

Common Problems with Learning Outcomes¹

Certain problems with learning outcomes are quite common, so don't beat yourself up if you run into them.

The Sinister Sixteen - verbs that are passive, internal and/or otherwise unobservable

The most common verbs and phrases we see in learning outcomes are all unacceptable:

Understand	Be aware of
Appreciate	Be conscious of
Comprehend	Learn
Grasp	Perceive
Know	Value
See	Get
Accept	Apprehend
Have a knowledge of	Be familiar with

All of these are internal. In other words, they aren't public and can't be observed. You can never really know whether Barry understands the concept of derivatives, because you can't see into Barry's mind. All we have to go on are public behaviours that we are willing to accept as evidence that Barry probably understands. To some extent, we'll never be absolutely certain, but with careful thinking, teaching, and assessing, we can get close.

To avoid falling into traps set by the Sinister Sixteen (and their synonyms), stop and ask yourself these questions:

- 1. Is this outcome public and observable?**
 - If not, choose a different verb and repeat the question.
- 2. How will I, and the students, know when this outcome has been achieved?**
 - If it will result in confusion, choose a different verb and repeat the question.
- 3. What would I be willing to accept as evidence that this internal state has been reached?**
 - If you wouldn't be able to make a reliable inference, choose a different verb and repeat the question.
- 4. What sorts of behaviours or performances would I associate with someone who has reached this state?**
 - If these aren't evident in the outcome, choose a different verb and repeat the question.

¹ Course Design for Constructive Alignment (Winter 2012), Michael K. Potter and Erika Kustra, Centre for Teaching and Learning, University of Windsor. Sourced from: <http://www1.uwindsor.ca/ctl/system/files/PRIMER-on-Learning-Outcomes.pdf>

Common Problems with Learning Outcomes, continued

The Outcome Doesn't Follow from the Stem

Each learning outcome is just a **sentence completion** exercise, when you stop to think about it. The sentence begins with the stem and ends at the end of the outcome. If your stem is "On successful completion of this course, students will be able to . . ." and your outcome is "Anatomy and physiology of the human leg", well, that doesn't make sense, does it? It isn't a complete English sentence.

Now, if the outcome were rewritten as "Label the anatomical features of the human leg and explain their physiological interaction in the motion of walking" the sentence would work much better. Plus, it's now an observable outcome.

The Outcome Focuses on the Means, Rather than the Ends

Sometimes people get so involved in thinking through their course that they end up mixing their teaching and assessment methods into their outcomes. Remember, the outcomes specify what you want people to be able to do at the end of the course, not what they do in the course. The teaching methods and learning experiences help them get to that point, and the assessment methods tell you whether they've reached that point, but the outcomes are what the successful students leave your course having learned and demonstrated through those means. The outcome shouldn't mention your teaching and assessment methods at all.

The Outcomes are all Low-Level or High-Level

Your course should feature a mixture of low-level, mid-level and high-level outcomes. If they all require low-level ability and effort, the course is too easy and the students probably won't learn much. If they're all high-level, it's probably too challenging, and they may not be able to learn what they need to achieve all of those lofty outcomes. And if they're all mid-level, the course will probably be boring, although students might learn something.

Ideally, you'll have outcomes at each of these levels, and you will use achievement of the lower-level learning to help students develop to the point where they can achieve the mid-level learning outcomes, and then on to the high-level outcomes.

Consider our three example outcomes:

1. Explain the steps involved in at least two standard forms of historical research methodology.
2. Research and write articles using a standard form of historical research methodology that meets professional standards of style and format.
3. Defend at least two standard forms of historical research methodology with an appeal to the underlying scholarly values and attitudes of professional historians that they embody.

Common Problems with Learning Outcomes, continued

The Outcomes are all Low-Level or High-Level, continued

Explanation doesn't require much, cognitively, so it's a low-level outcome. But you probably need to understand the steps of these methodologies well enough to explain them before you can move on to more complex tasks, so it's a worthwhile outcome to include. Researching and writing the article builds on the knowledge expressed in the first outcome, but applies it toward the creation of something new. The application of the methodology is mid-level, and the creation of a new product is either mid or high-level, depending on the product and its requirements. Finally, effective defence requires argumentation skills which, in this context, will also require a deep knowledge of the rationale and values behind these methodologies, so that's a high-level outcome. But it, too, builds on the first and second outcomes.

Too Vague – Or Too Specific

It's more common for learning outcomes to be too vague than too specific. Saying that students will "demonstrate" something, for instance, doesn't usually provide much information – unless the outcome pertains to demonstration of a very obvious skill at a low level, such as "Demonstrate proper use of scissors to cut paper". Usually there's a much more informative active verb that you could use instead.

Aside from the fact that it's unobservable, another reason that "understand" is an inappropriate verb to use in learning outcomes is that it's incredibly vague. Virtually all teaching is intended to help students understand, and virtually all learning involves some sort of understanding (some of it quite trivial and banal, some complex and significant). So what kind of understanding are you looking for? How complex? What would you accept as evidence of the kind of understanding you expect students to achieve? Focus on those questions – on what are sometimes called "performances of understanding" (Biggs and Tang, 2009, p. 75) rather than mere "declarations of understanding" – and you can avoid vagueness.

On the other hand, you don't want your learning outcomes to be so specific (and thus inflexible) that they unnecessarily tie your hands when it comes to how you teach and assess. Nor do you want them to be so specific and narrow that they rule out any creativity or open-ended learning for your students. Writing, "Cut paper with Black and Decker #45 scissors at a 45-degree angle beginning at the lower-left corner" is probably far more specific than any situation will call for!

There's an art to this, because you need to walk a fine line between being specific enough that students understand what is required of them and you can use the outcome to guide your teaching and assessment decisions, yet open enough to allow for creativity and unexpected learning. You won't be able to predict or prescribe every bit of learning that could take place. Even if you could, would that really be a good idea?