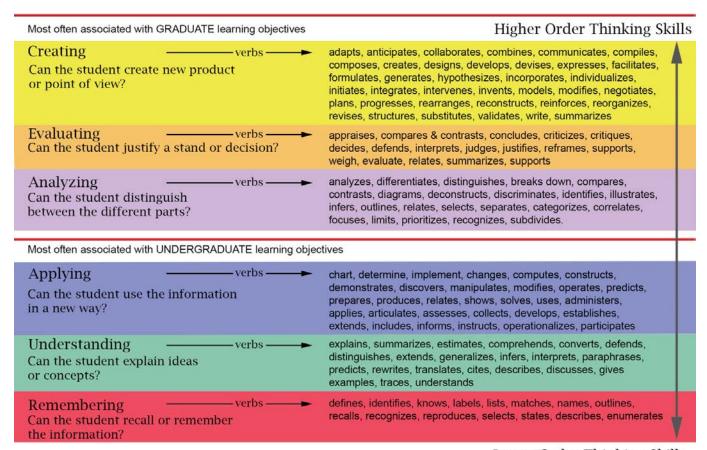# Bloom's Taxonomy

Bloom divided what humans learn into three broad categories: cognitive, affective and psychomotor. According to Bloom's Taxonomy, the cognitive domain involves knowledge and the development of intellectual skills. The six major categories within the cognitive domain are listed below. The cognitive domain levels begin with the simplest behavior and advance to the most complex. As the complexity increases so does the level of difficulty. The learner advances from the lowest level of abstraction (knowledge) to the most complex or highest level of abstraction (Evaluation or Creativity).

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The first three levels are most often associated with *undergraduate* course objectives:

Knowledge – The ability to recall or recognize specific information or data. Knowledge of terminology, means of dealing with specifics (conventions, trends and sequences, classifications and categories, criteria, methodology); universals and abstractions in a field (principles and generalizations, theories and structures). It can be measured through the ability to restate or identify information.

Key Verbs: defines, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states, describes, enumerates,

Comprehension – Understanding the meaning of informational materials, translation, interpolation and interpretation of instructions and problems. States a problem in one's own words or in another format.

Key Verbs: explains, summarizes, estimates, comprehends, converts, defends, distinguishes, extends, generalizes, infers, interprets, paraphrases, predicts, rewrites, translates, cites, describes, discusses, gives examples, traces, understands

Application – The use of previously learned information in new and concrete situations to solve problems that have single or best answers.

Key Verbs: chart, determine, implement, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses, administers, applies, articulates, assesses, collects, develops, establishes, extends, includes, informs, instructs, operationalizes, participates.

The following three levels are most often associated with *graduate* course objectives:

Analysis
Breaks down information/concepts into smaller components. Each component is identified and understood as is the relationship of these components to the whole. Distinguishes between facts and inferences.

Key Verbs: analyzes, differentiates, distinguishes, breaks down, compares, contrasts, diagrams, deconstructs, discriminates, identifies, illustrates, infers, outlines, relates, selects, separates, categorizes, correlates, focuses, limits, prioritizes, recognizes, subdivides.

Evaluation
The ability to apply a criterion or set of standards to conclude a value judgment.

Key Verbs: appraises, compares & contrasts, concludes, criticizes, critiques, decides, defends, interprets, judges, justifies, reframes, supports, weigh, evaluate, relates, summarizes, supports.

Synthesis
The ability to merge knowledge into creating a new meaning or structure including demonstrating how and why various diverse elements work together.

Key Verbs: adapts, anticipates, collaborates, combines, communicates, compiles, composes, creates, designs, develops, devises, expresses, facilitates, formulates, generates, hypothesizes, incorporates, individualizes, initiates, integrates, intervenes, invents, models, modifies, negotiates, plans, progresses, rearranges, reconstructs, reinforces, reorganizes, revises, structures, substitutes, validates, write, summarizes,

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