Bloom's Taxonomy of Educational Objectives

Introduction

Bloom's Taxonomy is a classification system of the process of thinking and learning. It is proposed by Bloom (1956). It categorized learning into three domains: Cognitive (mental skills, knowledge), affective (growth in feelings, emotions, and attitudes), and psychomotor (manual or physical skills).

It is the most widely used way of organizing levels of thinking. Bloom's Taxonomy uses a multi-tiered scale to express the level of expertise required to achieve each measurable student outcome. Organizing measurable student outcomes in this way will allow us to select appropriate classroom assessment techniques for the course.

Bloom's Taxonomy provides an important framework for teachers to use to focus on higher order thinking. By providing a hierarchy of levels, this taxonomy can assist teachers in designing performance tasks, crafting questions for conferring with students, and providing feedback on student work.

I. Cognitive Domain

The cognitive domain involves knowledge and the development of intellectual skills (Bloom, 1956). This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. There are six major categories of cognitive processes, starting from the simplest to the most complex.

1. **Knowledge** (memorize a poem, recalls state capitals, remember math formulas)
2. **Comprehension** (organize the animal kingdom based on a given framework, illustrate the difference between a rectangle and square, summarize the plot of a simple story)
3. **Application** (use a formula to solve a problem, select a design to meet a purpose)
4. **Analysis** (identify the 'parts of' democracy, explain how the steps of the scientific process work together, identify why a machine isn't working)
5. **Synthesis** (Ability to put parts together, for example, when you combine what you have learnt in MDD, Psychology, TEFL,… in creating effective teaching experiences for your learners)
6. **Evaluation** (make a judgment regarding an ethical dilemma, interpret the significance of a given law of physics, illustrate the relative value of a technological innovation in a specific setting—a tool that helps recover topsoil farming, for example.)

These categories can be thought of as degrees of difficulties. That is, the first ones must normally be mastered before the next one can take place.

When you are creating course objectives, you need to be aware of the level at which you are asking students to perform. Objectives for an introductory course may be appropriately concentrated in the lower levels, while objectives for an upper level course will normally be concentrated in the upper levels. However, since it is our mission not just to convey information to our students but to encourage their critical thinking and reasoning skills, we need to encourage higher order thinking skills from the beginning.

Moreover, this framework can be used to create assessments, evaluate the complexity of assignments, increase the rigor of a lesson, simplify an activity to help personalize learning, design a summative assessment, plan project-based learning, frame a group discussion, and more. Because it simply provides an order for cognitive behaviours, it can be applied to almost anything.

Bloom (1956) classified the six levels of thinking in the cognitive domain into three levels:

1. **Recall**: it includes knowledge and comprehension
2. **Interpretation:** it includes application and analysis
3. **Problem-solving**: it includes synthesis and evaluation