

National Institute for Learning Outcomes Assessment

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To Imagine a Verb: The Language and Syntax of Learning Outcomes Statements

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Part IV: Productive Active, Operational Verb Groups

Writing verb-driven outcome statements requires an expanded vocabulary, along with a typology matched to the cognitive activities at issue. The extant literature addressing this requirement tends to default to Bloom's six-stage taxonomy (Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation) for typological form, then places sometimes formless lumps of verbs under each stage. I advocate a different approach. With some expansion from their original appearance (Adelman, 2014a), I recommend serious consideration of the following operational verbs, grouped according to their governing functions. This is by no means an exhaustive list, and by no means would I suggest that a verb found in Group M cannot also be invoked in Group J. In a way, the writing of learning outcome statements works backwards from assignments and prods that faculty present every day. Think of what you are asking students to do, referencing one or more of the 20 categories of operational verbs below, then, in constructing the outcome statements, pick from the verbs presented (or others that you deem roughly synonymous and operational). Those steps will bring writers a long way toward what students will recognize and understand (ironically, two verbs one does not use in such statements).

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 (v)

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

I am far more governed by the methodologies and categories of Natural Language processing. So if other analysts wind up with six groupings of operational verbs, parralleling Bloom, I posit 20.

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

In a way, the writing of learning outcome statements works backwards from assignments and prods that faculty present every day.

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

Certainly there could be more than 20 categories; certainly many of the verbs apply in more than one category; and certainly there are many other examples under each. Finally, and mostly importantly, these operational verbs do not stand alone in learning outcome statements. Without the nouns, the intuitions of complete statements, the student has little idea of the object(s) of his/her activity.

But there is a very practical purpose in offering these categories for, particularly in combination, they fit so much of what faculty expect students to do in demonstrating learning. For obvious examples:

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 D1), and describe and classify what they have assembled (Category C).

We challenge students to explicate and elaborate their positions on an issue (Category E), to distinguish and compare alternatives in the process (Category F), and to justify and defend their positions (Category L).

We require students to explore phenomena and to offer hypotheses about why those phenomena behave in the manner observed (Category G), 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 N).

And we can gloss these, and other combinations of learning prod categories with elements of group production (Category O), presentation (Category N), model building (Category I), and evaluation (Category M). 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.

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