Learning Outcomes

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Why write Learning Outcomes?

1. Set shared expectations between students and instructors.
2. Help students learn more effectively.
3. Provide clear direction for educators when making instruction and assessment decisions.
4. Provide a program level overview of learning across courses and years.
Develop/Revisit Program
Learning Outcomes

• Learning outcomes are direct statements that describe the knowledge, skills, and habits of mind that students are expected to reliably demonstrate after a learning experience.

• They describe learning that is significant and durable—learning that really matters in the long term.
A **cognitive apprenticeship** wherein one learns to think like a professional,

a **practical apprenticeship** where one learns to perform like a professional, and

a **moral apprenticeship** where one learns to think and act in a responsible and ethical manner that integrates across all three domains.

(Shulman, 2005, p. 3)
LEARNING OUTCOMES: A KNOWN DESTINATION

LEARNING OUTCOMES GIVE STUDENTS A DESTINATION TO REACH FOR, AN EXPECTATION TO ACHIEVE.

Do your students reach their destination? Did you tell them the destination before takeoff?

1. Create or Review the Learning Outcomes

2. Get the Students on Board with the Learning Outcomes

3. Practice Activities (aka Objectives) that get the Students to the Learning Outcomes

4. Students Demonstrate Learning Outcomes

Verbs for Learning Outcomes:
- analyze
- define
- duplicate
- duplicate
- name
- demonstrate/express
- summarize
- apply
- consolidate
- explore
design
- synthesize
- analyze
- describe
- compare
classify
- contrast
categorize
- integrate
- evaluate
- diagnose
- formulate
- critique
- interpret
- apply
Anatomy of a Learning Outcome

By the end of this program, successful students will be able to…

- Statement describing the **learning** that should be demonstrated by the end of this course/program

  - Choose an **action verb**
  
  - Statement providing **disciplinary context**
Notice that...

- Statements are about what students will do not what they will hear about:

  Not
  Students will learn about Mezirow’s theories of transformative learning

  But rather:

  Students will apply Mezirow’s theories of transformative learning in the process of making-meaning of their experience
Examples

**Cultural Studies** - Students will be able to apply interdisciplinary perspectives to examine ways in which culture is formed, practiced and constituted.

**Art History** - Students will interpret art works to establish a perspective on the subject matter and the meaning of their imagery (iconography).

**Drama** - Students will be able to examine both the structure of the modern "musical" and its production methodology.

**Environmental Studies** - Students will be able to effectively communicate perspectives on complex environmental challenges to both professional and lay audiences.

**Chemistry** - Student will be able to apply quantitative principles to effectively describe the nature of chemical reactions.
Verbs are important

• Verbs like *identify, define, follow, & list* connote memory-based learning

• Verbs like *evaluate, critique, create, & justify* connote more cognitively complex or deeper learning
Beware of vague verbs

- Understand
- Know
- Appreciate
- Gain knowledge of
- Be aware
- Cover
- Learn
- Realize
- Comprehend
- Become acquainted with

How can these be assessed?
Effective Learning Outcomes

- Are they concise, direct and clearly stated?
- Are they assessable?
- Are they meaningful? Will they really matter in the long run?
- Are they observable? Do they describe what learning looks like?
- Are they manageable?
- Are they balanced?
- What items are subset of others? What items can be grouped together because they speak to the same performance? Are critical elements missing?
- How well do they reflect the context of your course, your instructional activities, assessment strategies, and degree level expectations?
ICE Model

Articulate relationships and make connections
Apply, compare, contrast, classify, organize, categorize, distinguish, interpret, integrate, modify, rate, solve

Factual recall of basic information
Define, describe, explain, label, match, identify, list, locate, recognize

Predict outcomes in novel situations
Design, develop, diagnose, evaluate, extrapolate, judge, predict

(Wilson, 1999; Fostaty Young & Wilson, 2000)
The SOLO Taxonomy with sample verbs indicating levels of understanding

- Competence:
  - Identify
  - Name
  - Follow simple procedure

- Incompetence:
  - Fail
  - Incompetent
  - Misses point

- Incomprehension:
  - one relevant aspect
  - several relevant independent aspects
  - integrated into a structure
  - generalized to new domain

- Unistructural
- Multistructural
- Relational
- Extended Abstract

- Competencies:
  - Combine
  - Describe
  - Enumerate
  - Perform serial skills

  - Analyze
  - Apply
  - Argue
  - Compare/contrast
  - Criticize
  - Explain causes
  - Relate
  - Justify

- Advanced Competencies:
  - Create
  - Formulate
  - Generate
  - Hypothesize
  - Reflect
  - Theorize
Undergraduate and graduate degree level expectations

Essential, enduring and integrated disciplinary learning of academic program

Course-specific knowledge, skills, and habits of mind

Provincial DLEs

Program Learning Outcomes

Course Learning Outcomes

Application of knowledge

Students will be able to integrate concepts, methods, and perspectives from multiple disciplines and apply those to complex environmental issues

Employ systems concepts and interdisciplinary perspectives to explain principles of environmental sustainability
Degree Level Expectations

- Depth and breadth of knowledge
- Knowledge of methodologies (UDLE)/Research and Scholarship (DLE)
- Application of knowledge
- Communication skills
- Autonomy and professional capacity
- Awareness of limits of knowledge