

# Writing Good Learning Outcomes



## What are Learning Outcomes?

**Learning outcomes guide your course design.** They are the destinations on your course map. Once you know where you're going, the other questions, "How will I know when students got there?" and "What can I do to help them get there?" become much easier to answer. They are the formal statements describing what students are expected to learn in a course, whether for a classroom course or online. In short, they state where you want students to go (*how* they get there is the subject of later units). If you think of your course map as an actual map - **outcomes are your destinations.**

One of the major challenges of teaching online is that everything has to be more explicit than in a face-to-face course because the usual channels (your tone of voice, repeated vocal reminders, informal conversations before and after class) are absent. Online, **learning outcomes express your expectations to your students.** They are (hopefully) clear messages that help students know what you expect from them and what they should spend their time practicing and studying.

Learning outcomes focus on specific knowledge, skills, attitudes, and beliefs that you expect your students to learn, develop, or master (Suskie, 2004). They describe both what you want students to know AND be able to do at the end of the course. If you've not thought about learning outcomes from the perspective of what students should be able to know and do before, [Angelo and Cross' Teaching Goals Inventory](http://fm.iowa.uiowa.edu/fmi/xsl/tgi/data_entry.xsl?-db=tgi_data&-lay=Layout01&-view) ([http://fm.iowa.uiowa.edu/fmi/xsl/tgi/data\\_entry.xsl?-db=tgi\\_data&-lay=Layout01&-view](http://fm.iowa.uiowa.edu/fmi/xsl/tgi/data_entry.xsl?-db=tgi_data&-lay=Layout01&-view)) may be of help.

Learning outcomes need to specify student actions that are **observable** and **measurable**. That way they can be assessed in an objective manner. "Students will appreciate the beauty of impressionist paintings" isn't an effective learning outcome because it's not measurable. On the other hand, "students can identify impressionist paintings and accurately describe criteria for classifying paintings in the impressionist style" is a learning outcome because you can observe and measure the students *identifying impressionist paintings* and *describing criteria*.

In addition to being observable and measurable, learning outcome statements have to focus on **student action**. They are about students showing what they have learned, not about the instructor describing how they are teaching. For example, "The students can accurately describe the process of photosynthesis" is a learning outcome while "I will show a PowerPoint presentation on photosynthesis and give the students a quiz" is not.

Usage of the terms learning outcomes and learning objectives can vary considerably depending

on the author; however, for purposes of this course, you may consider them synonymous (for consistency, we will be using learning outcome to reinforce the importance of observable behaviors).



Students will accurately describe    
the Krebs Cycle

View this study set

Choose a Study Mode 

*Do the outcome statements in the Quizlet flashcard activity above meet these criteria? Click on the card for each outcome statement to check your answers. Click on the text of the card to have it read to you. For more information, see the [Quizlet website](https://quizlet.com/)*

*(<https://quizlet.com/>).  **NOTE:** The Quizlet tool is currently not accessible to assistive technology. If you choose to use it in your course please have an alternative activity in mind should it be needed.*



## How do I write good learning outcomes?

As you saw in the examples above, in their basic form, learning outcomes are typically structured as

**By the end of the course, students will be able to...[verb] + [object].**

The place where learning outcomes often fall short is the verb, **the action that students will do** to demonstrate their learning. Often instructors use "know" and "understand;" neither of which are directly observable or measurable. Instead, consider verbs that can *measure* knowledge and understanding. For example, will students *write*, *identify*, or *analyze* something? Is it enough for students to be able to *list* the steps in the Krebs cycle or should they be able to *describe* the steps of the Krebs cycle? The decisions you make now have a significant impact throughout the rest of the course design process, so it's worthwhile to wrestle with the language to find the best verb to indicate what level of knowledge

or skills you think students should have.

Many faculty members start their verb search with "Bloom's Taxonomy" (which was actually written by Bloom, Engelhart, Furst, Hill, and Krathwohl). The original taxonomy from the 1950s was revised in 2001. For information on the differences between the original the revised version, [Anderson and Krathwohl - Understanding the New Version of Bloom's Taxonomy \(pdf, 241k\)](#)

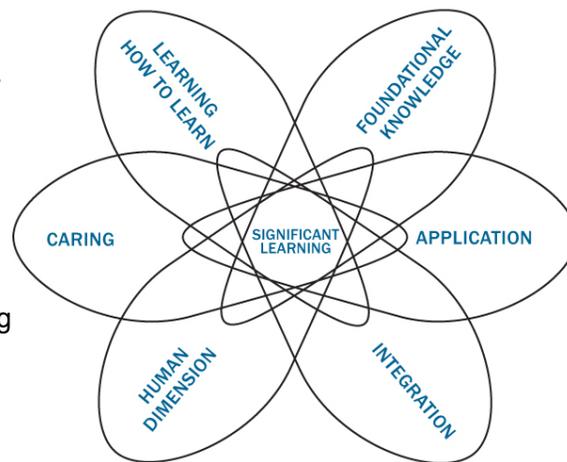
<http://thesecondprinciple.com/wp-content/uploads/2016/01/Anderson-and-Krathwohl.pdf> provides a nice description. Even though most instructors focus on the cognitive domain levels (Remember, Understand, Apply, Analyze, Evaluate, Create), there is a second axis to the taxonomy - the Levels of Knowledge. These include

- Factual knowledge
- Conceptual knowledge
- Procedural knowledge
- Metacognitive knowledge

Iowa State University's interactive [Model of Learning Objectives](#) (<http://www.celt.iastate.edu/teaching/effective-teaching-practices/revised-blooms-taxonomy>) provides an interactive way to look at the intersection of the Cognitive Domain Levels and the Levels of Knowledge. If you'd like to review active verbs for learning outcomes based on Bloom's Cognitive Taxonomy, Azusa Pacific University provides [a list of Bloom's Cognitive Taxonomy verbs \(pdf, 47k\)](#). ([http://www.apu.edu/live\\_data/files/333/blooms\\_taxonomy\\_action\\_verbs.pdf](http://www.apu.edu/live_data/files/333/blooms_taxonomy_action_verbs.pdf))

In 2003, Fink (2013) developed a ["Taxonomy of Significant Learning"](#) ([http://ideaedu.org/wp-content/uploads/2014/11/Idea\\_Paper\\_42.pdf](http://ideaedu.org/wp-content/uploads/2014/11/Idea_Paper_42.pdf)) which he used in tandem with his backward design approach. This taxonomy integrates cognitive and affective areas and adds a metacognitive component. His 6 types of significant learning are interactive but not hierarchical and would be used selectively depending on the learning outcome desired. They are:

- **Foundational Knowledge:** understanding and remembering
- **Application:** skills, critical thinking, creative thinking, practical thinking, and managing projects
- **Integration:** connecting ideas, people, and realms of life
- **Human Dimension:** learning about oneself and others
- **Caring:** developing new feelings, interests, and values
- **Learning How to Learn:** becoming a better student, inquiring about a subject, being a self-directed learner



## Learning Outcomes Generator

Try composing some learning outcomes for your course with the Learning Outcomes Generator. The generator uses both Bloom's cognitive taxonomy and Fink's Taxonomy of Significant Learning.

