

Writing Learning Outcomes

What are learning outcomes?

Learning outcomes are statements that specify what learners will know or be able to do as a result of a learning activity. Outcomes are usually expressed as knowledge, skills, attitudes or behaviors

Learning outcomes should flow from a needs assessment. The needs assessment should determine the gap between an existing condition and a desired condition.

Learning outcomes are statements which described a desired condition – that is, the knowledge, skills, or attitudes needed to fulfill the need. They represent the solution to the identified need or issue. Learning outcomes provide direction in the planning of a learning activity. They help to:

- Focus on learner's behavior that is to be changed
- Serve as guidelines for content, instruction, and evaluation
- Identify specifically what should be learned
- Convey to learners exactly what is to be accomplished

What is an education need?

"An educational need is something individuals should learn for their own good, for the good of their organization or profession, or for the good of society." (Knowles, 1970) A need represents a gap between an individual's current level and some desired level of knowledge, skills, or attitudes.

What are some key questions that I should ask myself before writing learning outcomes?

- Does the students' level of awareness need to be raised? (Background knowledge)
- Do they need to understand better the context in which the content, problems issues etc. exists?
- Are there things students need to unlearn?
- What are the most essential things they need to know or be able to do?
- Do students need a strong rationale to buy into the content/issues of the course?
- What specific skills or strategies do they need to learn the material?
- How important is their level of confidence with this new learning?
- What are the obstacles they face in using/applying this new learning?
- What are the most important things they need to be able to do when they finish?

What are the characteristics of good learning outcomes?

Learning outcomes have three distinguishing characteristics.

1. The specified action by the learners must be observable.
2. The specified action by the learners must be measurable.
3. The specified action must be done by the learners.

The ultimate test when writing a learning outcome is whether or not the action taken by the participants can be assessed. If not, the outcome probably does not meet all three of the characteristics.

1. who is to perform;
2. what action they are to take;
3. some result that must come from their action.

How do you fix an unclear outcome?

Many program brochures include learning outcomes which are unclear or represent elements of curriculum rather than some action the participants will demonstrate. Note the following examples:

Participants will understand the nine reasons for conducting a needs assessment.

Participants will develop an appreciation of cultural diversity in the workplace.

If you ask a simple question ("Can it be measured?"), you see readily that these learning outcomes have shortcomings. They are not measurable. The same outcomes can be modified by changing the action verbs.

Participants will be able to recall in writing the nine reasons for conducting a needs assessment.

Participants will summarize in writing their feelings about cultural diversity in the workplace.

Learners now have a much better idea of what is expected of them.

What is the importance of action verbs?

Since the learner's performance should be observable and measurable, the verb chosen for each outcome statement should be an action verb which results in overt behavior that can be observed and measured.

Sample action verbs are:

compile, create, plan, revise, analyze, design, select, utilize, apply, demonstrate, prepare, use, compute, discuss, explain, predict assess, compare, rate, critique

Certain verbs are unclear and subject to different interpretations in terms of what action they are specifying. Such verbs call for covert behavior which cannot be observed or measured. These types of verbs should be avoided:

know, become aware of, appreciate, learn, understand, become familiar with
[1] Dubuque, Iowa: Kendall¹Phillips, Louis. *The Continuing Education Guide: the CEU and Other Professional Development Criteria.* /Hunt Publishing Co., 1994.

<http://www.aallnet.org/prodev/outcomes.asp>

Major Categories in the Taxonomy of Educational Objectives (Bloom 1956)

<http://faculty.washington.edu/krumme/guides/bloom.html>

List of action verbs used to write learning outcomes are given for each level of learning in **red**.

Categories in the Cognitive Domain: (with Outcome-Illustrating Verbs)

1. **Knowledge** of terminology; specific facts; ways and means of dealing with specifics (conventions, trends and sequences, classifications and categories, criteria, methodology); universals and abstractions in a field (principles and generalizations, theories and structures):
Knowledge is (here) defined as the remembering (recalling) of appropriate, previously learned information.
 - o defines; describes; enumerates; identifies; labels; lists; matches; names; reads; records; reproduces; selects; states; views.
2. **Comprehension**: Grasping (understanding) the meaning of informational materials.
 - o classifies; cites; converts; describes; discusses; estimates; explains; generalizes; gives examples; makes sense out of; paraphrases; restates (in own words); summarizes; traces; understands.
3. **Application**: The use of previously learned information in new and concrete situations to solve problems that have single or best answers.
 - o acts; administers; articulates; assesses; charts; collects; computes; constructs; contributes; controls; determines; develops; discovers; establishes; extends; implements; includes; informs; instructs; operationalizes; participates; predicts; prepares; preserves; produces; projects; provides; relates; reports; shows; solves; teaches; transfers; uses; utilizes.

4. **Analysis:** The breaking down of informational materials into their component parts, examining (and trying to understand the organizational structure of) such information to develop divergent conclusions by identifying motives or causes, making inferences, and/or finding evidence to support generalizations.
 - breaks down; correlates; diagrams; differentiates; discriminates; distinguishes; focuses; illustrates; infers; limits; outlines; points out; prioritizes; recognizes; separates; subdivides.
5. **Synthesis:** Creatively or divergently applying prior knowledge and skills to produce a new or original whole.
 - adapts; anticipates; categorizes; collaborates; combines; communicates; compares; compiles; composes; contrasts; creates; designs; devises; expresses; facilitates; formulates; generates; incorporates; individualizes; initiates; integrates; intervenes; models; modifies; negotiates; plans; progresses; rearranges; reconstructs; reinforces; reorganizes; revises; structures; substitutes; validates.
6. **Evaluation:** Judging the value of material based on personal values/opinions, resulting in an end product, with a given purpose, without real right or wrong answers.
 - appraises; compares & contrasts; concludes; criticizes; critiques; decides; defends; interprets; judges; justifies; reframes; supports.

Action Verbs

1. **Knowledge:** arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, reproduce and state.
2. **Comprehension:** classify, describe, discuss, explain, express, identify, indicate, locate, recognize, report, restate, review, select, translate,
3. **Application:** apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use, write.
4. **Analysis:** analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, and test.

5. ***Synthesis***: arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, and write.
6. ***Evaluation***: appraise, argue, assess, attach, choose compare, defend estimate, judge, predict, rate, core, select, support, value, evaluate.