REVISED BLOOMS TAXONOMY

for Writing Course and Program Outcomes

Use this guide to develop outcomes at the appropriate course and program level. The revised Blooms Taxonomy differs from the original Bloom's Taxonomy in that it features a Knowledge Dimension in addition to the Cognitive Dimension.

THE COGNITIVE PROCESS DIMENSION

The cognitive process dimension is a continuum of increasing cognitive complexity – from lower order thinking skills to higher order thinking skills.

Remember
Retrieving relevant knowledge from long-term memory.
- Recognizing
- Recalling

Understand
Determining the meaning of instructional messages, including oral, written, and graphic communication.
- Interpreting
- Exemplifying
- Classifying
- Summarizing
- Inferring
- Comparing
- Explaining

Apply
Carrying out or using a procedure in a given situation.
- Executing
- Implementing

Analyze
Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose.
- Differentiating
- Organizing
- Attributing

Evaluate
Making judgements based on criteria and standards.
- Checking
- Critiquing

Create
Putting elements together to form a novel, coherent whole or make an original product.
- Generating
- Planning
- Producing

THE KNOWLEDGE DIMENSION

Classifies types of knowledge that learners may be expected to acquire from concreate to abstract.

Factual
The basic elements students must know to be acquainted with a discipline or solve problems in it.
Knowledge of:
- Classifications and categories
- Principles and generalizations
- Theories, models and structures

Conceptual
The interrelationships among the basic elements within a larger structure that enable them to function together.
Knowledge of:
- Classifications and categories
- Principles and generalizations
- Theories, models and structures

Procedural
how to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods.
Knowledge of:
- Subject-specific skills and algorithms
- Subject-specific principles and generalizations
- Criteria for determining when to use appropriate procedures

Metacognitive
knowledge about cognition in general and awareness and knowledge about one's own cognition.
- Strategic knowledge
- Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge
- Self-knowledge

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THE TAXONOMY TABLE

When developing an outcome, first, consider whether it involves lower or higher order thinking skills, Second, determine the level of knowledge from concrete or abstract. Finally, use this table to guide in targeting the appropriate dimensions and writing the outcome.

*Green cells = cognitive and knowledge dimension outcomes appropriate at the program level.

KNOWLEDGE DIMENSION (OBJECT)	COGNITIVE PROCESS DIMENSION (VERB)	REMEMBER	UNDERSTAND	APPLY	ANALYZE	EVALUATE	CREATE
	FACTUAL KNOWLEDGE	**List** food groups	**Summarize** attributes of diesel engines	**Respond** to a patient's questions	**Select** activities to increase strength	**Check** for coding errors	**Generate** a list of building supplies
	CONCEPTUAL KNOWLEDGE	**Recognize** types of soil	**Classify** muscles by function	**Provide** advice to novices	**Differentiate** the concepts of public safety	**Determine** relevance of play	**Assemble** a team of experts
	PROCEDURAL KNOWLEDGE	**Recall** how to make pasta	**Clarify** proper mask use	**Implement** plans for wellness	**Integrate** learning theory into instruction	**Judge** efficiency of sampling techniques	**Design** instructional techniques
	MEGA-COGNITIVE KNOWLEDGE	**Identify** strategies for retaining information	**Predict** one's response to culture shock	**Exhibit** respectful interaction	**Deconstruct** one's biases	**Reflect** on one's progress	**Create** an innovative learning portfolio

Krathwohl, D.R., (2002). A Revision of Bloom's Taxonomy: An Overview. Theory into Practice, 41(4), 212-218

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