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](https://www.yorku.ca/bold/wp-content/uploads/sites/393/2021/06/Blooms-taxonomy.pdf)

**ADDITIONAL RESOURCES (Internal)**


**ADDITIONAL RESOURCES (External)**
Explore in 15-30 Minutes

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**WHAT DOES IT MEAN?**

**CREATING**
- Produce new and original work
- Innovate and introduce new points of view
- Form a competing theory of their own

**EVALUATING**
- Compare and contrast competing theories and ideas, make educated judgements
- Justify/defend their position

**ANALYZING**
- Break down the whole into essential features and components
- Trace connections in-between elements and concepts

**APPLYING**
- Use learned content (ideas, frameworks, concepts, etc.) to solve problems in new scenarios

**UNDERSTANDING**
- Explain learned ideas, concepts, and models in their own words

**REMEMBERING**
- Recall basic facts (data, information, etc.)

**ACTION VERBS**
- Design, Compose, Plan, Develop, Originate, Role-play, Modify, Invent, Integrate, Adapt, Build, Collaborate, Direct, Develop, Formulate, Construct, Simulate, Invent, Imagine, Plan
- Assess, Justify, Recommend, Rate, Criticize, Support, Defend, Convince, Argue, Test, Judge, Prioritize, Appraise, Support, Weigh, Validate, Predict
- Compare and contrast, Examine, Categorize, Investigate, Analyze, Disturb, Break down, Correlate, Dissed, Organize, Differentiate, Explore relationship, Connect
- Apply, Classify, Solve, Calculate, Develop, Construct, Simulate, Produce, Use, Manipulate, Operate, Execute, Implement
- Explain, Predict, Paraphrase, Interprete, Translate, Give examples, Summarize, Differentiate, Convert, Generalize
- Define, Identify, Describe, Name, List, Write, Find, Quote, Repeat, Reproduce

Explore in 30-60 minutes


Explore in 60+ minutes


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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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