

Introduction to Learning Outcomes

Learning outcomes are direct statements that describe the knowledge, skills, and attitudes that students are expected to reliably demonstrate in successfully completing a course.

- Learning Outcomes should be observable, assessable in some way, and both rigorous and flexible (rigorous in that they specify the complexity of learning expected and flexible in that the learning may be demonstrated in a variety of ways).

The Anatomy of a Learning Outcome

Learning Outcomes consist of three parts:

- **Do what?** (what cognitive or skill process will students demonstrate?)
- **With what?** (with what parts of the curriculum?)
- **For what?** (for what purpose? To accomplish what?)

Examples of Learning Outcomes

- Learners will **contrast** *the philosophies of John Locke and Thomas Hobbes* to interpret 17th Century thinking on civic governance.
- Students will **manipulate** *dynamics, articulation and tempo* to convey a variety of emotions.
- Learners will **apply** *Bayesian probability* to draw valid conclusions from complex data sets.
- Learners will **analyze** *a Kastle-Meyer test* to determine the presence of secondary substances.

The **bold black font** indicates the level of complexity at which students are expected to demonstrate their learning and therefore how they must engage with course material; the **red text** indicates the course content with which they must engage; and the **blue text** indicates the purpose for that engagement.

Notice that...

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

Not:

- Students **will learn about** Tversky and Kahneman's theories of cognitive bias

But rather:

- Students will **apply** Tversky and Kahneman's theories of cognitive bias to predict human decision-making behaviours.

- Verbs are important:

- Verbs like *identify, define, imitate, follow, and list* connote memory-based learning
- Verbs like *evaluate, justify, critique and create* connote more cognitively complex or deeper learning

Try to avoid using phrases like "students will understand..." or "students develop knowledge of..."; they are vague and open to a wide variety of interpretations. Ask yourself "How will I know it when I see it?"

Easiest way to get started? Free-Write

- **What should my students be able to do by the end of our time together?**
- **How well?**
- **What skills and attitudes will I want them to demonstrate?**

Once the free-write has been completed, review what you have written and determine the level of cognitive complexity that you're planning for (that is, will students be expected to demonstrate Ideas, Connections or Extensions?).