

Writing Student Learning Outcomes

Outcomes: Detailed, specific, measurable or identifiable, and personally meaningful statements that are derived from the goals and articulate what the end result of a unit, program, course, activity, or process is.

Outcomes should be:

- Measurable (not necessarily, countable), or observable,
- Manageable, and
- Meaningful.

Learning Outcomes: An easily identified action that a student is expected to demonstrate in terms of knowledge, skills, and attitudes upon completion of a program/course.

Note: When writing learning outcomes, focus on the end result of your teaching. How will you know that the students have learned what you want them to learn? What does it look like? How will you identify it? Use simple, specific action verbs to describe what the students are expected to demonstrate upon completion of a program. Examples include:

Students will be able to <action verbs to describe knowledge, skills, or attitude>...

ACTION VERBS

Concrete verbs such as “define,” “apply,” or “analyze” are more helpful for assessment than verbs such as “be exposed to,” “understand,” “know,” “be familiar with.”

Cognitive Learning

Knowledge - to recall or remember facts without necessarily understanding them

Comprehension – to understand and interpret learned information

Application – to put ideas and concepts to work in solving problems

Analysis – to break information into its components to see interrelationships

Synthesis – to use creativity to compose and design something original

Evaluation – to judge the value of information based on established criteria

Examples of Action Verbs:

articulate, define, indicate, name, order, recognize, relate, recall, reproduce, list, tell, describe, identify, show, label, tabulate, quote

classify, describe, discuss, explain, express, interpret, contrast, associate, differentiate, extend, translate, review, suggest, restate

apply, compute, give examples, investigate, experiment, solve, choose, predict, translate, employ, operate, practice, schedule

analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, distinguish, examine, investigate, interpret

arrange, assemble, collect, compose, construct, create, design, formulate, manage, organize, plan, prepare, propose, set up

appraise, assess, defend, judge, predict, rate, support, evaluate, recommend, convince, conclude, compare, summarize

appreciate, accept, attempt, challenge, defend, dispute, join, judge, praise, question, share, support

Affective Learning

Adapted from: Bloom, B.S. (Ed.) (1956) *Taxonomy of educational objectives: The classification of educational goals: Handbook I, cognitive domain*. New York; Toronto: Longmans, Green.

Examples of learning outcomes:

Graduates will be able to *collect* and *organize* appropriate clinical data, *apply* principles of evidence-based medicine to determine clinical diagnoses, and *formulate* and *implement* acceptable treatment modalities

Graduates will be able to *identify* various aspects of architectural diversity in their design projects

Graduates will be able to critically *analyze* and *evaluate* current research

Adapted from: Bresciani, M.J., Zelna, C.L., and Anderson, J.A. (2002). *Assessing student learning and development: A handbook for practitioners*. NASPA. Washington, D.C.