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INSTRUCTOR CHECKLIST – LEARNING OBJECTIVES

This checklist summarizes literature-based recommendations for using learning objectives (LOs) to guide assessment and classroom instruction and highlights areas of ambiguity or disagreement in the literature. A salient conclusion is that the effectiveness of an LO is determined by the clarity of language, relevance to standards in the field, and the extent to which it can be measured. Summaries of the articles leading to these recommendations can be found in the LSE Feature: Evidence-Based Teaching Guides.

WRITING INSTRUCTIONAL LOs

- Learning objectives should be well-written and avoid ambiguous wording. Student perceptions and outcomes are optimized when LOs are clear and specific.
 - Avoid putting multiple LOs into a single statement.
 - Steer clear of vague action verbs such as "understand," "appreciate," and "know about."
 - Refrain from focusing on isolated facts.
- Convey the expectations of what a student will be able to do as a result of instruction.
 - Use an action verb to describe the expected performance.
 - When appropriate, include the conditions under which the performance is expected and the acceptable performance criteria.
 - Performance criteria can also be communicated in the syllabus or other documents rather than within the LO itself.
- Use the Revised Bloom's taxonomy as a framework for categorizing LOs according to their complexity and thinking skills.
 - Include LOs that address the field's breadth of complexity and thinking skills.
 - Consider using a table listing [Bloom's Taxonomy of Measurable Verbs](#) to develop LOs that measure various cognitive skills.

PLANNING ASSESSMENTS THAT ARE ALIGNED TO LOs

- Review alignment of all LOs. Course-level LOs should be aligned with programmatic LOs, and instructional LOs should be aligned with course-level LOs.
- Develop assessments for formative or summative purposes to measure student progress in achieving the stated LOs. Use a curriculum-mapping tool to associate each assessment item with at least one LO.
- The "performance" and "conditions" components of the LOs should guide the assessment formats and uses. Assessment formats should support and enable the required performance under the specified conditions. Assessment of content knowledge and skills specified by the LO should not be limited to standard exams. Instead, it may include problem-solving, group discussions, projects, concept inventories, personal response systems, etc.
- Formative uses of assessment allow students to practice the expected performance and stated conditions of the LOs and engage in self-assessment to refine their study activities. Instructors similarly can use such information to improve teaching activities and determine class readiness to proceed in the curriculum.

PLANNING INSTRUCTIONAL ACTIVITIES ALIGNED TO LOs

- ❑ Learning objectives should be used as a framework for building course activities. Focus classroom instruction and learning activities on the priorities established by LOs stated in the syllabus and daily materials (e.g., slides or handouts), and course-level LOs declared in the syllabus.
- ❑ Consider using pretests to focus student attention on LOs. Pretests communicate course expectations to students, serve as an effective way to self-assess and prepare for later assessments, increase student motivation and morale by making learning progress more visible, and increase retention of information as measured by final test scores. Some data suggest that these benefits are reduced when instructors provide corrective feedback following the pretest.
- ❑ Classroom activities should explicitly articulate the LOs. Understanding the purpose of instruction facilitates increased student engagement. Strategies to accomplish this might include:
 - Visually representing LOs rather than presenting only a text-based list.
 - Displaying LOs on slides during class.
 - Creating active learning activities that encourage direct interaction with specific LOs.
 - Connecting learning activities to LOs in a learning-management tool, allowing students to track their progress toward mastery.
- ❑ Devote most class time to active learning activities that address the LOs. Instruction that supports student engagement with the content—rather than relying on rote memorization—is associated with better performance on assessments. Group problem-solving, discussions, peer instruction, and other in-class activities allow students to practice and demonstrate the competencies articulated in LOs and should be prioritized over lectures that strive to "cover all of the content." Resources for using groups can be found at <https://lse.ascb.org/evidence-based-teaching-guides/group-work/>. Resources for using peer instruction can be found at <https://lse.ascb.org/evidence-based-teaching-guides/peer-instruction/>.

TEACHING STUDENTS TO USE LOs

- ❑ Provide opportunities for students to use LOs by focusing on their ability to identify important content, organize their study efforts, and set goals that facilitate increased success. Design activities for students to turn LOs into questions and then answer those questions to provide practice opportunities and support self-assessment.

IMPROVING THE USE OF LOs THROUGH COLLABORATION

- ❑ Engage in professional development in collaborative groups to develop LOs and improve their quality. Being a part of a collegial community of practice supports instructors in implementing changes in teaching practices. Collaborative approaches to revising LOs increase the percentage of higher-order cognitive processes instructors create and use in assessment.
- ❑ Generate departmental support for course redesign efforts by attending national workshops and on-campus seminars as a department.