Writing Program-Level Student Learning Objectives

The purpose of this document is to help faculty responsible for an academic program write program-level student learning objectives.

In the beginning, there is always confusion about different meanings for goals, objectives, and outcomes. In this context, the term "goal" is reserved for more general statements of purpose. For example, students will learn basic concepts and principles of the field of study (e.g., art history, chemistry, ethnic studies, etc.). The terms "objective" and "outcome" will be used interchangeably for statements about more specific and measurable processes and products of learning. *A program-level student learning objective should describe what a person is expected to demonstrably know, be able to do, or exhibit a propensity to do, as a result of a program of learning*.

There are different kinds of learning outcomes. This document will focus on three kinds of outcomes: knowledge outcomes, ability outcomes, and disposition outcomes.

Knowledge Outcomes. For a knowledge outcome, the choice of action verb is important as a way to connote the nature and depth of knowledge you intend to assess. For example, "recognize facts in the field of study" connotes a minimal depth of processing of factual knowledge. "Recognize theories, models, and structures in the field of study" is still a minimal depth of processing, but of conceptual knowledge. In most cases, mere recognition of information, whether it be factual knowledge, conceptual knowledge, or procedural knowledge, will not suffice as a desired learning outcome for a baccalaureate degree. Recognizing metacognitive knowledge in a field of study might be an exception to this rule.

As a rule, expectations for knowledge outcomes at the baccalaureate level are going to require understanding, application, and analysis of knowledge in the field of study. Honors work at the undergraduate level, and graduate level learning objectives should always require deeper levels of factual, conceptual, and procedural knowledge, such as evaluation and creation of knowledge; and some understanding, application, and analysis of metacognitive knowledge in the field of study.

Ability Outcomes. Ability outcomes entail different levels of skilled performance in addition to knowledge in the field of study. In addition to expecting students to demonstrate specific knowledge outcomes, we expect them to demonstrate certain abilities in the specific context of the field of study. These abilities include some or all of the following, with perhaps different levels of ability expected in different fields of study: analysis, collaboration, communication, ethical decision-making, information, integration, international, leadership, multicultural, problem-solving, quantitative reasoning, and technology.

In some fields of study, but not all, other common ability outcomes include aesthetic sensitivity, artistic or intellectual creativity, interpersonal or social interaction, and religious or spiritual discernment.

Disposition Outcomes. In this context, disposition means a propensity to act in a certain way. In the traditional parlance of liberal education outcomes, its meaning is the same as a "habit of mind." Examples of dispositions commonly articulated as learning outcomes include: civic engagement, commitment to social justice, ethical conduct, openness to new ideas, and taking responsibility.

Choosing Program-Level Student Learning Outcomes

A first bit of practical advice: in the beginning, do not try to articulate a complete set of program learning objectives before you do anything else, unless you are trying to fail. Choose a few

learning objectives that most faculty agree are among the most important. Then the process of developing an assessment plan and conducting assessments can move forward while the faculty continues to debate objectives about which there is less agreement. Experience with the full cycle of activities involved in assessing learning and using results to improve programs will help the faculty better understand what is desirable and possible with respect to different learning objectives.

Before attempting to write program-level student learning objectives, it helps if the faculty have discussed and agreed upon a program mission statement and goals for student learning clearly stemming from the mission statement. Learning objectives stemming from the program mission statement and/or from the university mission statement are most likely to have the support of most faculty.

A good mission statement leads with an educational purpose distinctive to the degree and field of study, and identifies the signature feature of the program. If you have this, you have a great place to start identifying your most important student learning outcomes.

For example, the mission statement of the Bachelor of Arts in Sociology program at USD includes this vivid statement of purpose: *"One goal we share in common resonates with USD's mission: to work toward social justice*. [Our mission is to] *breathe into our students the spirit of the 'sociological imagination,' we do so with this theme of social justice in mind."*

C. Wright Mills' famous expression neatly encapsulates an approach to sociology that can readily be translated into an important knowledge outcome: able to analyze relations between "private troubles" and "public issues," by applying theories, mechanics and structures of the discipline of sociology. This signature feature includes a direct link to the university mission and a disposition outcome: a disposition to analyze with the theme of social justice in mind, and to work toward social justice.

The mission statement of the university is itself another important starting point. The USD mission and expanded statement of purpose include several learning objectives that can and should be applied to every USD academic program. The most explicit student learning objective in the university mission statement is: "*preparing leaders dedicated to ethical conduct and compassionate service*." This statement sets an expectation for leadership abilities and dispositions of ethical conduct and compassionate service.

A third starting point for undergraduate degree programs is the general education program. All majors should incorporate advanced levels of learning in the basic competency areas that have defined learning outcomes in general education. Advanced information and communication skills in the context of the field of study are particularly good starting points. It is usually easier for program faculty to reach substantial agreement on these expectations than on many others. There are lots of examples, and standards and criteria for evaluating performance, in the assessment literature and on institutional websites.

Getting Started

In writing program-level student learning objectives, it helps to phrase them at a program-level rather than in terms of a specific course. For example, you may write out a fill-in-the-blank form for yourself like this:

"A student completing a _____ degree in _____ at USD is expected to …."

For example, "a student completing a B.A. degree in Psychology at USD is expected to …"

A good program-level learning objective will be specific and measurable, but still general enough to allow the possibility that students can demonstrate their knowledge, ability, or disposition on

multiple occasions and in multiple circumstances. A learning objective that is so narrowly defined that it can only be demonstrated in one particular course or with one particular test or at one particular time is inherently weak as a measure, difficult to accommodate logistically, and unduly stressful for students.

A good program-level learning objective will be one for which it is possible to distinguish levels of achievement or development, and for which it is reasonable to expect change over a one to two year period of study. Ideally, the learning objective would permit distinguishing levels of achievement or development expected at entry and exit. Entry and exit must be identified relative to the program of course. Typically, the program for an undergraduate major is completed during the second two years of college, and "entry" to the major coincides with "exit" from the undergraduate general education program of a four-year college or the completion of an Associate degree or its equivalent at a two-year college. For a Master's program or a doctoral program, entry and exit coincide with program entry and exit.

The best grammatical form for a learning objective that completes the sentence stem given above is an action verb and the observable process or product of learning.

For example, "a student completing a B.A. degree in Psychology at USD is expected to use the concepts, language, and major theories of the discipline to account for psychological phenomena, and in particular to:

a. Describe behavior and mental processes empirically, including operational definitions
b. Identify antecedents and consequences of behavior and mental processes
c. Interpret behavior and mental processes at an appropriate level of complexity
d. Use theories to explain and predict behavior and mental processes
e. Integrate theoretical perspectives to produce comprehensive and multi-faceted explanations

This example of a knowledge outcome is from a report on undergraduate psychology major learning goals and outcomes developed by a Task Force on Undergraduate Psychology Major Competencies appointed by the American Psychological Association's Board of Educational Affairs. You might want to find out if your discipline or professional association has developed recommended outcomes for your major.

For particular action verbs representative of particular levels of knowledge, or cognitive, learning objectives, we recommend Anderson & Krathwohl's (2002) revision of Bloom's Taxonomy (1956). The revised taxonomy identifies two dimensions, a cognitive process dimension (Bloom's original dimension) and a second dimension for four types of knowledge. The cognitive process dimensions, from surface to deep, are: remember, understand, apply, analyze, evaluate, create. The four types of knowledge are: factual, conceptual, procedural, and metacognitive. A table of knowledge dimensions with subtypes, and cognitive process dimensions, is included at the end of this document.

For most general ability domains, such as information, technology, and communication fluency, examples of written outcome statements and general standards and criteria for evaluation are readily available from cognate professional associations, general assessment literature, and on institutional websites.

Disposition outcomes are, generally speaking, the most difficult to get agreement on, and the most difficult to write and to assess. They also tend to be what we think are the most valuable learning outcomes. We recommend starting with knowledge and ability outcomes, but if you really want to start with an important disposition outcome, the Office of Assessment will be more than happy to work with the program faculty to do so.

Cognitive Process Dimension

Knowledge Dimension	***Remember*** Recognizing Recalling	***Understand*** Interpreting Exemplifying Classifying Summarizing Inferring Comparing Explaining	***Apply*** Executing Implementing	***Analyze*** Differentiating Organizing Attributing	***Evaluate*** Checking Critiquing	***Create*** Generating Planning Producing
Factual Knowledge Terminology, Specific Details and Elements						
Conceptual Knowledge Classifications and categories, Principles and generalizations, Theories, models and structures						
Procedural Knowledge Subject-specific skills and algorithms, Subject-specific techniques and methods, Criteria for determining when to use appropriate techniques						
Metacognitive Knowledge Strategic, Cognitive tasks including appropriate contextual and conditional knowledge, Self-knowledge						

Adapted from: Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: an overview. *Theory Into Practice,* Vol. 41, No. 4 pp. 212-218.