

Methods of Identifying Verbs for Student Learning Outcomes

Ryan Smith, Illinois State University, December 2017, <https://higheredevaluation.wordpress.com/>

Adelman Method: All Taxonomies

Table from Adelman, C. (2015, February). *To Imagine a Verb: The Language and Syntax of Learning Outcomes Statements*. Champaign, IL: National Institute for Learning Outcomes Assessment.

ACTIVITIES	VERBS
A) Verbs describing student acquisition and preparation of tools, materials, and texts of various types (including digital and archival)	access, acquire, collect, accumulate, extract, gather, locate, obtain, retrieve
B) Verbs indicating what students do to certify information, materials, texts, etc.	cite, document, record, reference, source
C) Verbs indicating the modes of student characterization of the objects of knowledge or materials of production, performance, exhibit	categorize, classify, define, describe, determine, frame, identify, prioritize, specify
D) Verbs describing what students do in processing data and allied information	calculate, determine, estimate, manipulate, measure, solve, test
D1) Verbs further describing the ways in which students format data, information, materials	arrange, assemble, collate, organize, sort
E) Verbs describing what students do in explaining a position, creation, set of observations, or a text	articulate, clarify, explicate, illustrate, interpret, outline, translate, elaborate, elucidate
F) Verbs falling under the cognitive activities we group under "analyze"	compare, contrast, differentiate, distinguish, formulate, map, match, equate
G) Verbs describing what students do when they "inquire"	examine, experiment, explore, hypothesize, investigate, research, test
H) Verbs describing what students do when they combine ideas, materials, observations	assimilate, consolidate, merge, connect, integrate, link, synthesize, summarize
I) Verbs that describe what students do in various forms of "making"	build, compose, construct, craft, create, design, develop, generate, model, shape, simulate
J) Verbs that describe the various ways in which students utilize the materials of learning	apply, carry out, conduct, demonstrate, employ, implement, perform, produce, use
K) Verbs that describe various executive functions students perform	operate, administer, control, coordinate, engage, lead, maintain, manage, navigate, optimize, plan
L) Verbs that describe forms of deliberative activity in which students engage	argue, challenge, debate, defend, justify, resolve, dispute, advocate, persuade
M) Verbs that indicate how students value objects, experiences, texts, productions, etc.	audit, appraise, assess, evaluate, judge, rank
N) Verbs that reference the types of communication in which we ask students to engage	report, edit, encode/decode, pantomime (v), map, display, draw/ diagram
O) Verbs, related to modes of communication, that indicate what students do in groups	collaborate, contribute, negotiate, feed back
P) Verbs that describe what students do in rethinking or reconstructing:	accommodate, adapt, adjust, improve, modify, refine, reflect, review

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Bloom's Taxonomy: Cognitive Domain

Category or 'level'	Behavior descriptions	Examples of activity to be trained, or demonstration and evidence to be measured	'Key words' (verbs which describe the activity to be trained or measured at each level)
1. Remembering	Recall or recognize information	Multiple-choice test, recount facts or statistics, recall a process, rules, definitions; quote law or procedure	Arrange, define, describe, label, list, memorize, recognize, relate, reproduce, select, state
2. Understanding	Understand meaning, re-state data in one's own words, interpret, extrapolate, translate	Explain or interpret meaning from a given scenario or statement, suggest treatment, reaction or solution to given problem, create examples or metaphors	Explain, reiterate, reword, critique, classify, summarize, illustrate, translate, review, report, discuss, re-write, estimate, interpret, theorize, paraphrase, reference, example
3. Applying	Use or apply knowledge, put theory into practice, use knowledge in response to real circumstances	Put a theory into practical effect, demonstrate, solve a problem, manage an activity	Use, apply, discover, manage, execute, solve, produce, implement, construct, change, prepare, conduct, perform, react, respond, role-play
4. Analyzing	Interpret elements, organizational principles, structure, construction, internal relationships; quality, reliability of individual components	Identify constituent parts and functions of a process or concept, or de-construct a methodology or process, making qualitative assessment of elements, relationships, values and effects; measure requirements or needs	Analyze, break down, catalogue, compare, quantify, measure, test, examine, experiment, relate, graph, diagram, plot, extrapolate, value, divide
5. Evaluating	Assess effectiveness of whole concepts, in relation to values, outputs, efficacy, viability; critical thinking, strategic comparison and review; judgment relating to external criteria	Review strategic options or plans in terms of efficacy, return on investment or cost-effectiveness, practicability; assess sustainability; perform a SWOT analysis in relation to alternatives; produce a financial justification for a proposition or venture, calculate the effects of a plan or strategy; perform a detailed risk analysis with recommendations and justifications	Review, justify, assess, present a case for, defend, report on, investigate, direct, appraise, argue, project-manage
6. Creating	Develop new unique structures, systems, models, approaches, ideas; creative thinking, operations	Develop plans or procedures, design solutions, integrate methods, resources, ideas, parts; create teams or new approaches, write protocols & contingencies	Develop, plan, build, create, design, organize, revise, formulate, propose, establish, assemble, integrate, re-arrange, modify

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Bloom, Krathwhol, & Masia's Taxonomy: Affective Domain

Category or 'level'	Behavior descriptions	Examples of experience, or demonstration and evidence to be measured	'Key words' (verbs which describe the activity to be trained or measured at each level)
1. Receiving	Open to experience, willing to hear	Listen to teacher or trainer, take interest in session or learning experience, take notes, turn up, make time for learning experience, participate passively	Ask, listen, focus, attend, take part, discuss, acknowledge, hear, be open to, retain, follow, concentrate, read, do, feel
2. Responding	React and participate actively	Participate actively in group discussion, active participation in activity, interest in outcomes, enthusiasm for action, question and probe ideas, suggest interpretation	React, respond, seek clarification, interpret, clarify, provide other references and examples, contribute, question, present, cite, become animated or excited, help team, write, perform
3. Valuing	Attach values and express personal opinions	Decide worth and relevance of ideas, experiences; accept or commit to particular stance or action	Argue, challenge, debate, refute, confront, justify, persuade, criticize
4. Organizing or Conceptualizing Values	Reconcile internal conflicts; develop value system	Qualify and quantify personal views, state personal position and reasons, state beliefs	Build, formulate, defend, modify, relate, prioritize, reconcile, contrast, arrange, compare
5. Internalizing Values	Adopt belief system and philosophy	Self-reliant; behave consistently with personal value set	Act, display, influence, solve, practice

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Dave's Psychomotor Taxonomy: Psychomotor or Behavioral Domain

Category or 'level'	Behavior descriptions	Examples of activity or demonstration and evidence to be measured	'Key words' (verbs which describe the activity to be trained or measured at each level)
1. Imitation	Copy action of another; observe and replicate	Watch teacher or trainer and repeat action, process or activity	Copy, follow, replicate, repeat, adhere, attempt, reproduce, organize, sketch, duplicate
2. Manipulation	Reproduce activity from instruction or memory	Carry out task from written or verbal instruction	Re-create, build, perform, execute, implement, acquire, conduct, operate
3. Precision	Execute skill reliably, independent of help, activity is quick, smooth, and accurate	Perform a task or activity with expertise and to high quality without assistance or instruction; able to demonstrate an activity to other learners	Demonstrate, complete, show, perfect, calibrate, control, achieve, accomplish, master, refine
4. Articulation	Adapt and integrate expertise to satisfy a new context or task	Relate and combine associated activities to develop methods to meet varying, novel requirements	Solve, adapt, combine, coordinate, revise, integrate, adapt, develop, formulate, modify, master
5. Naturalization	Instinctive, effortless, unconscious mastery of activity and related skills at strategic level	Define aim, approach and strategy for use of activities to meet strategic need	Construct, compose, create, design, specify, manage, invent, project-manage, originate