SLO Action Verbs

Action verbs are abundant in the English language, but how to do we know which ones are right to include in our Student Learning Outcomes?

Benjamin Bloom, an American educational psychologist, created what is now known as "Bloom's Taxonomy" and this taxonomy is frequently used to assist faculty in creating SLOs that properly address student learning. Bloom's taxonomy is a taxonomy of learning behaviors and is organized into three domains: the cognitive (i.e., knowledge/mental skills), the affective (i.e., emotional skills), and the psychomotor (i.e., physical skills). While the cognitive domain is the most well-known of the three domains, the affective and psychomotor domains also contain important learning behaviors identified by Bloom (Bloom, 1956; Krathwohl, Bloom, & Masia, 1965).

Revisions to the taxonomy structure have been made since Bloom's original work and currently, each level of learning in each domain contains action verbs to describe that type and level of learning (Anderson & Krathwohl, 2001; Krathwohl, 2002).

The categories below and the actions verbs that are related to each category should assist you in choosing the appropriate action verbs for your course and program SLOs. Choose an action verb from one of the three domains for each of your SLOs. All of your SLO action verbs should not come from one domain or from one category of Bloom's Taxonomy.

Cognitive Domain: Definitions and Action Verbs

The cognitive domain involves knowledge and the development of intellectual skills (Bloom, 1956).

This table includes information from the revised cognitive domain, <u>beginning with the lowest level of learning and ending with the highest.</u> The categories can be thought of as degrees of difficulty.

Category and Definition	Action Verbs for SLOs
<u>Remembering</u>: The learner is able to recall, restate, and remember learned information.	define, describe, enumerate, group, identify indicate, label, list, listen, locate, match, memorize, name, quote, recall, recite, recognize, record, reproduce, review, select, sort, state
<u>Understanding:</u> The learner is able to comprehend meaning and interpret instructions and problems.	annotate, associate, classify, characterize, cite, comprehend, convert, describe, discuss, estimate, explain, express, extrapolate, identify, interpret, observe, paraphrase, predict, restate, review, rewrite, summarize
<u>Applying:</u> (critical thinking) The learner is able to use a concept in a new situation.	adapt, apply, capture, calculate, change, complete, compute, construct, derive, demonstrate, deliver, diagram, dramatize, generalize, illustrate, interpret, justify, manipulate, operate, organize, produce, provide, show, solve, translate, use, utilize
<u>Analyzing:</u> (critical thinking) The learner is able to break information into its component parts to best its organizational structure.	analyze, arrange, audit, calculate, categorize, compare, conclude, contrast, correlate, diagnose, diagram, differentiate, discriminate, dissect, distinguish, examine, experiment, infer, order, outline, prioritize, relate, scrutinize, separate, summarize, test
<u>Evaluating:</u> (critical thinking) The learner is able to make decisions based on in-depth reflection, criticism, and assessment.	appraise, argue, assess, choose, compare, conclude, contrast, criticize, critique, debate, deduce, defend, determine, differentiate, discriminate, evaluate, judge, justify, predict, prioritize, prove, rate, recommend, revise, select, support, synthesize, validate, verify
<u>Creating:</u> (critical thinking) The learner is able to create new ideas or bring new meaning to information using what has previously been learned.	act, adapt, assemble, build, code, compile, combine, compose, construct, create, cultivate, design, develop, formulate, generate, hypothesize, integrate, invent, model, organize, originate, plan, prepare, propose, produce, theorize, write

**PSLOs must begin with verbs at this level or higher.

The Affective Domain: Definitions and Action Verbs

The categories in the affective domain relate to learners' attitudes, behaviors and values. Like the cognitive domain, the affective domain has hierarchal categories. As a learner moves up in the categories, they become more involved, committed and self-reliant. In the lower levels, learners are considered externally motivated and in the higher ones they are internally motivated.

The information in this table begins with the lowest level of affective learning and ends with the highest level (Bloomsburg, 2011).

Category and Definition	Action Verbs for SLOs
Receiving: (awareness; external motivation) The learner is willing and open to listening to certain stimuli or phenomena.	accept, acknowledge, ask, describe, explain, follow, focus, listen, observe, receive, recognize, reply, retain
Responding: (react; external motivation) The learner actively participates and attends or reacts to particular phenomena; they may be doing so because they are required or expected to participate, respond, or obey when asked or directed to do something.	aid, clarify, comply, contribute, cooperate, discuss, examine, follow, interpret, model, perform, present, question, react, read, respond, show
Valuing: (comprehend and act; external motivation) The learner places value on a specific object, phenomenon, or behavior. Valuing is based on the internalization of a set of specific values and the learner expresses these values in his/her overt behavior.	accept, adapt, choose, complete, demonstrate, differentiate, explain, initiate, invite, join, justify, prefer, propose, recognize, select, value, work
Organizing: (personal value system; internal motivation) The learner organizes his/her values, prioritizes some over others, reorganizes internal conflicts between them, and creates a unique value system. The learner then can make appropriate choices between things that are and are not valued.	adapt, adhere, adjust, alter, arrange, change, compare, complete, contrast, defend, develop, formulate, improve, manipulate, modify, practice, prioritize, reconcile, revise
Internalizing: (adopt behavior; internal motivation) The learner displays behaviors that are consistent with the learner's value system. The resulting behaviors are consistent, predictable, and represent the characteristics of the learner. These behaviors could be categorized into social, emotional, and personal patterns of learner adjustment.	act, authenticate, characterize, defend, display, embody, influence, produce, propose, qualify, question, solve, validate, verify

**PSLOs must begin with verbs at this level or higher.

The Psychomotor Domain: Definitions and Action Verbs

The categories in the psychomotor domain relate to the development of physical skills and manual tasks. These skills demand certain levels of physical dexterity. Unfortunately, Bloom never published his manuscript on the psychomotor domain. Several scholars have published works with hierarchal categories for the psychomotor domain. For the purposes of student learning outcomes, the psychomotor taxonomy created by Simpson in 1972 will be explained here (Bloomsburg, 2011).

The information in this table begins with the lowest level of psychomotor skills and ends with the highest level.

**PSLOs must begin with verbs at this level or higher.

Category and Definition	Action Verbs for SLOs
Perception: The learner uses his/her senses to absorb data for guiding movement.	describe, detect, differentiate, distinguish, hear, identify, recognize, select
Set: The learner is to act. This could be considered a person's mental, physical, and emotional mindsets.	arrange, begin, display, explain, move, proceed, react, show, state, volunteer
Guided Response: The learner uses trial and error. This is the early stage of learning a complex skill.	copy, trace, follow, react, reproduce, respond
Mechanism: The learner's responses are now habitual and movements can be performed with basic proficiency. This is the intermediate stage of learning a complex skill.	assemble, calibrate, construct, dismantle, display, fasten, fix, manipulate, measure, mend, mix, organize, sketch
Complex Overt Response: The learner performs motor acts that involve complex patterns that are quick, accurate, and highly coordinated. The learner performs without hesitation. This is the expert stage of learning a complex skill.	assemble, calibrate, construct, dismantle, display, fasten, fix, manipulate, measure, mend, mix, organize, sketch *Note: These are the same action verbs as in the mechanism stage, but here an adverb or adjective should be placed before the verb to indicate performance is quicker/more accurate.*
Adaptation: The learner's skills are well developed and the learner can modify movement to fit special requirements.	adapt, alter, change, rearrange, reorganize, revise, solve
Origination: The learner creates new movement patterns to fit a particular problem or situation. The learner has highly developed skills.	arrange, build, combine, compose, construct, create, design, initiate, make, modify, originate

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References

Bloom, B. S. (Ed.). Englehart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: Handbook I: Cognitive domain.* New York, NY: David McKay.

Bloomsburg Univeristy. (2011). *Outcomes assessment essentials: Articulate goals, objectives, and outcomes.* Retrieved from http://orgs.bloomu.edu/tale/documents/OAE1_ArticulateGoals_.pdf

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice, 41*(4), 212-218.

Krathwohl, D.R., Bloom, B. S., & Masia, B. B. (1964). *Taxonomy of educational objectives: The classification of educational goals. Handbook II: The affective domain.* New York, NY: David McKay.