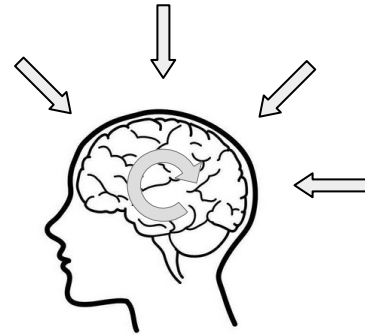


Levels of Complex Thought








Increasing Complexity ↑	Create – develop new creative concepts
	Evaluate – judge value, see other side
	Analyze – break apart and find relationships
	Apply – use concept in new situation
	Understand – make sense of concept
	Remember – rote recall of material

Levels of Bloom's Taxonomy



Instructional Methods and Memory Retention

Average percentage of retention of material after 24 hours for each of the instructional methods.

Lecture – 5%	
Reading – 10%	
Audiovisual – 20%	
Demonstration – 30%	
Discussion Group – 40%	
Practice Doing – 75%	
Teach Others / Immediate use of Learning – 90%	

Other Factors in Long Term Memory Formation

- Memories are stored best when encountered in a **safe environment**. *Memories are stored with a data component and an emotional component. For the system to work best, the student should not be afraid. They should not be afraid of saying the wrong answer or of having their belief system ripped apart.*
- Memory works best if the data **makes sense**.
- Memory works best if the data **has meaning and/or is relevant** to the student.
- People have filters in how they receive data based on **learning styles** (*visual, aural, verbal[reading/writing], kinesthetic*) **and multiple intelligences** (*Visual-Spatial, Bodily-kinesthetic, Musical, Interpersonal, Intrapersonal, Linguistic, Logic-Mathematical, Naturalist*). *If they don't experience the information they can't store it.*
- There is another filter between short term and long term memory that is based on the student's **world view and experiences**. *What gets stored may not be what the teacher thought they said. If new data doesn't fit into their "previous experience filter" it can get distorted to fit or will be forgotten because it doesn't make sense.*