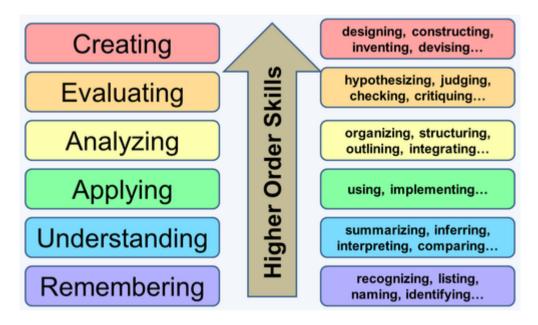
## Use Bloom's Taxonomy for effective learning objectives

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**Keywords:** Benjamin Bloom, Bloom's Taxonomy, Teaching-Learning Process, Learning Objectives, Remembering, Understanding, Applying, Analyzing, Evaluating, Creating, Lorin Anderson and David Krathwohl, Synthesizing.

**Teaching-** Learning is a combined process where an educator assesses learning needs, establishes specific learning objectives, develops teaching and learning strategies, implements plan of work and evaluates the outcomes of the instruction. Though teaching – learning process is the base of education, it is not often understood.

Usually in most university programs, we find it difficult to relate inputs to outcomes. Inputs, such as syllabus, textbook, notes, PPT slides, assessment pattern are put into the hands of a teacher. And, a lot of time, energy, and thinking are invested while designing an educational program. But, it is treated ambiguously because of the lack of scientific assessment of the program output. The output is rarely been measured properly. Both the teacher and student cannot predict the learning outcomes because of the lack of precisely drafted course output. It is worth to note that teaching-learning process becomes easier for both the instructor and the students when learning objectives are clearly mentioned and accordingly a subject is taught. They make the learning process more inspiring for the students. Learning objectives communicate exclusively what students should be able to do after learning a subject. For example, the subject of business communications in MBA program has the learning objectives as follows:

- The student will understand effective business report writing skills
- Will develop useful listening skills
- Adapt research approach for information collection
- Develop and delivering effective presentation skills
- Will develop positive interpersonal communications
- Analyze the importance of time management.

Learning objectives should be used to guide students as they work through the course, and to assess their learning progress. Vividly drafted learning objectives provide as a guide for students when reviewing materials and during assessments. Learning objectives are the most powerful if they are actionable and measurable.

Bloom's Taxonomy was created by Benjamin Bloom in 1956, published as a kind of classification of learning outcomes and objectives that has been used in the more than half-century. It is a framework for

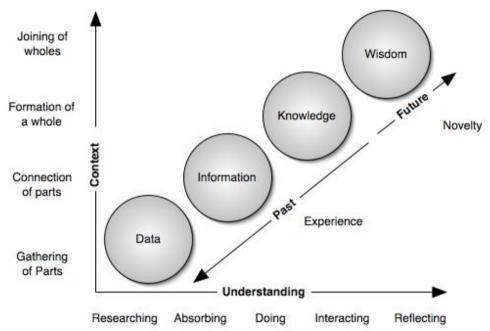
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everything from framing digital tasks and evaluating apps to writing questions and assessments. The original sequence of cognitive skills was knowledge, comprehension, application, analysis, synthesis, and evaluation. The framework was revised in 2001 by Lorin Anderson and David Krathwohl, by replacing *'Synthesis'* with *'Creation'* as the highest-level of Bloom's Taxonomy. And being at the highest level, the implication is that it's the most complex and demanding cognitive skill; it represents a kind of pinnacle for cognitive tasks.

How Bloom's Taxonomy Is Useful for Teachers? Educators are keen to use Bloom's because, among other qualities, it gives them a way to think about their teaching and the ensuing learning of their students. The framework can be used to create assessments, evaluate the complexity of assignments, increase the rigor of a lesson, and simplify an activity to help personalize learning, design a cumulative assessment, plan project-based learning, it helps to frame a group discussion, a quiz, a role-play and much more. Because it simply provides an order for cognitive behaviors, it can be applied to almost anything. There are six levels in Bloom's Taxonomy. There are six levels of Bloom's Taxonomy; remembering at the base and creating at the top of the hierarchy.

## The Six Levels are:

1. The first level of Bloom's Taxonomy is to Remember: We need to remember in order to move forward, we also need to look back which is again remembering. The historical approaches help in analyzing why changes took place. Activities such as memorizing, taking notes, memory spots, writing diary, creating mental memory tree helps to remember what we have studied.



- 2. The second level of Bloom's Taxonomy is to Understand: When something is meaningful, it is understood and retained for longer time. Understanding can be built upon, and helps in acquiring further understanding. A learner becomes versatile in the situations because he uses his understanding. For example, the law of demand in Economics gives us an understanding that if all other factors remain equal, the higher the price of a good, the less people will demand that good. In other words, the higher the price, the lower the quantity demanded. Similarly, once you understand what an atom is, you are not likely to forget it; it is essential for understanding the chemical behavior of matter (atomic theory); it is a broadly useful concept in chemistry; and it greatly facilitates a chemist's ability to develop creative ideas and products.
- **3. The third level of Bloom's Taxonomy is Apply:** Teaching students to apply knowledge and skills is important part of teaching learning process. Applying knowledge benefits in accomplishing public and organizational goals; application also fosters understanding of a concept deeper. Knowing is like winning half battle; applying what you know is great. Knowledge is power about applying knowledge is more powerful.
- **4.** The fourth level of Bloom's Taxonomy is to Analyze: Analysis is essential in every aspect of life. We need to look at our goals, we need to analyze what we have accomplished and accordingly analyze future plans. We

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need to analyze available opportunities, weaknesses, threats and remedies. Individuals and organizations can move forward and make progress only when they analyze.

- **5.** The fifth level of Bloom's Taxonomy is to Evaluate: Evaluation is a process that critically examines a program. It involves collecting and analyzing information about a program's activities, characteristics, and outcomes. Good management is based on good decision making. Good decision making depends on good information. Good information requires good data and careful analysis of the data. These are all critical elements of evaluation.
- **6.** The sixth and final level of Bloom's taxonomy is to Create: As mentioned above, the framework was revised in 2001 by Lorin Anderson and David Krathwohl, by replacing 'Synthesis' with 'Creation' as the highest-level of Bloom's Taxonomy. Creating is the most complex or demanding cognitive skill, it is at highest of all the cognitive tasks. Creativity is one of the greatest qualities of an individual and the outcome of education; it helps in solving problems, it helps in articulating a process.

## **Summary:**

For so many decades the practice of education reform has been focused on curriculum, assessment, instruction, and more recently standards, and data, with these efforts only focusing over into how students think, it can be briefly or by chance. This means that the focus is limited on teacher and school resources which are not promoting thinking and understanding. But, in the 21<sup>st</sup> century, the reforms include persistent connectivity, dynamic media forms, information-rich digital and non-digital environments, and an emphasis on visibility for pretty much everything. How should educators use Bloom's Taxonomy in their classroom? What kinds of adjustments should they make in light of the digital era?

A teacher/instructor must plan learning objectives in the centre of the teaching plan which should be both specific and measurable. The teacher must define objectives in simple, clear language, and avoid jargon or references and avoid going beyond scope of study of a subject. A syllabus must be revised after two-three years to accommodate gaps between business world, society and academics. A torpid syllabus is useless for students, changing it requires measurable guidance. Education cannot afford to be cocooned in mundane policies and politics. The objectives of education must be broad; it should be to increase creativity in society and world at large. Vague objectives mar the purpose of education. Bloom's Taxonomy allows being articulate and specific in educational endeavor.