**iDEA Book Pro-Tips**

Learning objectives

Learning objectives or outcomes are statements that identify the knowledge, skills, or attitudes that students should achieve through participation in a learning experience. Well-written objectives capture observable, measurable behaviors that students are able to demonstrate after completing the activity or experience.

Learning objectives serve different purposes and stakeholders. Accrediting bodies use learning objectives to better understand what and how students are learning in a course or program. Additionally, learning objectives are the starting point for program and course design. Every course, learning activity, and assessment must refer to, or align with, learning objectives. Finally, learning objectives provide a rationale for why students should engage in learning activities and complete assessments.

SMART goals

Learning objectives make what has previously been a course vision or narrative more clear, concrete, and measurable. One common approach to creating learning objectives is to use the SMART (specific, measurable, achievable, reasonable, and time-bound) goal framework:

- Specific: Be precise in describing what a learner should be able to do.

- Measurable: Identify performance goals that can be quantified through student assessment. Sometimes it can be helpful to ask yourself questions such as: How much? How many? How will I know it has been accomplished?

- Achievable: Make sure the objective is something that can be accomplished. In other words, it should begin with an action verb. Instructors typically use learning taxonomies to supply appropriate action verbs for their courses.

- Reasonable: Confirm that the objectives can be achieved in the context of the course (i.e., given the timing, available resources, or other limiting factors).

- Time-bound: Specify a time frame for the learning to take place. For a course, this is often accomplished by stating, "After completing the course, the learner will be able to…."
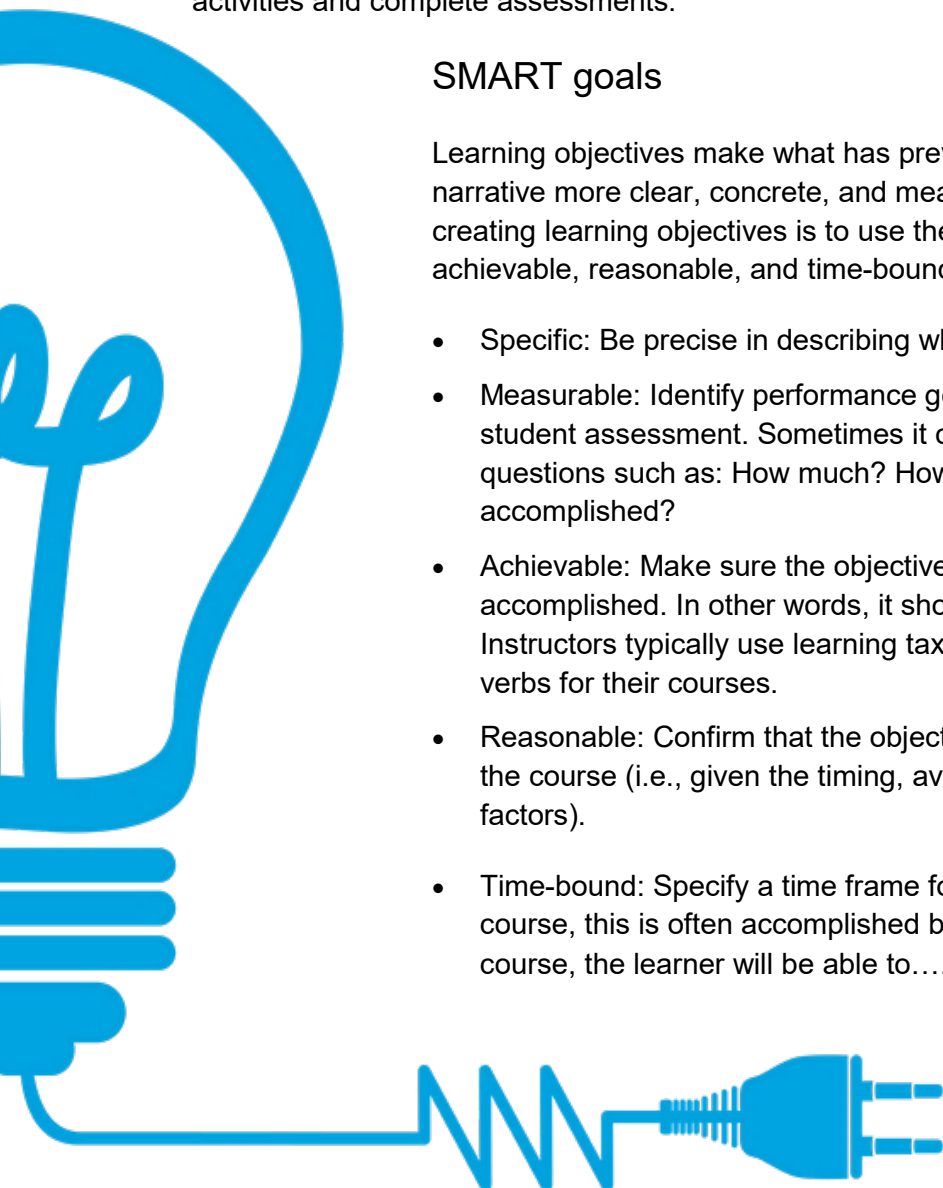
Learning taxonomies

Learning taxonomies are classification systems that describe different types of learning. Their dependence on demonstrable action verbs makes them useful for writing learning objectives for several reasons. The SMART goal framework requires the use of action verbs to structure learning goals in terms of observable, measurable, achievable actions. Second, taxonomies organize those action verbs into categories that encourage instructors to consider the big picture: How do students need to learn and demonstrate their knowledge? How do these different types of learning fit together?

Choice of learning taxonomy is typically driven by an institution, discipline, or educational context. It should be noted, however, that learning taxonomies are not mutually exclusive and can complement one another, depending on context. Common options include Revised Bloom's taxonomy, Webb's depth of knowledge, and Miller's pyramid of assessment.

Examples of learning objectives

Evaluate the example objectives provided below. Do they follow the SMART goal framework? If not, how might they be improved?

Example 1: By the end of this module, students will be able to apply the Pythagorean theorem to solve for the area of a triangle.

- Specific: Yes.
- Measurable: Yes. A student can demonstrate correct application by answering an assessment question.
- Achievable: Yes. It is an action, as indicated by the action verb *apply*.
- Realistic: Yes. A student should be able to learn a theorem in the context of a module.
- Time-bound: Yes. The student will achieve this objective during a module.

Example 2. Understand Einstein's theory of relativity.

- Specific: No. What should students be able to do with the theory of relativity?
- Measurable: No. What does understanding look like? How will students demonstrate that they understand?
- Achievable: No. *Understand* is not an action verb. Alternatives might include *explain*, *describe*, *apply*, or *analyze*.
- Realistic: Unclear. We do not know enough about the objective to evaluate it.
- Time-bound: No.

Additional resources

- Iowa State University: **Revised Bloom's taxonomy**
- State University of New York (SUNY—OSCQR): **Course objectives and outcomes**