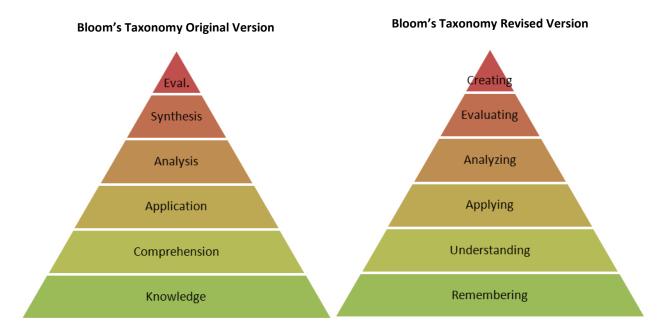# BLOOM'S TAXONOMY REVISITED

Historically, discussions about student learning have been guided by a taxonomy of learning that has come to be known as Bloom's taxonomy (Bloom, 1956). This taxonomy is a hierarchical structure representing six levels of thinking and learning skills that range from basic learning objectives such as knowledge of content through higher-order learning such as synthesis, evaluation, and creativity. Bloom's taxonomy formed the basis for early work on the development of instructional objectives for classes and curricula (Excerpted directly from University of West Florida, n. d., para. 1).

Recent decades have given rise to numerous criticisms of Bloom's original taxonomy, implying that the model was out of date. These criticisms included concerns with setting applicability, contemporary language, and process conceptualization. Emphasis has shifted from *instructional objectives*, which describe what instructors do and the content of material presented during classroom instruction, to *student learning outcomes*, which describe what students can do as a result of their educational experiences.

Instructional objectives were typically described as things (knowledge, understanding, content, facts) that could be delivered during a lecture or presented in written text. In contrast, student learning outcomes are described using concrete verbs (behaviors that can be observed in the student) rather than nouns. Anderson and Krathwohl (2001) have adapted Bloom's model to reflect the needs of today's outcome-oriented language by changing nouns to active verbs. Most notably, *knowledge* has been converted to *remember*. In addition, the highest level of development is *create* rather than *evaluate* (Above paragraphs excerpted and modified from University of West Florida, n. d. para. 1; Smythe and Halonen, 2009). The figure below is a side-by-side comparison of the original Bloom's model and the revised model. The table that follows the figure is a list of explanatory questions that describe the New Bloom's terminology and corresponding action verbs.

Bloom's Taxonomy Original Version **Bloom's Taxonomy Revised Version**

New Bloom's Taxonomic Level & Explanatory Question	Corresponding Action Verbs
Remembering: can the student recall or remember the information?	define, duplicate, list, memorize, recall, repeat, reproduce state
Understanding: can the student explain ideas or concepts?	classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase
Applying: can the student use the information in a new way?	choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.
Analyzing: can the student distinguish between the different parts?	appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.
Evaluating: can the student justify a stand or decision?	appraise, argue, defend, judge, select, support, value, evaluate
Creating: can the student create new product or point of view?	assemble, construct, create, design, develop, formulate, write.

Figure and table from Overbaugh and Schultz, n. d.

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