

# WRITING LEARNING OUTCOMES

This job aid explains the importance of learning outcomes and describes their connection with program goals. It defines the categories (domains) of learning outcomes and identifies the levels within these categories.

This job aid will help you to:

- write focused learning outcomes for your courses that reflect the knowledge, skills, or attitudes and the level of learning required
- ensure that your course has an appropriate number of 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:

*Use change theory to develop family-centred care within the context of nursing practice.*

or

*Design improved bias circuits using negative feedback.*

or

*Demonstrate the safe use of welding equipment.*

Learning outcomes often represent discrete units of instruction in a course but each may have several suboutcomes. 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*.

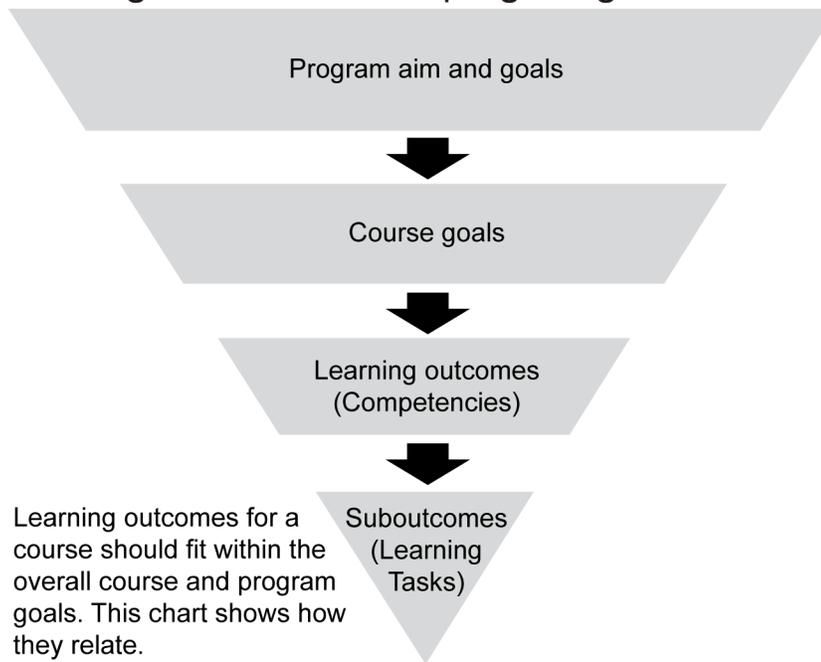
## Why are learning outcomes important?

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?



## 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.

### Suboutcomes

Each learning outcome may be made more explicit by using several suboutcomes. For example:

- |                     |  |
|---------------------|--|
| Learning Outcome 1: | Study productively to meet learning goals.                                     |
| Suboutcome 1.1:     | Identify effective generic and personal study habits.                          |
| Suboutcome 1.2:     | Describe self-motivation strategies.   |
| Suboutcome 1.3:     | Select appropriate study techniques to match your personal style and material. |

Learning Outcome 2:	Manage stress constructively.
Suboutcome 2.1:	Identify potential sources of stress.
Suboutcome 2.2:	Predict generic and personal stress patterns.
Suboutcome 2.3:	Select appropriate stress management techniques to prevent or control stress.
Suboutcome 2.4:	Create a personal stress management plan.
Learning Outcome 3:	Install electrical wiring safely.
Suboutcome 3.1:	Identify relevant sections of the Canadian Electrical Code.
Suboutcome 3.2:	Describe electrical hazards.
Suboutcome 3.3:	Select appropriate tools and materials.
Suboutcome 3.4:	Identify safety rules about wiring on the job site.
Suboutcome 3.5:	Apply safety rules as you wire a circuit.

## Classify 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. Units of learning 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

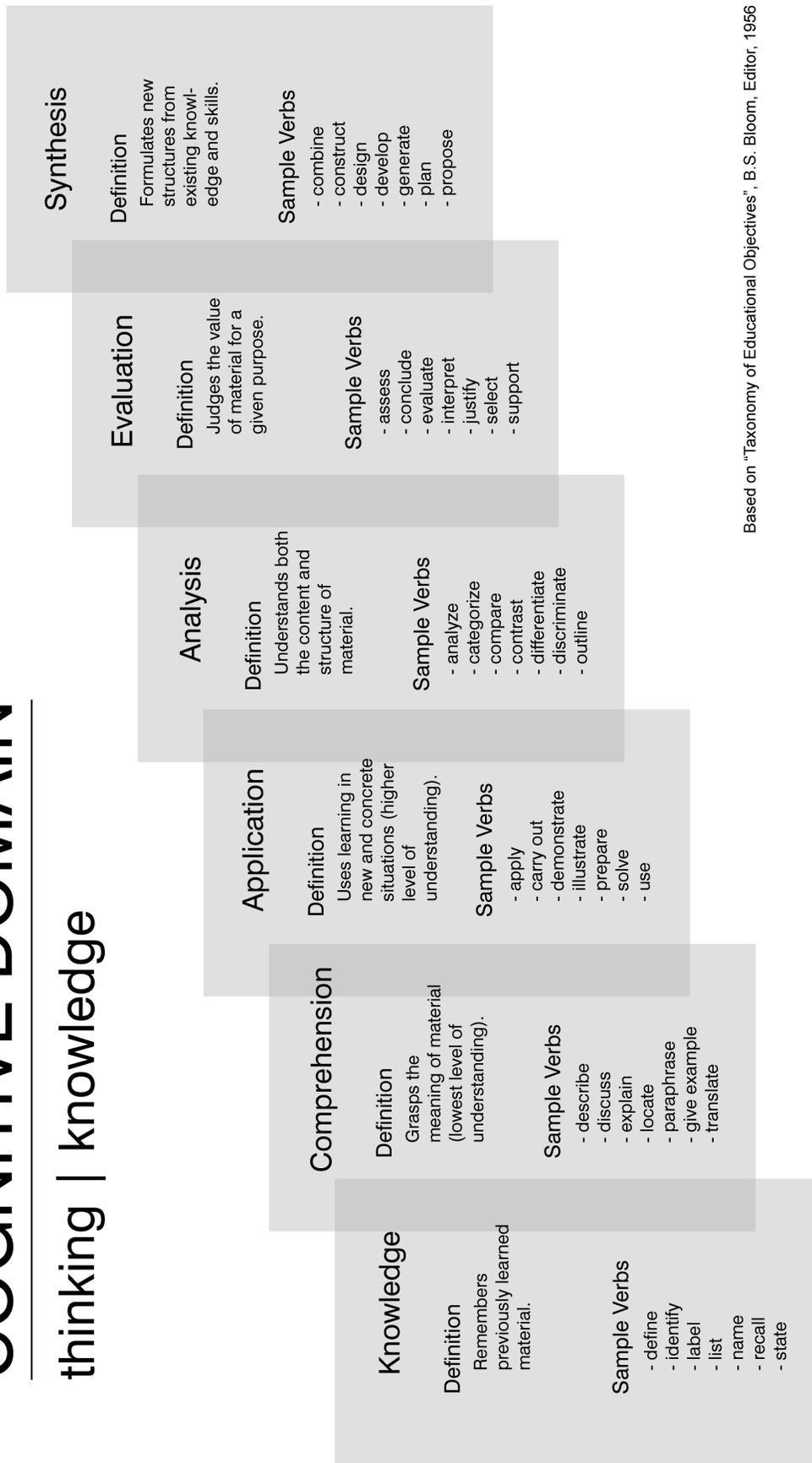
The charts on pages 5 to 7 show samples of the action verbs you could use for learning outcomes in each of these categories and levels. Make sure that the verbs you choose match the levels of learning you require. Notice that the action verbs listed represent measurable or observable behaviours.

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.

# COGNITIVE DOMAIN

thinking | knowledge



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

# PSYCHOMOTOR DOMAIN

doing | skills

## Perception

**Definition**  
Senses cues that guide motor activity.

### Sample Verbs

- detect
- hear
- listen
- observe
- perceive
- recognize
- see
- sense
- smell
- taste
- view
- watch

## Set

**Definition**  
Is mentally, emotionally, and physically ready to act.

### Sample Verbs

- achieve a posture
- assume a body stance
- establish a body position
- place hands, arms, etc.
- position the body
- sit
- stand
- station

## Guided Response

**Definition**  
Imitates and practices skills, often in discrete steps.

### Sample Verbs

- copy
- duplicate
- imitate
- manipulate with guidance
- operate under supervision
- practice
- repeat
- try

## Mechanism

**Definition**  
Performs acts with increasing efficiency, confidence, and proficiency.

### Sample Verbs

- complete with confidence
- conduct
- demonstrate
- execute
- improve efficiency
- increase speed
- make
- pace
- produce
- show dexterity

## Complete Overt Response

**Definition**  
Performs automatically.

### Sample Verbs

- act habitually
- advance with assurance
- control
- direct
- excel
- guide
- maintain efficiency
- manage
- master
- organize
- perfect
- perform automatically
- proceed

## Adaption

**Definition**  
Adapts skill sets to meet a problem situation.

### Sample Verbs

- adapt
- reorganize
- alter
- revise
- change

## Organization

**Definition**  
Creates new patterns for specific situations.

### Sample Verbs

- design
- originate
- combine
- compose
- construct

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

# AFFECTIVE DOMAIN

## feeling | attitudes

**Internalizing**

**Definition**  
Integrates the value into a value system that controls behaviour.

**Sample Verbs**

- act upon
- advocate
- defend
- exemplify
- influence
- justify behaviour
- maintain
- serve
- support

**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

**Valuing**

**Definition**  
Attaches value or worth to something.

**Sample Verbs**

- adopt
- assume responsibility
- behave according to
- choose
- commit
- desire
- exhibit loyalty
- express
- initiate
- prefer
- seek
- show concern
- show continual desire to
- use resources to

**Responding**

**Definition**  
Responds to stimuli.

**Sample Verbs**

- agree to
- answer freely
- assist
- care for
- communicate
- comply
- conform
- consent
- contribute
- cooperate
- follow
- obey
- participate willingly
- read voluntarily
- respond
- visit
- volunteer

**Receiving**

**Definition**  
Selectively attends to stimuli.

**Sample Verbs**

- accept
- acknowledge
- be aware
- listen
- notice
- pay attention
- tolerate

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 your learning outcomes.

*When writing learning outcomes, I need to:*

- Focus on outcomes, not processes
- Start each outcome with an action verb
- Use only one action verb per learning outcome
- Avoid vague verbs such as *know* and *understand*
- Check that the verbs used reflect the level of learning required
- Ensure that outcomes are observable and measurable
- Write the outcomes in terms of what the learner does, not what the instructor does
- Check that the outcomes reflect knowledge, skills, or attitudes required in the workplace
- Include outcomes that are woven into the entire course (such as *work effectively in teams*)
- Check that there are the appropriate number of outcomes (no more than three per major topic)
- List the suboutcomes for each outcome
- Check that the outcomes fit within program and course goals