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Principal's Post

About Teaching and Learning

What are higher level thinking skills?

Many times we read that lessons require *high level thinking skills* but what does that mean? Back in the 1950's Benjamin Bloom, an educational psychologist, and his colleagues identified 3 domains of learning: Cognitive, Affective and Psychomotor. These categories represent types of learning and, as we now know, correspond to different regions of the brain. When teachers talk about educating the "whole child" they mean making sure that the school environment, the curricula and the lessons take these domains into consideration. Lessons are deliberately crafted so that learning takes place in all 3 domains.

Bloom's Domains of Learning

The <u>cognitive domain</u> involves knowledge and the development of intellectual skills (Bloom, et al, 1956). This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills.

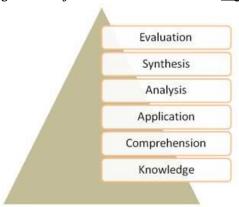
The affective domain (Krathwohl, Bloom, Masia, 1973) includes the manner in which we deal with things emotionally, such as feelings, <u>values</u>, appreciation, enthusiasms, <u>motivations</u>, and <u>attitudes</u>.

The <u>psychomotor domain</u> (Simpson, 1972) includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. Thus, psychomotor skills range from manual tasks, such as digging a ditch or washing a car, to more complex tasks, such as operating a complex piece of machinery or dancing.

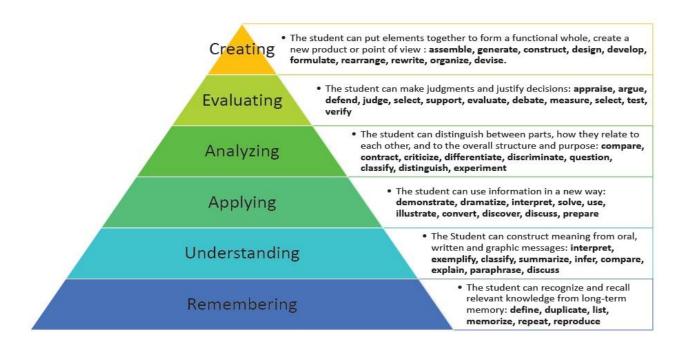
Bloom's Taxonomy of Learning Objectives

Bloom constructed a hierarchy or "stairway" of skills within each domain. The ladder of skills in the cognitive domain, *known as Bloom's Taxonomy of Learning Objectives*, is

a progression from the lowest to the <u>highest level thinking skills</u>.



In the 1990's the taxonomy was revised to reflect new understandings about learning. Each area is expressed as a verb to denote active learning. The chart below shows the revised <u>cognitive taxonomy</u> and gives examples of what the student is expected to do.



Bloom's taxonomy is used to design programs for learning such as the Common Core Standards and the Archdiocesan Curriculum Guidelines. Teachers use Bloom's Taxonomy to plan, teach and assess lessons within their classroom. All students are able to use higher level thinking skills. Learning through "doing", exploring and experimenting, problem solving are strategies that promote higher level skills. Children at all stages of development are capable of acquiring skills at *every level* on the taxonomy.

Source: http://www.nwlink.com/~donclark/hrd/bloom.html