Learning Outcomes
Construction Guide (3 of 3)

Overview

Having an organized set of outcomes helps teachers to:

1. "plan and deliver **appropriate instruction**";
2. "design **valid assessment** tasks and strategies" and
3. "ensure that **instruction and assessment are aligned**" with the outcomes.

Learning outcomes are commonly categorized into the general characteristics of learning such as:

- Knowledge & Understanding
- Cognitive & Intellectual Skills
- Key / Transferable Skills
- Practical / Subject Skills

It generally is recommended that a 20 credit module (11 weeks) has between 3 and 7 learning outcomes.

I've demonstrated understanding, so why have I only achieved 40%?

Part One: Action Verb

The first portion of a module learning outcome is the verb indicating what a learner is expected to be able to do. Benjamin Bloom (1956) published a classification exploring learning behaviours. As part of his framework he developed a number of "measurable verbs" that have been subsequently added to that are useful place to start when composing learning outcomes for modules.

It is important that **you avoid** the use of word and phrases such as:

> understand, know, be aware of..., appreciate, become familiar with..., interest in..., feeling for...

These and many other verbs and phrases are **not observable, measurable** or **universally understood**.

Gronlund (1991) and others provides lists of measurable and observable terms (for the Cognitive Domain) that can be used in module learning outcomes which are based on Bloom's taxonomy. Verbs for the Affective and Psychomotor domains are also available.

Part Two: Object ('What'?)

The second part of any good module learning outcome details the all-important 'what' - a phrase that indicates on what or with what the learner is acting.

- ...a constructively aligned approach to programme and module design...
- ...bonding schemes...
- ...common lawyer...
- ...the relationship...
- ...some simple search algorithms...
- ...as a member of a project team to...

Part Three: Nature, Context or Standard

Lastly a module learning outcome should finish with a phrase that indicates the nature (context or standard) of performance required. Attach the "nature" phrase to parts one and two of your outcome with some connecting words or phrases, eg.

- ...using Eurocode
- ...informed by the 6 UoB reference points
- ...to the analysis of a range of spoken and/or written texts
- ...to a standard commensurate with Level I
- ...in improved golf performance
- ...made by the body in response to exercise
- ...to simple organic molecules
- ...then use them to represent an arbitrary function as a Fourier series

Cognitive Domain Active Verbs

Remembering
Define, describe, identify, label, list, match, name, outline, reproduce, select, state, recall, record, recognise, repeat, draw on, or recount.

Understanding
Convert, defend, distinguish, estimate, explain, extend, generalise, give examples, infer, paraphrase, predict, rewrite, summarise, clarify, restate, locate, recognise, express, review, or discuss, locate, report, express, identify, describe how, infer, illustrate, interpret, draw, represent, differentiate.

Applying
Apply, change, compute, calculate, demonstrate, discover, manipulate, modify, operate, predict, prepare, produce, relate, show, solve, use, schedule, employ, sketch, intervene, practise, or illustrate.

Analysing
Analyse, break down, make a diagram, classify, contrast, categorise, differentiate, discriminate, distinguish, appraise, test, inspect, illustrate, infer, outline, relate, select, survey, investigate, make an inventory, calculate, question, contrast, debate, compare, or criticise.

Evaluating
Appraise, assess, argue, compare, conclude, contrast, criticise, discriminate, judge, evaluate, choose, rate, revise, select, estimate, measure, justify, interpret, relate, value, measure the extent, validate, summarise.

Creating
Compose, design, plan, assemble, prepare, construct, propose, formulate, set up, predict, deriver, elaborate, invent, develop, devise, rearrange, summarise, tell, revise, rewrite, write, modify, organise, produce, or synthesise.

Affective Domain Active Verbs

This domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes.

Receiving phenomena
asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses.

Responding to phenomena
answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes.

Valuing
completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works.

Organisation of Values into Priorities
adheres, alters, arranges, combines, compares, completes, defends, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.

Internalizing values (characterization)
acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies.

References

Anderson, L. W. and D. R. Krathwohl, Eds. (2001) A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives, New York: London Longman.

Bloom, B (1956) Taxonomy of Educational Objectives: The Classification of Educational Goals, New York: David McKay Co.

Clark, D (unknown) Bloom's Taxonomy: Affective Domain, [Online] https://warwick.ac.uk/fac/soc/ces/news/mathematicsresilience/proceedings/bloomaffect_taxonomy.pdf

Gronlund, N.E. (1991) How to Write and Use Instructional Objectives. New York: Macmillan Publishing Co.

Further Reading

Baume, D (2009) Writing and using good learning outcomes, Leeds: Leeds Metropolitan University. [Online] http://eprints.leedsbeckett.ac.uk/2837/1/Learning_Outcomes.pdf