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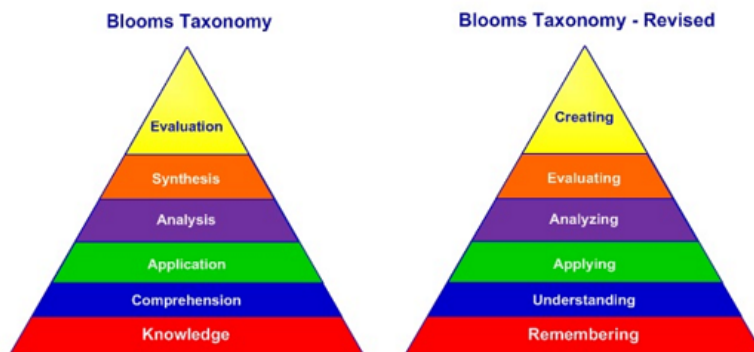
Here's What's Wrong With Bloom's Taxonomy: A Deeper Learning Perspective

By Contributing Blogger on March 14, 2018 10:36 AM | No comments

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This post is by Ron Berger, Chief Academic Officer at EL Education.

Almost every educator knows the Bloom's Taxonomy cognitive framework. The related pyramid graphic has influenced curriculum and instruction since its introduction in 1956 and its revision in 2001.



The problem is that both versions present a false vision of learning. Learning is not a hierarchy or a linear process. This graphic gives the mistaken impression that these cognitive processes are discrete, that it's possible to perform one of these skills separately from others. It also gives the mistaken impression that some of these skills are more difficult and more important than others. It can blind us to the integrated process that actually takes place in students' minds as they learn.

My critique of this framework is not intended to blame anyone. I don't assume that Benjamin Bloom and his team, or the group who revised his pyramid, necessarily intended for us to see these skills as discrete or ranked in importance. I also know that thoughtful educators use this framework to excellent ends--to emphasize that curriculum and instruction must focus in a balanced way on the full range of skills, for all students from all backgrounds. But my experience suggests that what most of us take away from this pyramid is the idea that these skills are discrete and hierarchical. That misconception undermines our understanding of teaching and learning, and our work with students.

The Doug Lemov Critique

Educator Doug Lemov [recently critiqued Bloom's Taxonomy](#) with an argument that others have raised in the past. He is concerned that the construction of the pyramid places knowledge/remembering at the bottom of the stack. It is therefore seen as least important, as a "lower-level" process that should be avoided as much as possible to give students more "higher-level" skills. Although one could alternately see the bottom of the pyramid (as Bloom intended) as its foundation--nothing above being possible without a strong base of knowledge--Lemov argues that this is not the way most teachers see it. The framework, he argues, contributes to a national trend to devalue the importance of basic knowledge, which is a serious problem. From an equity perspective, Lemov and many others with this viewpoint argue that low-income students with less exposure to sources of knowledge suffer greatly from a knowledge gap that schools must address.

I agree with Doug Lemov on all of these points. Knowledge matters. There are many learning situations where knowledge/remembering is actually the most important skill (e.g., I would not want to go hunting for mushrooms with someone who has a poor memory of edible and poisonous species). Also, students cannot analyze or evaluate anything if they don't know facts and evidence. And, I agree that the knowledge gap--really, an opportunity gap--for low-income students is a serious equity problem.

But I also agree with many of the educators who are in the opposite camp, who are pushing for the other skills, beyond remembering, to be a bigger part of instruction, especially for low-income students. These educators are motivated by equity as well. Like me, they have observed countless classrooms, especially in low-income communities, where almost every single question is a "remembering" question, where students are rarely asked to analyze or synthesize, and where fill-in-the-facts worksheets dominate instruction.

The emphasis, for teachers, shouldn't be which cognitive process to choose as the focus of a lesson, or how to move up the pyramid. Every part of the framework matters. Teachers should instead strive for balance and integration.

Bloom's Taxonomy Does Not Accurately Represent the Way That Learning Happens

My problem with Bloom's Taxonomy is not the same as Doug Lemov's problem with it. For me, the root problem with the framework is that it does not accurately represent the way that we learn things. We don't start by remembering things, then understand them, then apply them, and move up the pyramid in steps as our capacity grows. Instead, much of the time we build understanding *by applying knowledge and by creating things*.

When adults set out to learn something new--let's say Spanish, meditation, Adobe Photoshop, or woodworking--we certainly have to learn facts and remember things. But we also quickly realize that we have little understanding until we have actually tried to speak, read, or write Spanish; practice meditation; edit photos; or build a shelf. In other words, we have to apply and create in order to understand. The creation process is where we construct deep understanding.

This is the same for our students. We may "teach" students to write a persuasive essay by having them remember the elements of an essay through a lecture or a rubric. We may assume then that they understand this skill. But I would argue that they have no real understanding of how to write an essay until they have applied their knowledge and created an essay themselves. Additionally, they need to analyze and evaluate the first draft of their essay, and those of their peers, to build an understanding of what represents quality in that genre so that they can revise and improve. Additionally, they need to analyze and evaluate the first draft of their essay, along with **models** of other essays, to build an understanding of what represents quality in that genre so that they can revise and improve. This integrated, circular, iterative process is how learners build understanding.

I understand that no framework can match real life. Frameworks create artificial categories to help us organize our thinking, and those categories are rarely truly discrete in practice or the only way information can be bundled. Frameworks can be useful anyway. One could argue that Bloom's Taxonomy does more good than harm as a framework, as it reminds us to focus on this range of skills with students.

But over the years, working with thousands of teachers, I have come to believe that Bloom's Taxonomy does more harm than good. It encourages us to organize classroom instruction counter to the way that we actually learn. If we agree that understanding is often built through application and creation, we need to provide opportunities for students to create things (and analyze those creations) much of the time. While they create and analyze, *they will build knowledge and understanding*. They can begin creating things right at the beginning of a study. They can use their minds and their hands actively in the creation process and analyzing their understanding, individually and collaboratively, all the time.

When I was a classroom teacher and my students were unusually successful, people often asked me what made my classroom different. One difference was basic: my students spent much of the day making things, not sitting and listening. The things they made might be long-range, collaborative, interdisciplinary projects; they might also be short, discipline-specific tasks--written pieces or mathematical models. In both cases, they were working to build understanding (at the same time as we were remembering, evaluating, and synthesizing) *through creating things*.

Preparing for Life

Whatever careers and life choices our students make, many will soon find themselves in situations where they need to create things (e.g., websites, blueprints, circuit boards, business plans, nursing reports, community campaigns). Much of their learning will take place *while they create these things*, during the process of research, trial, prototype, critique, and revision. What they learn through this process will send them back to books or other resources, or encourage them to connect with colleagues in order to learn new facts. Learning in life is dynamic, synergistic, interrelated, and deeply connected to creation. It is never a static pyramid.

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