

Developing Learning Outcomes and Rubrics

Learning Outcomes

What will students be able to do by the end of this program/course? Most learning outcomes combine content or subject matter and an action from Benjamin Bloom's Taxonomy:

Remembering (know, define, repeat, describe, identify, recall, list, tell, locate match)

Understanding (comprehend, classify, convert, explain, summarize, predict, discuss, compare)

Applying (demonstrate, modify, arrange, solve, relate, apply, examine, classify, illustrate)

Analyzing (infer, estimate, order, separate, subdivide, distinguish, contrast, categorize)

Evaluating (critique, justify, discriminate, support, conclude, judge, verify, assess, argue)

Creating (synthesize, design, formulate, revise, construct, compose, invent, imagine, propose)

(Bloom, B.S., *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain*. New York: David McKay Co Inc. 1956.) Taxonomy revised by Lorin Anderson. Designed for higher education it is now pervasive in almost all curriculum design—even dog trainers use this.)

Example A: Students will learn about the importance of scientific, social, artistic or political innovations or discoveries. In this course/major students will learn to

- List important discoveries from the past
- Explain the basic disciplinary concepts underlying each discovery
- Apply the concepts of the discipline to classify discoveries
- Analyze novel aspects of each discovery
- Evaluate which current discoveries will have the greatest impact
- Design a strategy to address an important unanswered question in the field.

Example B: Students will learn about musical styles and historical periods.

In this course/major students will learn to

- Define the different conventions operating in each style or period
- Compare examples of each style or period
- Classify key practitioners using examples
- Infer the style of unknown practitioners using typical characteristics
- Judge if the most typical exemplar is the most interesting
- Construct an argument as to how and why certain thinkers, artists, or authors cross boundaries

The increased specificity and the progression of cognitive skills can help students understand what they are supposed to be learning. For faculty, connecting content to levels of thinking can help clarify the order and purpose of specific activities. At the program level, articulating specific learning outcomes allows departments to have the necessary serious discussions about what students need to learn, when and how.

Creating Significant Learning Experiences: Fink's Taxonomy

If we want students to have a “significant learning experience,” we need to create a complete environment that will support that learning: information is not enough. Dee Fink has proposed a significant revision to Bloom’s taxonomy that replaces Bloom’s linear progression of six levels of cognitive learning (memorization, comprehension, application, analysis, synthesis and evaluation) with a new taxonomy of significant learning. Fink focuses on learning that leads to lasting change that matters to an individual. Fink describes six kinds of related learning that enhance each other.

Foundational knowledge: The facts and principles that constitute course content

Application: Problem solving, decision making, skills or creative thinking

Integration: Interdisciplinarity and the interactions among subjects matter.

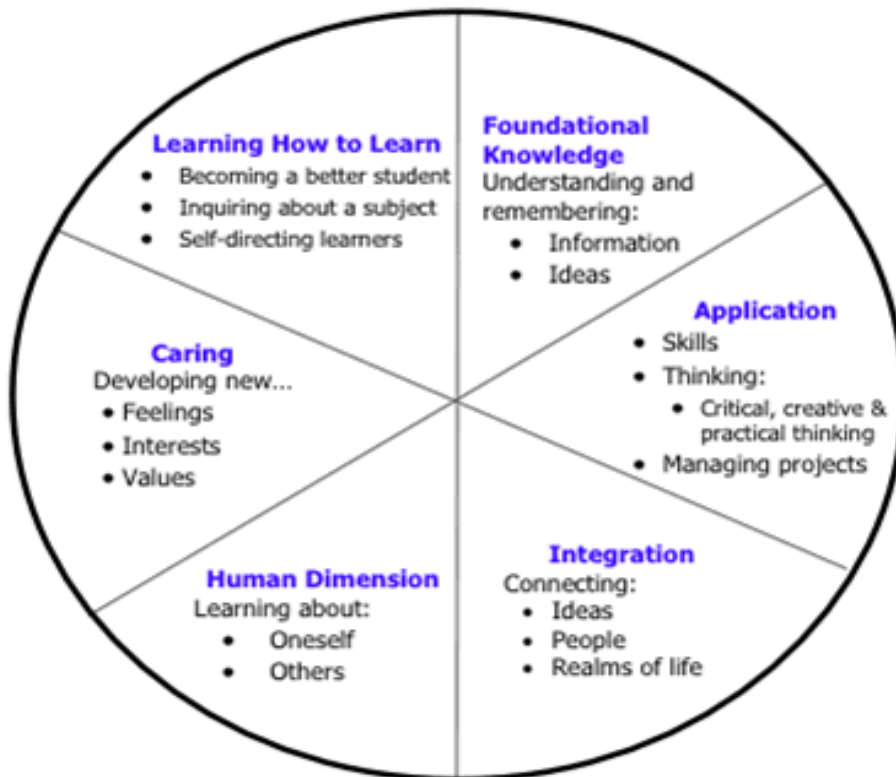
Human dimension: learn about themselves or how to interact with others in life.

Caring: Students change their feelings, interests, or values in relation to a subject.

Learning how to learn: How to we prepare students to continue learning?

The more of all six a course or program can promote, the more significant will be the overall learning experience for the student. This is the point of integrated design.

THE TAXONOMY OF SIGNIFICANT LEARNING



Rubrics

- Rubrics as evaluation tool.
 - from **unstated criteria** (“It feels like a B”) to **explicit criteria**
 - from **norm-referenced** (curve) to **criterion-referenced** (defined standards)
 - Save time
 - Reduce student complaints
- Rubrics as learning tool.
 - guide for student—what am I supposed to be doing?
 - demonstrates both criteria and standards
 - a good rubric should make the assignment apparent almost without further instructions.
- Creating Rubrics
 - Use a table; you need both criteria and standards
 - column one = criteria (clarify your priorities and weights)
 - subsequent columns = standards (A,B,C, D, F or descriptive levels)
 - Start by writing the highest standards and then the lowest
 - Make the high standards aim so students have a target.
- College Writing Rubric (teachingnaked.com/borrow)

More examples of both SLOs and Rubrics and links to resources at teachingnaked.com