



Was Bloom's Taxonomy Pointed in the Wrong Direction?

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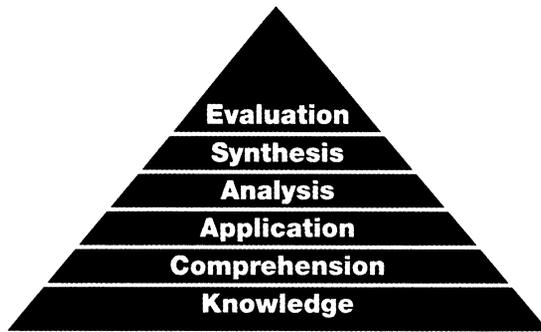
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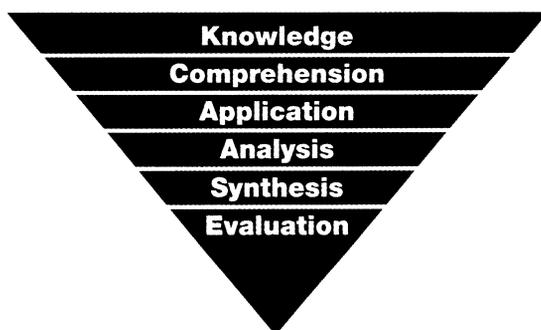


Pyramids in thousands of classrooms portrayed knowledge as low-hanging fruit and evaluation as the terrain of intellectual mountaineers.

Was Bloom's Taxonomy Pointed in the Wrong Direction?

Placing knowledge at the bottom of the Bloom pyramid sends the wrong message about the importance of knowledge in learning.

**By Sam Wineburg
and
Jack Schneider**



Benjamin Bloom did not set out to design a poster for teachers. Yet in thousands of classrooms around the world, familiar pictures of pyramids line the walls.

The scheme has been translated into every language known to man, and laminated posters of Bloom's Taxonomy adorn schoolrooms from Oklahoma City to Osaka, Tallahassee to Tajikistan.

Created in a postwar world marked by increasing specialization and fragmentation, Bloom's Taxonomy offered a way of thinking about knowing writ large. Though teachers might call themselves math teachers, or English teachers, or history teachers, they were really all engaged in the same process: teaching students to think. And thinking, whatever particular disciplines it came in, could be organized and classified according to Bloom's levels. The taxonomy, in short, promised to establish a scientific sense of order.

Bloom was not alone in categorizing human thought. But the beauty of his taxonomy was simplicity. It was made up of six categories, not 60. And even when the original taxonomy was joined by its helpmate, the Taxonomy of Affective Educational Outcomes, it still remained lean and intuitive, easy to remember, easy to use. Teachers could close their eyes and picture it. Entrepreneurial consultants could cover the basics in an hour-long workshop.

At the wide and stable base of the taxonomic structure was "knowledge." A prerequisite to all of the steps that came afterward, it was the platform from which students might reach higher and more impressive

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ground. Pyramids in thousands of classrooms portrayed knowledge as low-hanging fruit and evaluation as the terrain of intellectual mountaineers.

The pyramid was clear, straightforward, and popular. But, at least when it came to the history classroom, it was also upside down.

Knowledge of history, as those Bloomian pyramids imply, can function as a set of building blocks to be assembled for the purpose of making judgments. But while mastering new facts can help students see the world more intelligibly and formulate opinions, it doesn't necessarily follow that it will teach them to *think*. As math is more than theorems and science more than formulas, the discipline of history is more than facts. As historians well know, it is a way of thinking about problems, guiding practitioners through the process of reconstructing the past from incomplete fragments. And the process never ends. Its final destination must always lead to a new beginning.

THROUGH A STUDENT LENS

Monday through Thursday, students in a typical high school history class work through definitions and new knowledge. On Friday, they're quizzed. In many schools, this goes on from the first day of school in September through the beginning of Christmas break. When asked for his take on the logic behind the practice, one teacher we spoke to found succor in Bloom's Taxonomy:

You see, I want kids to engage in critical thinking, but, hey, you can't think about nothing. You need a database to get to all those higher-order places, Analysis, Synthesis, Evaluation — you need knowledge, how can you ask questions if you don't have a data base? So, between September and December, I provide them with a knowledge base, and after Christmas we start to think.

It's true that many students lack basic knowledge about the past. And plugging gaping holes in student background knowledge is how many savvy history teachers begin each new unit. But does that kind of knowledge — the sort typically purveyed in worksheets — always pave the way to higher-order thinking?

Those who go back and read Bloom will find much to praise. That knowledge is the foundation for all further acts of mind, for instance, is a fundamentally sound concept. But our concern is about Bloom *in practice* — the way that the Taxonomy takes on a life of its own. Pyramids, after all, are images that point in one direction. Placing knowledge at the bottom often sends the wrong message.

In a study we completed several years ago, we ob-

served a variety of Advanced Placement (AP) classrooms in Washington's Puget Sound. In those classes, we tested students on the released items from the National Assessment of Educational Progress, as well as the AP test itself, and selected as participants in our study only those who did well. Over the course of 2½ years, we followed these students in the hope that we would learn something about how they approached history.

One case from the study — an interview with Jacob, an articulate AP student from a private high school — is both exemplary and illustrative. After the AP exam, on which Jacob scored a 4, we gave him a document he'd never seen — a proclamation made by President Benjamin Harrison about Discovery Day in 1892. We asked him to read the piece aloud, and to articulate, as he read, what he thought about the document and its historical context.

FIG. 1.
Text of Historical Document Presented to Students

DISCOVERY DAY

OCTOBER 21 PROCLAIMED A NATIONAL HOLIDAY BY
THE PRESIDENT

(WASHINGTON, JULY 21) The following proclamation was issued this afternoon by the President:

I, Benjamin Harrison, President of the United States of America . . . do hereby appoint Friday, Oct. 21, 1892, the 400th anniversary of the discovery of America by Columbus, as a general holiday for the people of the United States. On that day, let the people so far as possible cease from toil and devote themselves to such exercises as may best express honor to the discoverer and their appreciation of the great achievements of the four completed centuries of American life.

Columbus stood in his age as the pioneer of progress and enlightenment. The system of universal education is in our age the most prominent and salutary feature of the spirit of enlightenment, and it is peculiarly appropriate that the schools be made by the people the center of the day's demonstration.

Let the national flag float over every school house in the country, and the exercises be such as shall impress upon our youth the patriotic duties of American citizenship.

In the churches and in the other places of assembly of the people, let there be expressions of gratitude to Divine Providence for the devout faith of the discoverer, and for the Divine care and guidance which has directed our history and so abundantly blessed our people.

The New York Times, July 22, 1892: 8

Jacob's response was illuminating. "The first thing that jumps out is that Columbus is a pioneer of 'progress and enlightenment,'" Jacob noted, "which was certainly one way of looking at it, but

from what I've learned, his goals were not entirely noble. Just get rich, whatever. Find a way to the Indies. Show that the Earth wasn't flat.

"And then," Jacob grumbled, "it praises him for his devout faith. . . he claimed to be a true Christian, but he also captured and tortured Indians, so he wasn't maybe as noble as this is having him be."

Knowledge possessed does not automatically mean knowledge deployed.

Asked if he noticed anything else, Jacob added: "And the fact that it's becoming a holiday that we're supposed to revere, that's even worse!"

His response was typical among this group of bright, articulate students. And in many ways, his response is ideal. He immediately marshals background knowledge about Columbus and uses that knowledge to challenge the image of the "discoverer" in Harrison's proclamation. Clearly he "comprehends" the document and, in fact, starts on his ascent of the Bloomian peak, comparing the description with his own knowledge (Application). He recognizes that there are multiple ways of understanding Columbus and sees that the image of "pioneer of progress and Enlightenment" is one among several possible interpretations (Analysis and Synthesis). Ultimately, he casts doubt on the image, challenging it with an alternative critical of Columbus (Evaluation).

Relying on his background knowledge about Columbus and using that knowledge as a touchstone for evaluating the document's contents, Jacob proceeds through different kinds of thinking. And his response, though still rough around the edges, seems at first blush like critical thinking in the raw.

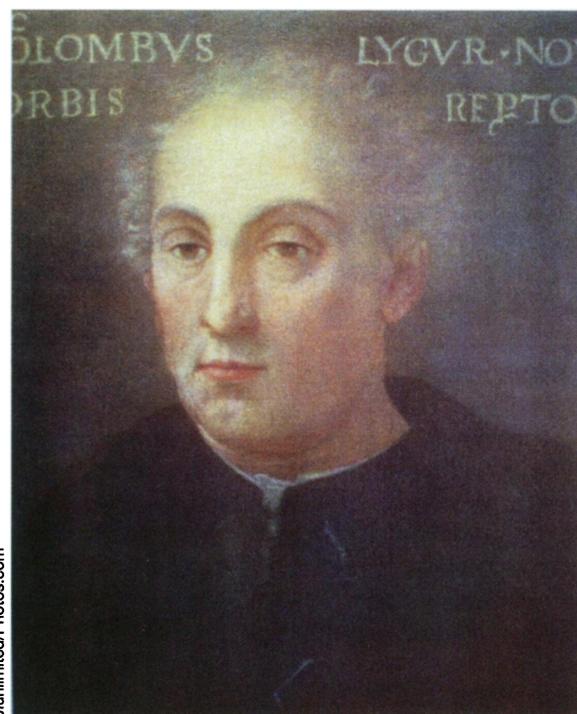
Indeed, when we showed Jacob's thinking to a focus group of teachers, this is precisely how many characterized it.

Given how passive students can be when presented with new information, this isn't surprising. Jacob engaged energetically with the material, expressed a forceful opinion about Columbus' voyage, and didn't accept the document at face value. No wonder many teachers viewed Jacob's response favorably.

But what if this document has little to do with 1492? Or. . . even with Columbus himself?

THROUGH A HISTORICAL LENS

Asked what the same document was about, a group of history graduate students saw something different: "the expansion of the heroic pantheon to include former undesirables," "the shameless appeal



No contemporary painting of Columbus has survived. This painting, called the Jovian Portrait, was painted about 50 years after Columbus' death and does not match any contemporary description of the admiral.

to superheroes in order to gain votes in urban centers," and "the beginning of Pan-Whiteness in post-bellum America."

Huh?

Pantheons? Shameless appeals? Pan-Whiteness? Did they even read the same document?

To be clear, these graduate students were not specialists in American history. In fact, they possessed no more specialized knowledge of Columbus than Jacob or his AP U.S. History classmates. But what the historians did possess was the ability to think *historically* about the documents.

Right from the start, it's clear what the young historians are doing differently: "Okay, it's 1892."

There are many moves that separate the historians' readings from Jacob's, but there is none more crucial, none more basic than these three words. Without a doubt, Jacob knew the story of Columbus. But he was unable to see the document as a product of unique historical circumstances. To Jacob, the document was about Columbus. But to the historians, critical thinking meant revealing the unseen — asking questions and piecing together something they didn't yet know.

To them, Harrison's document was born of a particular moment. And this moment, 1892, not 1492 or even 1992, means something. But what exactly does it mean? This is where the historians start: with questions.

“So it’s the 400th anniversary. Benjamin Harrison. Curious. It’s not on the front page. Why? But it is in *The New York Times*, the so-called national newspaper.”

The young historians puzzle, search, piece together context. The story’s not important enough to be on the front page. What might this mean? Is it significant? Repeatedly, they ask “why?” In dozens of interviews with high school students, not a single one ever asked why.

One historian begins making connections:

The 1890s, the beginning of the Progressive Era, end of the century, closing of the frontier, Frederick Jackson Turner, you’ve got the Columbian Exposition coming up the following year. Biggest wave of immigration in U.S. history.

“That’s it!”

That’s it? That’s what?

The young historian was referring to the makeover America was getting at the end of the 19th century. Unprecedented immigration had transformed the country’s look overnight; in the 30 years between 1880 and 1910, 18 million newcomers came to America’s shores. And these immigrants were of a different breed — “Slavs,” “Alpines,” “Hebrews,” “Iberics,” or “Mediterraneans.” They were

swarthy, spoke strange languages, and worshipped God differently than the Protestant majority.

Jacob knew this story, at least in broad contour. The great wave of immigration, Ellis Island, Emma Lazarus’ “The New Colossus” were stock topics in his AP class, as well as in nearly every other 11th-grade history class across the nation. Yet, to access this information and harness its power, Jacob would have had to think about “Discovery Day” historically.

Pyramids are images that point in one direction. Placing knowledge at the bottom often sends the wrong message.

At the beginning of the 1880s, about 300,000 Italians were in the United States; 10 years later, that number had doubled. Joined by a swelling Irish (“Celtic”) community, they formed a massive new political interest group — urban Catholics. But though their numbers were strong, Catholics were still much maligned as un-American “papists.”

And yet, Catholics had an ace in the hole in Columbus. What better way to express their Amer-

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icanism than to tie themselves to the Catholic “discoverer” of the New World? Despite their national origins in Ireland, Germany, Poland, or elsewhere, ties to Columbus made these new immigrants “real” Americans. Nothing exemplified this more clearly than the naming of what would become the nation’s largest pan-Catholic fraternal organization: the Knights of Columbus, founded in 1882.

The pyramid treats knowledge with all the glamour of a dank concrete basement — necessary for a house’s foundation but hardly the place to host honored guests.

The historians reasoned that embracing Columbus was a political move. By establishing “Discovery Day,” Harrison was hoping to usher into the party the millions of new voters who saw Columbus as a hero. If the historians had cared to verify their hunches, they would have found that they were on to something. By the time Harrison’s “Discovery Day” came along, it merely sanctioned the many celebrations already in place. San Francisco’s Italians celebrated their first Discovery Day in 1869, and in 1876, Philadelphia’s Italians erected a statue of Columbus in that city’s Fairmount Park. Well before the 1892 proclamation, the celebration was on the calendar in St. Louis, Boston, Cincinnati, and New Orleans. Harrison wasn’t breaking ground; he was pandering.

Problem solved.

Picture painted.

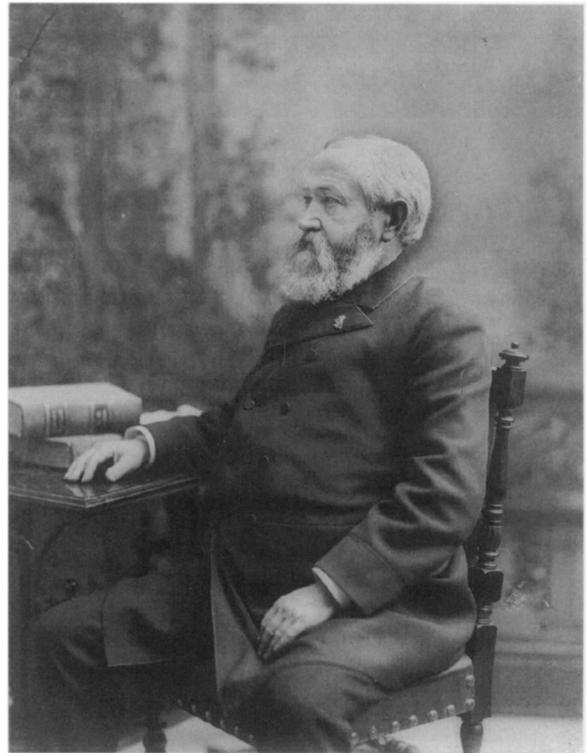
Knowledge gained.

That’s critical thinking.

KNOWLEDGE DEPLOYED

Let’s be fair. What 17-year-old could be expected to possess all of that contextual knowledge? To be sure, specialists in 19th-century American history would have known intricate details like the fact that Harrison wooed Irish Catholics by endorsing home rule in Ireland in the 1892 Republican Platform, or that he organized the Irish-American Protective Tariff League. But remember: We didn’t quiz specialists. We asked graduate students writing their theses on such topics as French colonialists in Tunisia and the aftershocks of the Meiji Restoration. If anything, Jacob and his AP colleagues were at a factual *advantage* when it came to some of the finer details of U.S. history.

Yet knowledge possessed does not automatically



Portrait of President Benjamin Harrison. George Prince, 1888. (Courtesy of the Library of Congress, LC-USZ62-7611.)

mean knowledge deployed. Why would students think Ellis Island and Emma Lazarus if they looked past 1892 and saw only 1492?

To call Jacob’s reading an instance of critical thinking is true — by half. It’s critical, but there’s little thinking in it. Sure Jacob brought some background knowledge and strong opinions to this document, but he didn’t know how to get at the document’s untold story.

The historians saw the document differently. To them, questions begin at the base of the pyramid: What am I looking at, a diary? A secret communiqué? A government pronouncement? When was it written and what else was going on at the time? For them, critical thinking meant determining the knowledge they needed to better understand this document and its time.

“Was there a precedent to Harrison’s declaration?”

“Did individual states make Oct. 12 a holiday before the federal declaration?”

“If so, was it in states with the largest population of Catholics?”

“Was there nativist opposition to Harrison’s Proclamation?”

“Did the proclamation cause anti-Catholic backlash?”

“How and when did the event go from a Proclamation in 1892 to becoming a national holiday?”

These questions — what we refer to elsewhere as the “the specification of ignorance” — distinguished historians from bright high school students, who typically encountered this document and issued judgments. Such pronouncements, like the judge’s gavel, close the case on history.

Not so with historians. Faced with an unfamiliar document, they framed questions that would help them understand the fullness of the historical moment. They emerged from the text curious, puzzled, and provoked. They ended their reading, in other words, ready to learn.

For students of history, the pyramid posters have it wrong — or at least upside down. Putting knowledge at the base implies that the world of ideas is fully known and that critical thinking involves gathering known facts to cast judgment. The pyramid treats knowledge with all the glamour of a dank concrete basement — necessary for a house’s foundation but hardly the place to host honored guests. Such an approach inverts the process of historical thinking and distorts why we study history in the first place. New knowledge, the prize of intellectual activity, gets locked in the basement.

To learn more . . .

Reading Like a Historian intervention in San Francisco
www.youtube.com/watch?v=wWz08mVUlt8

Historical Thinking Matters
www.historicalthinkingmatters.org

Stanford History Education Group
<http://sheg.stanford.edu>

National History Education Clearinghouse
<http://teachinghistory.org>

Of course knowledge is a prerequisite to critical thinking. But most important, knowledge represents its highest aim. And there can be no new knowledge without new questions.

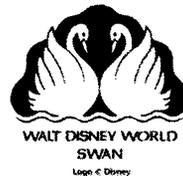
The pyramid narrows to a point. Turning it on its head opens up new worlds. **K**

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