submit work in a timely manner
  - Participate in class discussion

- **Expectations for achieving course grades**
  - Correctly answer 80 percent of all questions on the final exam
  - Pass the oral comprehensive exam

- **Teaching Goals / Strategies, or Course Topic Descriptions**
  - Provide timely feedback to students
  - Introduce the organizational structure of American government
  - Cover the legislative process in state legislatures
Part 2) Explain why SLOs are relevant for teaching/learning effectiveness
Why are SLOs Relevant for Teaching and Learning?

**Increase Achievement & Motivation:**
If Students Know Expectations, it Increases Their Ability To Meet Them
Ambrose et al. (2010); Banta & Palomba (2015)

**Enhance Information:**
1st Step to Inform Faculty About Teaching Effectiveness (It’s what best profs do!)
Angelo & Cross (1993); Bain (2004)

**Facilitate Planning:**
Guide Faculty in Designing Meaningful/Aligned Learning Experiences & Assessments
Angelo & Cross (1993); Menges & Weimer (1996)

**Improve Accountability:**
Students Can Tell Their Parents (& Employers) What They Learned
Menges & Weimer (1996)
Where Do SLOs Come From?

Can be Prescribed by:

- State Government/Agency
  - General Education
- Program Accréditor
  - Council for the Accreditation of Educator Preparation (CAEP)
  - Accreditation Board for Engineering and Technology (ABET)
  - Association to Advance Collegiate Schools of Business (AACS)
- Colleges and Universities
  - University of Notre Dame
  - Cal Poly
  - U Denver

Can be Self-Generated by:

- Academic Programs (required by SACSCOC)
  - BA Political Science
  - BS Biology
- Course Faculty
  - POLS 2301 Intro to American Government
  - BOIL 1301 General Biology I
- Employers, other stakeholders
- Students
  - Program grads
  - Students enrolled in program or course
Part 3) Create and Express relevant and measureable SLOs
The Best Place to Begin Developing Your SLOs is by Reflecting (Make them Relevant)

ANSWER THE FOLLOWING:

• What should students be able to do, learn, or value by the time they complete the program, course, or learning experience (project, activity)?
  1)  
  2)  
  3)  

• Why are these outcomes important for students to learn?

• Do any of these outcomes align to disciplinary or professional standards?

• Note: It’s good practice to answer these questions with your colleagues

Source: Suskie (2009)
Collaborate with Others to Think About the “Ideal” Program Graduate

• If you were to meet a student five years after they successfully completed your program:

  • What would that student tell you that he or she remembered in terms of facts and ideas?

  • What would that student tell you that he/she does within the field or discipline?

  • What attitudes or beliefs would that student express?

Source: “Case study: Texas Christian University Assessment System” (Wehburg 2017)
Use a Learning Framework As a Guide To Further Categorize and Develop Your SLOs

Bloom’s Revised Taxonomy (Anderson and Krathwohl, 2001)

Dee Fink’s Taxonomy of Significant Learning (Fink, 2004)

Teaching Goals Inventory (Angelo and Cross, 1993)
Use Dee Fink’s Taxonomy of Significant Learning To Generate SLOs

Using Bloom’s Revised Taxonomy to Create Cognitive SLOs

1. Review and select cognitive process dimension for your SLOs (*Hint: Read the description*)

2. Cross-reference your SLOs with the list of *<<action verbs>>* associated with their corresponding cognitive levels (*Hint: Pick verb that exemplifies what you want students to demonstrate*)

3. Write the SLOs appropriate to the course, program, or learning experience (*Hint: Tailor cognitive process to course content or discipline*)

See handout for more info on using Bloom’s Revised Taxonomy

**Example of Course SLO:** *<<Explain>>* the foundational values and central ideas of American government.
The Importance of Action Verbs

• Action verbs result in behavior that can be observed and measured

Avoid unclear verbs about internal processes; they are difficult to measure:

• Appreciate
• Think about
• Become familiar with
• Know
• Understand
• Gain awareness of

Source: Suskie (2009)
## Components of SLO Statements

<table>
<thead>
<tr>
<th><strong>&lt;&lt;Audience&gt;&gt;</strong></th>
<th><strong>&lt;&lt;Action Verb&gt;&gt;</strong></th>
<th><strong>&lt;&lt;Content/Product&gt;&gt;</strong></th>
<th><strong>&lt;&lt;Context&gt;&gt;</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Who does the outcome pertain to?</td>
<td>What is the learning (knowledge, skill, value) that will be demonstrated?</td>
<td>What is the subject, topic, material focus, or product associated with the learning expectation?</td>
<td>Under what circumstances or conditions will the outcome be demonstrated?</td>
</tr>
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</table>
Use This Worksheet To Construct Your SLOs

<table>
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<th>Action Verb</th>
<th>Content/Product</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students in the course will</td>
<td>&lt;&lt;analyze&gt;&gt;</td>
<td>&lt;&lt;arguments&gt;&gt;</td>
<td>about immigration politics and policy.</td>
</tr>
<tr>
<td>Program graduates will effectively</td>
<td>&lt;&lt;apply&gt;&gt; the</td>
<td>&lt;&lt;qualities of professional writing&gt;&gt;</td>
<td>including, sentence conciseness, readability, clarity, accuracy, organization, and coherence.</td>
</tr>
<tr>
<td>Students that complete the program will be able to</td>
<td>&lt;&lt;frame&gt;&gt;</td>
<td>clear &lt;&lt; thesis statements&gt;&gt;</td>
<td>for complex research questions or problems in the discipline.</td>
</tr>
<tr>
<td>Graduate Students will</td>
<td>&lt;&lt;construct&gt;&gt;</td>
<td>&lt;&lt;research questions&gt;&gt;</td>
<td>that can be investigated using primary archival resources.</td>
</tr>
</tbody>
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*Note: See handout*
Part 4) Evaluate strengths/weaknesses of SLOs
Characteristics of Strong SLOs

• **Specific**: SLOs are specific and stated in clear and definitive terms
• **Measurable**: SLOs are observable and measurable (action verbs). Activities and assessments can be created to facilitate learning and evaluation.
• **Ambitious/Attainable**: SLOs are reasonable for students to achieve, yet sufficiently challenging to promote growth.
• **Results-Oriented**: SLOs identify knowledge, skills, values that students will achieve or develop, but are not teaching or academic processes to get there.
• **Tailored**: SLO are a good fit for the course, program, or learning experience.

Adapted from The University of Central Florida’s Faculty Center for Teaching and Learning: [http://fctl.ucf.edu/teachingandlearningresources/coursedesign/assessment/smart.php](http://fctl.ucf.edu/teachingandlearningresources/coursedesign/assessment/smart.php)
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<th>SLO Checklist To Evaluate SLOs</th>
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<th></th>
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<tbody>
<tr>
<td>Is the SLO specific and stated in clear, definitive terms?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the SLO feasible to collect reliable, accurate data?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the SLO ambitious, yet reasonable for students to achieve?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the SLO results-oriented by focusing on expected student behaviors (knowledge, skills, values), not on teaching or academic processes?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Is the SLO a good fit for the course, program, or learning experience?</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Which are the strongest SLO statements?

A. Students will appreciate the benefits of exercise science

B. Students will complete an exam on how the science of exercise affects stress

C. Students will explain how the science of exercise affects stress by citing the recent literature.

D. Students will deconstruct stress data to evaluate the benefits of exercise science.
Why are SLOs fundamental for integrating teaching, learning, & assessment?
Instructional Design Approaches

“List of Topics” Approach (content-centered):

1) Teacher looks at course subject
2) Creates list of 8-12 topics that will be covered
3) Creates lectures/assignments on each topic

Backward Design / Integrated Approach (learner-centered):

1) Teachers Create SLOs
2) Creates Assessments & Feedback Processes
3) Creates Teaching/Learning Activities
   - Lectures,
   - Simulations,
   - Debates,
   - Films,
   - Discussions,
   - Projects,
   - Case studies

“What would the students need to do during the course to be able to do well on these assessment activities?”
“What do I need to do to help students do well on assessment activities?”

“What would the students have to do to convince me that they had achieved the learning outcomes?”

SLOs are the common denominator in effective course design!

SLOs can align learning experiences with learning expectations across multiple levels

Coordinating Board / Accréditor / College / Discipline Standards

Program

Course

Topic

Teaching/Learning Activity

Assessment & Feedback

Lectures, Reading Assignments, Simulations, Films, Discussions, Writing Assignments, Research Projects, Service Learning

Students will **analyze** information, ideas, and perspectives relevant to the discipline of political science.

Students will **analyze** the politics and policy of immigration in the U.S. (Course: U.S. Immigration Policy)

Students will **analyze** legislative institutions in western Europe. (Course: Comparative Legislatures)

Students will **analyze** the arguments used for and against the Latino Threat Narrative

Students will **analyze** empirical data to evaluate the validity of the Latino Threat Narrative used in campaigns.

Students will **analyze** the affective qualities of political speeches on immigration to determine the approaches taken by each major political party
To Recap, Workshop participants will be able to...

1. Define and Identify Student Learning Outcomes (SLOs)
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Thanks!

Q & A
References


References Cont’d


