

Operational Verbs for Student Learning Outcomes

http://learningoutcomesassessment.org/documents/Occasional_Paper_24.pdf

This handout contains excerpts from the NILOA Occasional Paper #24.

- 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
- E. Verbs further describing the ways in which students format data, information, materials
 - arrange, assemble, collate, organize, sort
- F. 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
- G. Verbs falling under the cognitive activities we group under “analyze”
 - compare, contrast, differentiate, distinguish, formulate, map, match, equate
- H. Verbs describing what students do when they “inquire”
 - examine, experiment, explore, hypothesize, investigate, research, test
- I. Verbs describing what students do when they combine ideas, materials, observations
 - assimilate, consolidate, merge, connect, integrate, link, synthesize, summarize
- J. Verbs that describe what students do in various forms of “making”
 - build, compose, construct, craft, create, design, develop, generate, model, shape, simulate
- K. Verbs that describe the various ways in which students utilize the materials of learning
 - apply, carry out, conduct, demonstrate, employ, implement, perform, produce, use
- L. Verbs that describe various executive functions students perform
 - operate, administer, control, coordinate, engage, lead, maintain, manage, navigate, optimize, plan
- M. Verbs that describe forms of deliberative activity in which students engage
 - argue, challenge, debate, defend, justify, resolve, dispute, advocate, persuade
- N. Verbs that indicate how students value objects, experiences, texts, productions, etc.
 - audit, appraise, assess, evaluate, judge, rank
- O. Verbs that reference the types of communication in which we ask students to engage:
 - report, edit, encode/decode, pantomime (v), map, display, draw/ diagram
- P. Verbs, related to modes of communication, that indicate what students do in groups:
 - collaborate, contribute, negotiate, feed back
- Q. Verbs that describe what students do in rethinking or reconstructing
 - accommodate, adapt, adjust, improve, modify, refine, reflect review

Operational Verbs for Student Learning Outcomes

http://learningoutcomesassessment.org/documents/Occasional_Paper_24.pdf

Bloom's higher ordered thinking verbs (analyzing, evaluating, creating) are a combination of lower order verbs as explained in I, II, and III and the examples below. When writing student learning outcomes, use a **single** Blooms Taxonomy or Operational verb appropriate for the learning activity. If you currently have multiple verbs in your intended learning outcome, use the highest order verb.

- I. We prod students to locate and retrieve information or materials (Category A), record and cite what they have found (Category B), to arrange this material (Category E), and describe and classify what they have assembled (Category C).
- II. We challenge students to explicate and elaborate their positions on an issue (Category F), to distinguish and compare alternatives in the process (Category G), and to justify and defend their positions (Category M).
- III. We require students to explore phenomena and to offer hypotheses about why those phenomena behave in the manner observed (Category H), to measure the phenomena and test their hypotheses (Category D), and to synthesize their observations and measurements (Category H), presenting them to peers in a narrated visual display (Category O).

And we can gloss these, and other combinations of learning prod categories with elements of group production (Category P), presentation (Category O), model building (Category J), and evaluation (Category N). Voila! We have a set of reference points for writing clear benchmarks of performance! It is not the only set, but it offers constructive guidance missing in too many other de facto checklists.

Some examples:

- “ The student frames, clarifies, and evaluates...using...”
- “ The student elucidates...articulates...and illustrates...”
- “ The student describes...explains...and shows how...”
- “ The student designs and executes...and assesses...”
- “ The student identifies, categorizes, evaluates, and cites...so as to create...”
- “ The student frames...explores and evaluates...and presents...”
- “ The student analyzes...articulates...explains...”
- “ The student translates...constructs...presents...”
- “ The student identifies, chooses, and defends...”
- “ The student locates, gathers, and organizes...and offers...”
- “ The student negotiates...implements...communicates...”

Next, we turn to **exclusionary** principles:

Whether verbal or nominal, if you cannot say what it means in 6 words or less, it does not belong in a learning outcomes statement. Some examples:

- “the student will recognize the relevance of . . .”
- “the student will acquire understanding of. . .”
- “the student will become familiar with. . .”
- “the student will have a systematic approach to. . .”
- “the student will function effectively in . . .”

None of these is a learning outcome, let alone one the writer could try to explain in transparent terms in less than a paragraph. Try it, for example, in the case of “become familiar with.” What does the student actually do to demonstrate that he/she is “familiar” with something? One cannot say, for example, that a student “demonstrates advanced understanding” and assume that the student (let alone others) knows what “advanced understanding” means. Is the student's failure to meet this achievement a case of “not-so-advanced understanding”? And what does that mean? There are too many missing referents in such language.

Non-operational verbs. Some of these have been marked previously, but it never hurts to repeat: these verbs do not produce observable behaviors or objects: recognize, develop, relate, consider, prepare, comply, reflect, realize, anticipate, foresee, observe, review, extend, work