

A Blooming Education

By Earl J. Moniz

Back in 1956, an educational researcher named Benjamin S. Bloom devised a theory of the different levels of the cognitive domain in an attempt to determine the different levels of learning. There are six levels in his theory that have become known as the "Bloom model" or "Bloom's taxonomy." These six levels are, in increasingly more complex stages, knowledge, comprehension, application, analysis, synthesis, and evaluation. They are described thoroughly in "Stating Objectives for Classroom Instruction," (Norman E. Gronland, 3rd ed., Macmillan Publishing, 1985.).

Briefly, knowledge is the simple recalling of previously learned material. This level is the lowest level of learning. Comprehension is the ability to understand the meaning of the material being recalled. This level is a step above simple recall and is the lowest level of understanding. Application is the ability to use learned material in the resolution of new and perplexing situations. Successful resolutions of new problems at this level require a higher level of understanding than simple comprehension. To this point, these levels of learning should be instilled and inculcated in all high school graduates. These levels provide the individual with the confidence to learn on the job, recall that learned information when necessary, modify the solutions to previously solved problems, and decide on a course of action for the situation at hand. Education is fairly simple and straightforward to this point. The main objective is to provide the students with the wherewithal to succeed in their adult lives as employees and as members of society as well.

The purposes of higher educational institutions must be to provide the more intellectually inclined or more personally motivated individuals with the opportunity to move above and beyond the simple success in personal endeavors. This institution, which, for our purposes we will call the Universitas, must encourage and elevate students above and beyond the simple learn, recall, and apply pattern of dealing with life situations. The Universitas must coax its students, as well as provide them the opportunities, to aspire to higher levels cognitive abilities in the resolution of more complex problems.

The next level of learning is the analysis stage. At this point, the student must be able to break down complex material into its component parts in order to understand

more easily the organizational structure of the subject being studied. Once the healthy organization is understood, the identification of the causes of an unhealthy organization, organism, or structure may be accomplished.

The next level of this learning model is the synthesis stage. This level is characterized by the ability to take individual pieces and parts of analyzed organizations, organisms, or structures learned in the previous stage and rearrange them into completely new organizations, organisms, or structures. This stage could also be identified with creativity: the ability to put old pieces together to form a new whole, and to form completely new pieces from previous learning experiences as well.

The final stage in the Bloom taxonomy is the evaluation stage. At this level, an individual is concerned with evaluating and judging the quality of material for a given purpose. Upon reading a statement, poem, or research report, the individual should be able to break down the total into components and determine whether these indicates that much of the problem in education lies in the inability to instill in students the desire to search for the good life based on the search for truth. This argument may be one of the reasons why critical thinking is making such a surge in the "buzz word" vocabulary of many educators. Students have been lulled into a state of complacency by an educational system that believes it can manipulate the truth to its own whims and wishes. Students must be alerted to the fact that learning is an active endeavor and that students must be critical about what is being taught. Don't settle for a four-year college-level high school education. Demand more!

How can students identify the level of learning being presented before the ordeal of an entire semester and final exams have passed? Simple. Each student is provided a syllabus at the beginning of each semester. A careful study of this syllabus will determine which level the professor is attempting to reach. Behavioral objectives like "knows, defines, selects, understands, summarizes, applies, solves, and predicts" are normally associated with the three lower levels of learning. Courses with objectives that limit themselves to these levels should be scrutinized thoroughly. Find other students with experiences with that professor and determine through your own values whether continued enrollment is worthwhile. Syllabi of courses that do not provide even these simple guidelines to objectives, or are absent of objectives en-

tirely, should be avoided.

Higher level learning can be identified by behavioral objectives like "recognizes, distinguishes, categorizes, writes, integrates, proposes, formulates, judges, appraises, interprets, and criticizes." Professors teaching at this level will be challenging, inspiring, and thought-provoking, so, do not expect mediocrity here. These parts support the overall theme or purpose of the piece. In addition, if the purpose is not reached by the supporting evidence, the individual should be able to synthesize new theories or additional statements from previously learned material that will turn the piece into a stronger argument for the intended purpose. This level is the highest in the Bloom taxonomy because it involves the application of all previously learned information and final judgments are also influenced by individual held beliefs, morals, or concepts.

In this fashion, the Universitas ideal is to push the student into the higher levels of learning and understanding. Many professors, too many, are satisfied to establish the application level as a final objective of their college students. This determination on the part of college professors produces college graduates with little more than high school graduate abilities. Simply put, these types of professors are satisfied to produce college graduates with a degree without an education. Understandably, many students reach the college level without attaining even the rudimentary level of application. Many teachers, too many once again, at lower grade levels also settle for lower levels of learning. This attitude produces high school graduates without their attainment of even the fundamental levels of learning. Many college professors lament about having students that cannot write complete sentences or even devise a simple topic sentence for an essay. Is it any wonder that those high school graduates who have attained those fundamental levels get bored with college work, lose interest so quickly, and yearn for stern professors with an inspiring and challenging message?

Allan Bloom (What's with all these "bloom"ing educators, anyway?), in his book, "The Closing of the American Mind," professors will also appreciate creativity and innovation. Students can expect not only to learn while attaining high standards, but also to have fun. Learning can be fun... now there's a truly innovative concept!

When, and if, an effective, challenging,

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