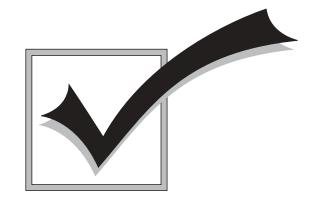
Writing Learning Outcomes



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This job aid is designed to help you to write learning outcomes for your courses.

After using this job aid, you should be able to:

define learning outcomes

define the categories (domains) of learning outcomes

identify the levels within these categories

describe the relationship between program goals and learning outcomes

discuss the preferred number of learning outcomes for a course

use the checklist to write better learning outcomes.



What are learning outcomes?

Learning outcomes specify what learners' new behaviours will be after a learning experience. They state the knowledge, skills, and attitudes that the students will gain through your course. Learning outcomes begin with an action verb and describe something observable or measurable.

Examples

At the end of this course you will be able to:

- 1. Use change theory to develop family-centred care within the context of nursing practice.
- 2. Design improved bias circuits using negative feedback.
- 3. Demonstrate the safe use of welding equipment.

Learning outcomes often represent discrete units of instruction in a course but each may have several sub-outcomes. Learning outcomes need not be attained by specific instruction in a lesson—they may be woven throughout the course. For example, they may include such things as use problem solving techniques or work effectively in teams.

Why are learning outcomes important?

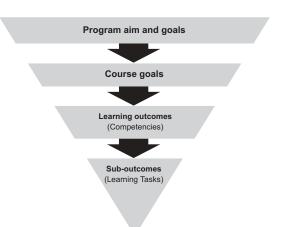
Learning outcomes are the most important section of your course outline—the essence of your course. They are essential because they:

- define the type and depth of learning students are expected to achieve
- provide an objective benchmark for formative, summative, and prior learning assessment
- clearly communicate expectations to learners
- clearly communicate graduates' skills to prospective employers*
- define coherent units of learning that can be further subdivided or modularized for classroom or for other delivery modes.
- guide and organize the instructor and the learner.

*By reading your listed learning outcomes, an employer or professional in the field should be able to identify what knowledge, skills, and attitudes your students will be able to offer them after taking your course.

How do learning outcomes fit into program goals?

Learning outcomes for a course should fit within the overall course and program goals. This chart shows how they relate.





How many learning outcomes should there be?

There should be as many outcomes as needed to clearly reflect what the students will gain from your course. Follow these rough guidelines when deciding how many you need:

- Each major topic in the course should have one to three learning outcomes.
- Each 45-hour or three-credit course should have between five and 12 learning outcomes.

When you are writing the outcomes, you will use only *one* action verb per outcome. For example, you would use *two* learning outcome statements for designing and testing a circuit:

- 1. Design improved bias circuits using negative feedback.
- 2. Test bias circuits using negative feedback.

Sub-outcomes

Each learning outcome may be made more explicit by using several sub-outcomes.

For example:

Learning Outcome 1: Study productively to meet learning goals.

Sub-outcome 1.1: Identify effective generic and personal study habits.

Sub-outcome 1.2: Describe self-motivation strategies.

Sub-outcome 1.3: Select appropriate study techniques to match your personal style and material.

Learning Outcome 2: Manage stress constructively.

Sub-outcome 2.1: Identify potential sources of stress.

Sub-outcome 2.2: Predict generic and personal stress patterns.

Sub-outcome 2.3: Select appropriate stress management techniques to prevent or control stress.

Sub-outcome 2.4: Create a personal stress management plan.

Learning Outcome 3: Install electrical wiring safely.

Sub-outcome 3.1: Identify relevant sections of the Canadian Electrical Code.

Sub-outcome 3.2: Describe electrical hazards.

Sub-outcome 3.3: Select appropriate tools and materials.

Sub-outcome 3.4: Identify safety rules about wiring on the job site.

Sub-outcome 3.5: Apply safety rules as you wire a circuit.



Classifying learning outcomes

When specifying learning outcomes, think about what you want students to be able to do on the job as a result of their learning. These things fall into three possible categories (domains):

- thinking, knowledge (cognitive domain)
- doing, skills (psychomotor domain)
- feeling, attitudes (affective domain)

Of course, some units of learning may occur in more than one domain at the same time.

Each of these categories has different possible levels of learning. These range from simple recall or observation to the complex evaluation or organization of information.

Choosing appropriate action verbs

The charts on pages 5 to 7 show samples of the action verbs you could use for learning outcomes in each of these categories and levels. Make sure that the verbs you choose match the level of learning you require. Notice that the action verbs listed represent measurable or observable behaviours.

Vague verbs such as know or understand are not easily measurable. Substitute, identify, define, describe, or demonstrate. Some subjective terms such as appreciate and be aware of may sometimes be used for outcomes in the affective domain.

As you construct your learning outcomes, use the checklist on the back of this job aid. It will remind you of all the important points about learning outcomes.

Write Learning Outcomes

Cognitive Domain

(thinking, knowledge)

Evaluation Definition: Judges the value of **Synthesis** material for a given purpose. Definition: Formulates new **Analysis** structures from existing Sample Verbs: knowledge and skills. Definition: assess conclude Understands both the **Application** evaluate content and structure of Sample Verbs: interpret material. Definition: combine · justify · construct Uses learning in new Comprehension select design and concrete situations support Sample Verbs: develop (higher level of Definition: analyze · generate understanding). Grasps the meaning of · categorize plan Knowledge material compare propose (lowest level of contrast Definition: Sample Verbs: understanding). differentiate Remembers apply discriminate · carry out previously learned outline demonstrate material. Sample Verbs: illustrate · describe prepare discuss Sample Verbs: solve explain • use • define locate · identify paraphrase label give example list translate name recall state

Aid

Instructional Job

Organization

Psychomotor Domain

(doing, skills)

Adaption Definition: Creates new **Complete Overt** patterns for specific Definition: situations. Response Adapts skill sets to meet a problem **Mechanism** situation. Definition: Sample Verbs: Performs designs Definition: **Guided Response** automatically. · originates Performs acts with Sample Verbs: combines increasina adapts Set Definition: · composes efficiency, reorganizes Sample Verbs: · constructs Imitates and confidence, and alters Definition: **Perception** practices skills. · act habitually proficiency. · revises Is mentally. often in discrete advance with changes emotionally, and steps. assurance Definition: physically ready to · control Sample Verbs: Senses cues that act. direct quide motor activity. complete with excel Sample Verbs: confidence auide copy conduct Sample Verbs: maintain efficiency duplicate Sample Verbs: demonstrate manage · achieve a posture imitate execute detect master assume a body manipulate with improve efficiency hear organize stance guidance increase speed listen perfect establish a body operate under observe make perform position supervision pace perceive automatically · place hands, arms, practice produce recognize proceed repeat show dexterity • see · position the body try sense • sit smell stand taste station view · watch



Write Learning Outcomes

Affective Domain

(feeling, attitudes)

Valuing

Definition:

Attaches value or worth to something.

Sample Verbs:

- adopt
- assume responsibility
- behave according to
- choose
- commit

express

initiate

prefer

seek

· exhibit loyalty

· show concern

show continual

· use resources to

desire to

- desire
- communicate

Sample Verbs:

answer freely

agree to

Responding

Responds to stimuli.

comply

assist

care for

Definition:

- conform
- consent
- contribute
- be aware cooperate listen
 - follow
- notice obev
- pay attention
- tolerate

Receiving

Selectively attends

Definition

to stimuli.

Sample Verbs:

acknowledge

accept

- participate willingly
- read voluntarily
- respond
- visit
- volunteer

Organization

Definition:

Conceptualizes the value and resolves conflict between it and other values.

Sample Verbs:

- adapt
- · adjust
- arrange
- balance
- · classify
- conceptualize
- formulate
- group
- organize
- rank
- · theorize

Internalizing

Definition:

Integrates the value into a value system that controls behavior.

Sample Verbs:

- act upon
- · advocate
- defend
- exemplify
- influence
- · justify behavior maintain
- serve
- support

Based on "Taxonomy of Educational Objectives", B.S. Bloom Editor. 1956

Checklist for writing learning outcomes

Use the following checklist to help you as you write learning outcomes.

When writing learning outcomes, I need to:	
1.	Focus on outcomes, not processes
2.	Start each outcome with an action verb.
3.	Use only one action verb per learning outcome
4.	Avoid vague verbs such as <i>know</i> and <i>understand</i>
5.	Check that the verbs used reflect the level of learning required □
6.	Ensure that outcomes are observable and measurable
7.	Write the outcomes in terms of what the learner does, not what the instructor does.
8.	Check that the outcomes reflect knowledge, skills, or attitudes required in the workplace. □
9.	Include outcomes that are woven into the entire course (such as work effectively in teams).
10.	Check that there are the appropriate number of outcomes (no more than three per major topic)□
11.	List the sub-outcomes for each outcome
12.	Check that the outcomes fit within program and course goals □