

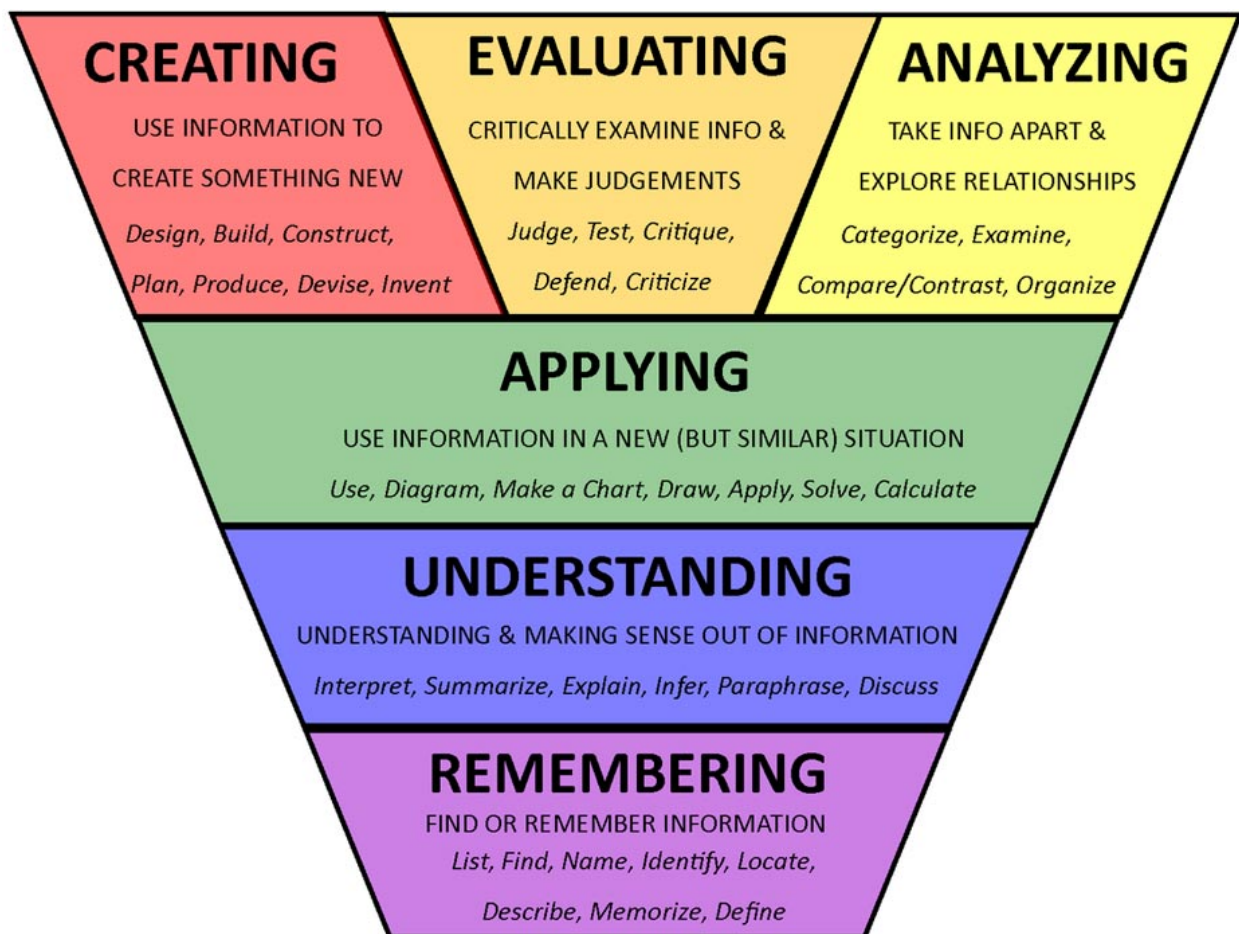
Frameworks for Great Outcomes

Faculty can teach to great outcomes for themselves and their students. Thinking about creating outcomes for courses using one or more learning taxonomies can help. Depending on your discipline and the learning behaviors that you seek, you may use one or more of the learning taxonomies below to distinguish the ways that humans think and learn.

- Bloom's Taxonomy
- The SOLO Taxonomy (Biggs & Collis)
- Six Facets of Understanding (Wiggins & McTighe)
- Fink's Taxonomy

Bloom's Taxonomy of Educational Objectives

Bloom's Taxonomy of Educational Objectives is probably the most widely known and used. Usually abbreviated "Bloom's," this structure classifies thinking according to complexity, moving from remembering to creating and evaluating. Considered in this way, Bloom's also layers skills together so that learners use skills such as remembering to lead to understanding, which then leads to applying and so on.

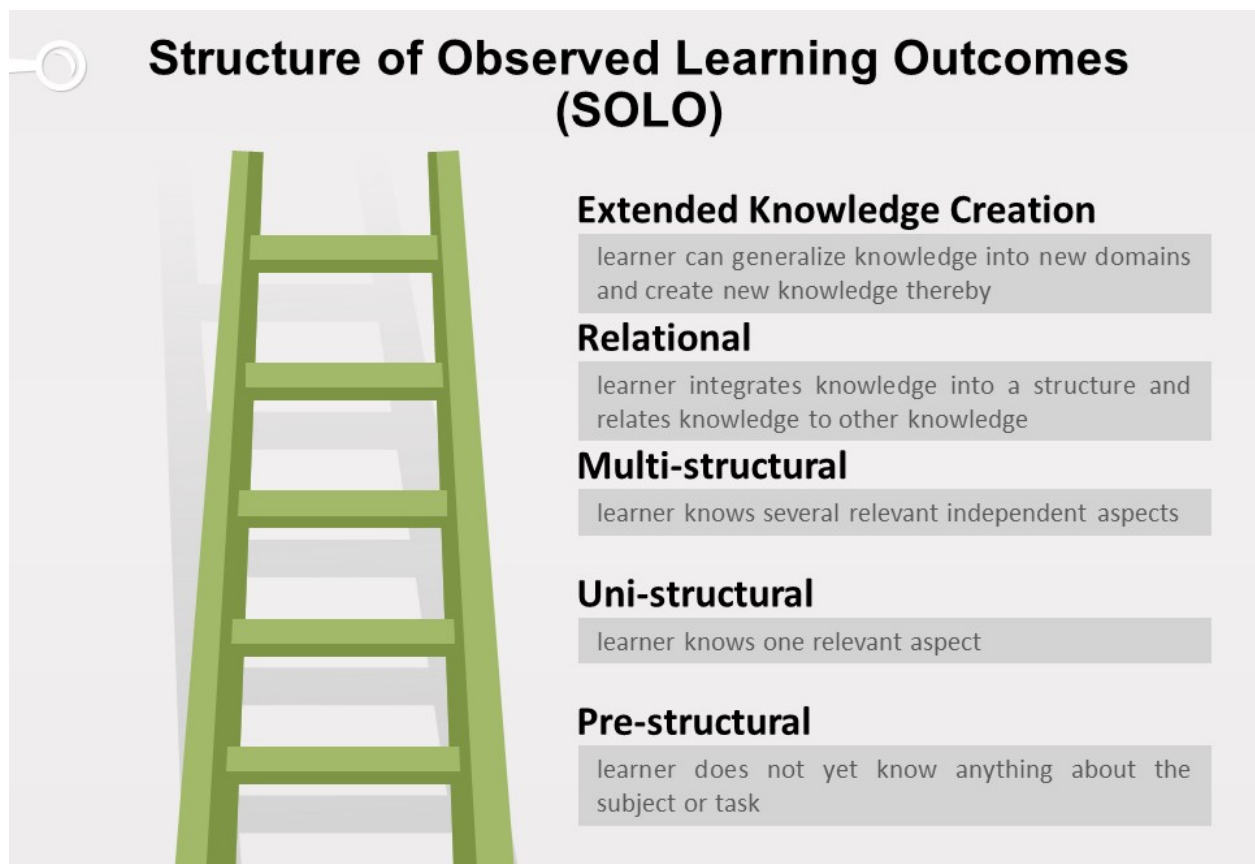


Structure of Observed Learning Outcomes (SOLO) Taxonomy (Biggs and Collis)

The Structure of Observed Learning Outcomes (SOLO) Taxonomy offers another way to think about how learners build understanding as they progress in different subjects or tasks.

SOLO focuses on what learners can do as they progress in learning a discipline; thus SOLO can be helpful in designing assessments in a course or a curriculum. As learners move through the observed outcomes, learners demonstrate increasingly complex, measurable outcomes.

SOLO Taxonomy breaks learning into five levels of measurable outcomes. SOLO can be conceptualized as hierarchical: each stage stacks onto the previous one, building on it.



Six Facets of Understanding/ Essential Questions

The Six Facets taxonomy breaks understanding into six behaviors that a learner can perform. According to Six Facets, learners may variously display understanding of concepts. The facets grow in complexity of thinking task presented to learners from those based on thoughts and ideas of others to those that require learners to think about their own thinking (Wiggins and McTighe, 1998, *Understanding by Design*).

Explanation: Think through concepts in order to provide analysis regarding how, why, cause, or correlation. Arrive at these by asking questions like these:

- What are some examples of?
- How might we prove/confirm/justify?
- What are some common misconceptions about _____?

Interpretation: Relate the concept to your own experiences or views of the world.

- How is _____ like _____? Different from _____?
- What does this new concept/information/idea reveal about _____ (an earlier presented concept/information/idea)?
- How does this new information/concept/idea connect to other questions we have asked?

Application: Connect thinking about the concept to new situations, contexts, or cases.

- How can we apply this concept/idea/information?
- How can we use this concept/idea/information to overcome an obstacle or challenge?
- How could we apply this information in a broader context?

Perception: Think about how other people or groups might explain, interpret, and apply this concept.

- What is another way to see or use this information/concept/idea?
- What are the limits of this concept/information/idea?
- Is the evidence for this idea/concept/information sufficient?

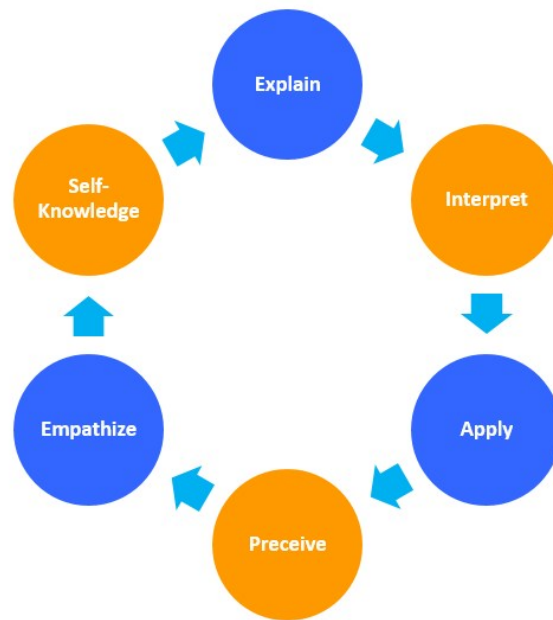
Empathize: Think about how other persons or groups might react emotionally and/or mentally when presented with the concept.

- How might this information/concept/idea elicit specific feelings from someone else? Could this be used to elicit feelings—and thus decisions—from someone else?
- How could we reach a shared understanding of this information/concept/idea?
- How would you respond to this information/concept/idea if you were in a different context?

Self-Knowledgeable: Think through your own thinking regarding the concept. Consider which pieces of information you select, the structure into which you organize those concepts, and evaluate your beliefs around the concept. Recognize when you make assumptions or use biases.

- How do I know about _____?
- What other questions do I have? Where can I find reliable information to answer my questions?
- Does the evidence that I have for this satisfy me? Why or why not?

Learners may demonstrate their understanding in multiple ways, working through these six facets/ answering questions.



Fink's Taxonomy

Fink focuses on what he calls significant learning. This kind of learning produces change in the learner. Fink's Taxonomy works relationally so that each kind of learning relates to other kinds of learning and makes them possible (Fink 2013).

Foundational Knowledge: essential knowledge about a concept.

Application: allows learners to engage in new actions and extends to developing high-level skills that may require practice and iteration, such as playing a sport or a musical instrument.

Integration: learners transfer their learning from a class, course, or discipline to another course or discipline. Encouraging learners to make such connections provides them with the ability to construct their learning and their knowledge.

Human Dimension: engages the learner in considering how the concept affects them and/or other people or groups.

Caring: learners spark to the concept or discipline, and that emotional connection motivates them to learn more.

Learning to Learn: learners think about their approach to a topic, care to learn about it, and think about their own learning habits and practices. Learners identify ways that learning works best for them, and they engage those ways effectively. Learning to learn is not about learning style.

