

Guidelines for Well-written Student Learning Outcomes (SLOs)

1. Student Learning Outcomes Defined*

- Express what the student will be able to do with the *essential* knowledge, skills, and dispositions gained by the end of a course (or lesson or academic program)
- Focus on the *product (performance)* rather than the *process*
- Are *measurable* (i.e., identifiable or observable)
- Are *detailed* and *specific* –explicitly stated
- Include appropriate *action verbs* such as define, compare, create, design, etc. (Bloom’s Taxonomy)

FYI: If a student learning outcome is *essential*, it should be assessed.

*Modified from: University of South Carolina. (2010). *A faculty and staff guide to creating learning outcomes*. Columbia, SC: National Resource Center for The First-Year Experience & Students in Transition.

2. Components of Student Learning Outcomes

Well-written SLOs include 4 components (ABCCs):

- *A = Actor* (implies students –“The student will be able to...”) This component of the SLO is often referred to as the “stem”.
- *B = Behavior* (the performance/what the student will be able *to do*) Use an action verb from Bloom’s Taxonomy.
- *C = Conditions* (context, setting and/or conditions under which the behavior will occur) Provides specific details.
- *C = Criterion/criteria* (defines the *minimum acceptable level* of performance) The focus is on the expected “quality of performance”. The criterion/criteria can be specific or qualitative (using generic quality indicators of performance such as, critically, accurately, appropriately, concisely, etc.).

3. Bloom’s Taxonomy of Educational Objectives

Use of action verbs from Bloom’s Taxonomy help to ensure that a student learning outcome is measurable. Bloom’s Taxonomy is a hierarchical design of ways of thinking (action or performance verbs) that classifies learning or cognition into six levels; categorized from less to more complex.

- Level 1 – Knowledge
- Level 2 – Understand
- Level 3 – Apply
- Level 4 – Analyze
- Level 5 – Evaluate
- Level 6 – Create

The hierarchical structure indicates that action verbs found at lower levels of the taxonomy are inferred at the higher levels. Consider the following SLO: *Clearly comprehend and apply early childhood theories*. The action verb “comprehend” denotes to understand (Bloom’s Level 2), while “apply” is a Level 3 action verb. Therefore, it is inferred that if one can “apply” the theories that one “comprehends” them. In this example, the SLO could be restated as follows: *Clearly apply early childhood theories*.

In general, one would expect 3000 and 4000-level courses to include action verbs derived from the more complex levels of Bloom’s Taxonomy (Levels 4-6). Graduate level courses would typically include action verbs from the highest levels of Bloom’s Taxonomy. *Bloom’s Taxonomy can page found on page 3.*

4. Rules of Thumb – Action Verb Selection

- Avoid use of verbs such as, “know”, “recognize”, “value”, “demonstrate”, “appreciate”, etc. unless you describe student performance actions that will indicate their knowledge, recognition, value, and ability to demonstrate or appreciate.
- It’s best to keep SLOs simple by only using a single action verb per SLO.

5. Well-written Student Learning Outcomes Examples

- *Select* the most appropriate investigative methods or information retrieval systems for accessing needed information. (Level 1-Knowledge)
- Accurately *assess* the quantity, quality, and relevance of the search results to determine whether alternative information retrieval systems or investigative methods should be utilized. (Level 5-Evaluate)
- *Structure* a 3 to 5-page essay around a thesis, maintaining unity and coherence. (Level 6-Create)
- *Choose* appropriate interventions to manage patient fear, anxiety, and/or pain in a clinical setting. (Level 3-Apply)

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Selected Action Verbs from Bloom's Taxonomy					
Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Knowledge	Understand	Apply	Analyze	Evaluate	Create
define	associate	administer	advertise	appraise	adapt
describe	cite	apply	analyze	argue	assemble
enumerate	classify	articulate	appraise	assess	collaborate
examine	compare	calculate	break down	convince	combine
identify	contrast	change	categorize	critique	compile
label	convert	chart	classify	debate	compose
list	differentiate	choose	conclude	decide	create
locate	discuss	collect	connect	defend	design
match	distinguish	compute	correlate	editorialize	facilitate
omit	estimate	construct	criticize	evaluate	formulate
quote	explain	determine	deduce	judge	hypothesize
recall	express	develop	devise	find errors	imagine
record	extend	dramatize	diagram	justify	integrate
reproduce	generalize	employ	discriminate	persuade	intervene
select	give examples	establish	dissect	rank	invent
tabulate	group	experiment	divide	rate	manage
	illustrate	interpret	focus	recommend	negotiate
	indicate	manipulate	organize	reframe	originate
	infer	modify	outline	score	propose
	interpret	operate	plan	support	rearrange
	order	paint	point out	weigh	reorganize
	paraphrase	prepare	prioritize		revise
	predict	produce	question		schematize
	relate	simulate	separate		solve
	report	sketch	subdivide		speculate
	represent	solve	survey		structure
	research	transfer	test		substitute
	rewrite				validate
	summarize				
	trace				
	translate				