

Bloom's Taxonomy

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Bloom's Taxonomy is a framework for organizing evidence of learning into levels of complexity and maturity. Published in 1956, the tool was named for professor Benjamin Bloom, who was the first author of the taxonomy developed by 34 scholars at a series of APA conferences between 1949 and 1953. Revised in 2002, it is one of the most widely utilized tools in K-12 and higher education, describing six levels that capture lower to higher-order thinking.

| Bloom's Level | Description |
|----------------------------|--|
| Remembering (lowest-order) | Students can retrieve relevant information from their long-term memory |
| Understanding | Students can determine the meaning of instructional messages, including oral, written and graphic communication |
| Applying | Students can carry out or use a procedure in a given situation |
| Analyzing | Students can break material into its constituent parts and detect how the parts relate to one another and to an overall structure or purpose |
| Evaluating | Students can make a judgment based on criteria and standards |
| Creating (highest-order) | Students can put elements together to form a novel, coherent whole or make an original product |

Adapted from Krathwohl DR. (2002). A Revision of Bloom's Taxonomy: An Overview. Theory Into Practice 41(4).

Below are sample learning goals and objectives that ascend levels of Bloom / Krathwohl's cognitive domain:

- At the end of the course, students will be able to (a formulation known as SWBAT):
 - **identify** specific stages of language acquisition
 - **describe** the colonization of the Americas by the British, French and Spanish
 - **describe** major theories of language development (e.g. nativist, empiricist, interactionist, behaviorist, cognitive)
 - **collect** and analyze research data
 - **articulate** gaps within theories of human language acquisition
 - **verbally present** research findings
 - **disseminate** research findings in written form
 - **analyze** the outcomes of the Civil War
 - **design** a controlled experiment

Learning Objectives

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Learning objectives are the particular knowledge, skills, and abilities that an instructor intends for students to learn or develop. Objectives are more specific than learning *goals*, which take a 10,000-foot view of gains in a course; instead, objectives have specific, measurable outcomes. To this end, the learning activities undertaken by the class and the assessments used to gauge student learning must match – be aligned with – the stated learning objectives.

Learning Goal: Students will develop a broader knowledge of American history.

Learning Objective: Students will be able to describe the timeline of colonization of the Americas by the British, French, and Spanish.

Learning Goal: Students will develop discipline-specific research skills.

Learning Objective: Students will be able to design a controlled experiment.

Learning Goal: Participants will consider the use of learning objectives.

Learning Objective: Participants will develop and write learning objectives for a library instruction session.

This chart maps verbs commonly used in learning objectives to levels of Bloom’s Taxonomy:

| Bloom’s Level | Sample Action Verbs |
|----------------------------|---|
| Remembering (lowest-order) | list, define, describe, recall, label, match, observe, identify, reproduce |
| Understanding | explain, describe, interpret, paraphrase, classify, restate, summarize, express, generalize, recognize |
| Applying | apply, choose, predict, use, illustrate, demonstrate, hypothesize, modify, interpret, develop |
| Analyzing | contrast, distinguish, test, differentiate, categorize, compare, analyze, research, examine, criticize, experiment, map, separate |
| Evaluating | evaluate, judge, predict, argue, persuade, convince, grade, recommend, rank, select |
| Creating (highest-order) | develop, create, design, construct, synthesize, compose, conjecture, formulate, imagine, invent |

To draft effective learning objectives, instructors can consider the following formula:

Students will be able to (ACTION VERB) a/an/the (NOUN) of/by/for (MEASURABLE DETAIL).