



BLOOM'S TAXONOMY FOR LEARNING: THE COGNITIVE DOMAIN

WHAT IT IS AND HOW TO USE IT

WHAT IS IT?

Bloom's taxonomy is a framework used to classify learning objectives in education. Bloom's taxonomy outlines three domains: the cognitive domain, which focuses primarily on the development of students' cognitive capacities such as the ability to recall information, evaluate concepts and ideas, and apply that knowledge in new ways; the affective domain, which focuses on the development of students' attitudes, values, and interests; and the psychomotor domain, which focuses primarily on processing sensory information and bodily movement. Below we will focus primarily on the cognitive domain, as this lends itself most effectively to application in the world of post-secondary education.

WHY IS THIS IMPORTANT?

Within each of the three domains of learning, Bloom identifies a range of skills that students develop which are arranged hierarchically and increase gradually in terms of complexity. The skills highlighted in the cognitive domain are remembering, understanding, applying, analyzing, evaluating, and creating. On the lower levels of the cognitive domain, skills such as remembering new knowledge are highlighted since these skills serve as the foundation for developing higher-order cognitive skills, such as analyzing information and evaluating it.

Although the categories of this taxonomy are presented in a hierarchy, they are not necessarily meant to be prescriptive, nor are they intended to suggest that student learning is always a linear process of moving from one category of the taxonomy to the next. By keeping these broad categories for student learning in mind, however, Bloom's taxonomy can be helpful in the creation of learning outcomes and assignments, and for finding ways to effectively promote and evaluate student learning and growth in the classroom.

HOW CAN INSTRUCTORS IMPLEMENT BLOOM'S TAXONOMY IN THEIR TEACHING?

For instructors who are interested in implementing Bloom's taxonomy into their teaching, consider trying some of the following suggestions:

1. Utilize Bloom's taxonomy to **develop and refine learning outcomes**. Each level of the taxonomy includes a list of action verbs that correspond to the development of that specific skill. Instructors can use these action verbs to help develop learning outcomes that suit the specific needs of their students. For an example of the kinds of action verbs that are associated with each level, see this [verb wheel](#) based on Bloom's taxonomy.
2. Incorporate Bloom's taxonomy in **course design**. For instance, scaffolding an assignment to test a student's knowledge of course concepts and gradually building upon and reflecting on those skills is one way to incorporate Bloom's taxonomy into designing assignments.
3. Implement Bloom's taxonomy via **active learning strategies**. The content and information provided in lectures generally speaks to the lower end of the hierarchy. But giving students a

chance to apply their knowledge via active learning strategies allows them to demonstrate higher-order cognition in the classroom. See Teaching Commons' [Best in Class series](#) for active learning strategies.

4. Use Bloom's taxonomy for **designing summative and formative assessment**. If students need to develop certain skills to meet the learning outcomes for the course, using the taxonomy can be beneficial in identifying specific areas to provide feedback. One way to do this is create rubrics using Bloom's taxonomy to scaffold the cognitive skills being evaluated.
5. **Promote self-assessment and reflection** with Bloom's taxonomy. Provide students with an opportunity to reflect on the nature of their understanding and scaffold their own learning from declarative knowledge to more complex forms of knowing and doing.

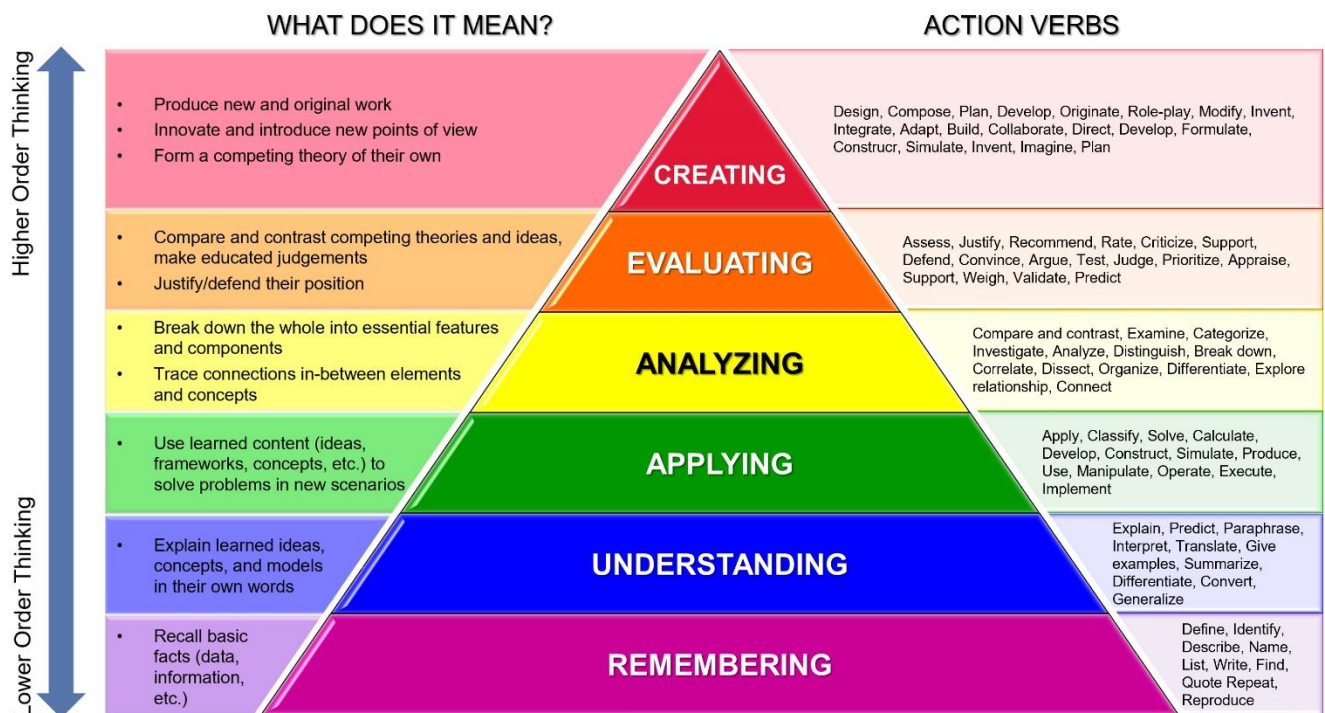


Figure 1: Bloom's Taxonomy of the Cognitive Domain

ADDITIONAL RESOURCES (Internal)

York University. Bloom's Taxonomy.

<https://www.yorku.ca/bold/wp-content/uploads/sites/393/2021/06/Blooms-taxonomy.pdf>

BOLD Institute (Blended and Online Learning Development) OPEN Session. *Lesson 3: Learning Outcomes & Assessment*. <https://eclass.yorku.ca/course/view.php?id=53106>

ADDITIONAL RESOURCES (External)

Explore in 15-30 Minutes

Armstrong, P. (2010). *Bloom's Taxonomy*. Vanderbilt University Center for Teaching. Retrieved [February 13, 2023] from <https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>

Forehand, M. (2010). Bloom's taxonomy. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology* (pp. 41-47). Retrieved from https://textbookequity.org/Textbooks/Orey_Emergin_Perspectives_Learning.pdf

Explore in 30-60 minutes

Das, S., Das Mandal, S. K., & Basu, A. (2022). Classification of action verbs of Bloom's taxonomy cognitive domain: An empirical study. *Journal of Education*, 202(4), 554-566.

Northern Illinois University Center for Innovative Teaching and Learning. (2020). Bloom's taxonomy. In *Instructional guide for university faculty and teaching assistants*. Retrieved from <https://www.niu.edu/citl/resources/guides/instructional-guide>

Persaud, C. (2022, May 11). *Bloom's Taxonomy: The Ultimate Guide* [Free Download]. Top Hat. <https://tophat.com/blog/blooms-taxonomy/>

Explore in 60+ minutes

Anderson, L. W., Krathwohl, D. R., Bloom, B. S., & Bloom, B. S. (Benjamin S.) (2001). *A taxonomy for learning, teaching, and assessing : a revision of Bloom's taxonomy of educational objectives* / editors, Lorin W. Anderson, David Krathwohl ; contributors, Peter W. Airasian ... [et al.]. (Complete ed.). Longman.

Newton PM, Da Silva A and Peters LG (2020) A Pragmatic Master List of Action Verbs for Bloom's Taxonomy. *Front. Educ.* 5:107. doi: 10.3389/educ.2020.00107

Would you like to learn more?

Contact us at Teaching Commons for additional resources, handouts, applications, courses, workshops, examples, advice, assistance, one-on-one consulting, and everything else related to teaching and learning. We are happy and eager to assist you!



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1050 Victor Phillip Dahdaleh (formerly TEL) Building, 4700 Keele Street, Toronto, ON M3J 1P3



416.736.2100 ext. 55754



Created by [Andrew Molas](#) & [Robert D. Winkler](#)



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