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## CURRICULUM

# If Skills Are the New Canon, Are Colleges Teaching Them?

**Most people agree that students should learn skills like critical thinking. But courses aren't set up that way.**

By *Dan Berrett* | APRIL 03, 2016 ✓ PREMIUM

ATLANTA



Dustin Thomas Chambers for The Chronicle

Evidence means different things in different disciplines. In Sally Radell's "Connecting the Mind to the Moving Body," primary evidence is collected through physical sensations.

**T**he essence of a university education used to fit across a five-foot shelf.

That was the space required for the 51 volumes of the *Harvard Classics* compiled by the university's president, Charles William Eliot, and published in 1909.

Plato, Machiavelli, Milton, Darwin: Each volume, Eliot explained, was vital. The compendium presented "the stream of

the world's thought," he wrote, such that "the observant reader's mind shall be enriched, refined, and fertilized by it."

Spending 15 minutes a day reading the texts was tantamount, Eliot argued, to a liberal education. Many of the works made up the core curriculum at the nation's leading universities.

Over time, though, the canon unraveled, pulled apart by disparate forces. By the latter half of the 20th century, students chafed at a core curriculum and demanded more control over their education. "Buffet style" distribution requirements became the norm.

Meanwhile, knowledge was proliferating, from Darwin to DNA. In the 1980s, scholarly consensus fractured as humanists fought the canon wars over what qualified as seminal works, and whether the dead white men whose words filled Eliot's volumes still reigned.

Agreeing on an essential body of knowledge came to seem impossible, but over the past decade or two a new consensus has emerged: that colleges ought to develop in students a set of skills.

Today just about everyone — administrators, students, parents, employers, policy makers, and most professors — has accepted the notion that broad, transferrable skills are the desired product of college. Courses reflect that: An introductory survey of American history, for example, might be supplanted by a niche offering like "Baseball in the 1950s," because either one can supposedly teach students how to think critically and write well. And so course content becomes little more than a delivery device for skills.



Anthony J. Martin

In an environmental-science course at Emory U., students learn to make inferences about animal behavior using indirect evidence like this photo of tracks.

To be sure, colleges still care about specific areas of knowledge: Most institutions have learning outcomes for the sciences, mathematics, and the humanities, according to the Association of American Colleges & Universities. But learning outcomes for writing, critical-thinking, analytical-reasoning, and quantitative-reasoning skills are now even more common, almost universal.

In short, skills have become the new canon.

The structure of higher education and the training and motivations of most faculty members, however, tend to operate under the old assumptions. Content and disciplines are still mainstays. Students still take courses from the mathematics faculty, not the quantitative-reasoning department. And course material has a depth and allure that skills don't.

Analytical reasoning doesn't pulse with the mind-expanding genius of Einstein. Lovers swoon to poetry, not oral-communication proficiency.

If skills are the new canon, curricula as they're now configured often fall short of instilling them. Educators and associations have called for change. Nicholas Lemann, dean emeritus of Columbia University's Graduate School of Journalism, advocated in a recent essay in *The Chronicle Review* for "a canon of methods," like the interpretation of meaning, numeracy, visual and spatial grammar and logic, and information literacy.

Unless they're explicitly designed to teach such methods, most courses may not do the trick. Mr. Lemann argued for "developing courses that are specifically aimed at creating those capabilities, rather than declaring that existing courses that are notionally about something

else will confer them."

Many academic leaders are reaching a similar conclusion. On a broad scale, national faculty-led efforts like the Lumina Foundation-supported Tuning project define disciplines' core elements in terms of skills, knowledge, and habits of mind. Individual campuses are talking about that, too. At Nebraska Wesleyan University, students take courses focused on verbally representing quantitative thought, for example, and the fundamentals of communication. At Emory University, faculty members and administrators have chosen to focus on developing one skill: using and evaluating evidence.

How well are colleges teaching this new canon? Does it require wholesale reimagining of courses, or do subtle tweaks suffice? And what is lost when some content gets left out?



Dustin Thomas Chambers for The Chronicle

Students at Emory U. learn the skill of evaluating evidence in various ways, including through physical sensation.

One Wednesday this semester, students here at Emory stared up at a projected photograph of an animal's paw print in mud. Anthony J. Martin, a professor of practice in environmental sciences, had snapped it that morning in nearby Lullwater Park, a 185-acre preserve. Dirt still clung to his mocs.

His course "How to Interpret Behavior You Did Not See" is on ichnology, the study of animal traces. Evidence carries a particular

meaning in that field: It's making inferences about animal behavior using indirect evidence like tracks and scat. Mr. Martin rarely misses an opportunity to highlight the reasoning process.

The image on the screen included the professor's yellow, pocket-size spiral-bound notebook. He handed it to a student in the front row and asked him to measure it, so the class could judge the size of the print.

Mr. Martin then followed with a series of questions about the mark: its shape, the placement of the heel pad, the track pattern. What did those things say about the animal? Could it have been agitated, running, based on how far apart its tracks were?

A few of his students thumbed through their copies of the *Falcon Guide to Scats and Tracks of the Southeast*. They reasoned that the track's size and oval shape strongly suggested a coyote.

"That's our hypothesis," Mr. Martin said, citing the first step in the scientific method. But what else could it be?

The track was too big to be a fox's. He pushed his students to consider other sources of data, like the preserve's topography, soil, vegetation, and hydrology. The prints appeared by the side of the road, so maybe a dog had made them. Water was pooled in the impressions. How recently had it rained? Was the creature nocturnal or diurnal? "You want to be careful," he said, "about confirmation bias."

Mr. Martin has taught this course for more than a decade. His original goal was to get students outdoors and paying careful attention to the natural world.

Then Emory started its campuswide skills-teaching effort, the Nature of Evidence. Mr. Martin, intrigued, volunteered to retool the course. His is one of 27 freshman seminars across 22 departments now offered in the effort's first year. Each one puts evidence at the forefront, exploring how a discipline defines, uses, and evaluates it. The courses make teaching and learning evidence the explicit goal.

Instructors receive a \$3,000 stipend to redesign a course, participate in workshops, and submit graded assignments for assessment. Emory is also surveying students and faculty, analyzing assignments, and administering the Watson-Glaser test of critical thinking to students before and after the course to chart their growth relative to a control group of other freshmen at the university.

Mr. Martin tries to foster skills like careful observation and evidence-based reasoning, and the habits of taking in new information and revising assumptions. "We constantly ask students, How would you evaluate this evidence?" he says. "What would you need to support this interpretation — and how can it be wrong?"

Emory's focus on evidence grew out of what could have been an exercise in bureaucratic box-checking. The university had to develop a quality-enhancement plan for reaccreditation by the Southern Association of Colleges and Schools.

The faculty committee developing the plan widely solicited ideas for how to improve student learning, winnowing 170 responses. After brainstorming with a fellow art historian, Bonna Daix Wescoat proposed emphasizing "primary evidence and original thought." Evidence is foundational to every discipline, she said. "Not a single person would be left out."

A few faculty members balked, arguing that primary evidence was too narrow a topic or irrelevant to their discipline. The idea became "The Nature of Evidence: How Do You Know?"

Students can now watch short videos on the subject, attend a town-hall event, take part in debates, even wear a T-shirt. At the center of the effort, first-year students can choose an evidence-themed course as their required freshman seminar.

One reason evidence gained traction is that faculty members across disciplines seemed to quickly grasp its importance to their teaching and research, says Tracy L. Scott, a senior lecturer in sociology and director of the university's quality-enhancement plan. "It's something they're thinking about all the time."

But on many campuses, that thinking doesn't necessarily make its way into instruction. The problem is that aspiring professors spend years in graduate school homing in on a discrete area of knowledge, says Terrel L. Rhodes, vice president of the Office of Quality, Curriculum, and Assessment for AAC&U.

"It's all about becoming a content expert," he says. Over time, scholars absorb their discipline's ways of knowing, including how to use and judge evidence. Finding and vetting evidence becomes "second nature to us," he says. "It isn't for our students."

By the time professors find themselves in front of a class, they've forgotten what it was like all those years ago, before the skill became a reflex.

For many Emory students, evidence had little broad significance, according to a survey by the university. Most students said the term referred to legal proceedings.

"With the mushrooming of information on the Internet, students aren't very savvy about figuring out how they know anything," says Ms. Scott. Is what they see online true or false? Where does it come from?

"This generation of students is faced with this overload of information," she says. "They don't know how to distinguish good evidence from bad."

Yet undergraduates may assume they can already judge evidence. DeVonnae' Woodson-Heard, a senior sociology and psychology major, found Emory's whole endeavor unnecessary when she first heard about it as a member of the campus advisory committee. "What do you mean?" she remembered thinking to herself. "We do this all day."

The more she thought about it, the more she realized that using evidence was just an assumption in courses, not often explicitly taught. This year she has noticed a ripple effect: Even professors who aren't teaching the freshman seminars are more deliberately discussing evidence.

The topic has spilled out farther, which is especially handy during a presidential campaign. "We didn't want it to just be this thing in the sky that you philosophize about," says Ms. Woodson-Heard, "and then leave in the classroom."

For the effort to work, Ms. Scott has found that flexibility matters, with faculty members defining what evidence means in their own disciplines. In the humanities, that's often supporting an argument through textual analysis. In economics, evidence might be tested by microeconomic theories — or challenge them. "Maybe we didn't do the model correctly, or maybe the model isn't the right one," says Christina M. DePasquale, an assistant professor of economics. "Real life has all of these confounding factors."

As different as disciplinary definitions of evidence may be, faculty members here say the effort has given them a curricular focus and shared vocabulary, allowing them to discuss teaching and learning in new ways.

The new focus has also revealed shortcomings. Several Emory professors said they've come to realize they weren't teaching how to analyze evidence as explicitly as they thought they were.

Robert Goddard used to focus on teaching the content of his course "Tourist Meets Native," which examines tourism as both an economic and a cultural experience. If students developed skills along the way, it was through osmosis. And if they didn't, Mr. Goddard, a senior lecturer in Latin American and Caribbean studies, would tell himself that "sometimes you get kids who get it, and sometimes you don't."

This semester, emphasizing the skill of using and evaluating evidence has made it plainer to see when students are struggling. Mr. Goddard set out to teach two methods of understanding evidence, quantitative (analyzing hotel bookings and growth rates) and symbolic (grounded in cultural criticism).

Few of his students could pull off symbolic analysis, he says. And the new approach has reframed his thinking. "Maybe I'm not presenting it successfully," he says.



Courtesy of Subha Xavier

In a cultural-studies course on race in France, students examined the changing portrayal of African soldiers in ads for Banania, a breakfast mix, from (left to right) 1915, 1936, and 2000. They used that evidence to analyze the poem "To Senegalese Sharpshooters Who Died for France," by Léopold Sédar Senghor.

In a recent class, he discussed how some Caribbean states had shifted their economies from mining bauxite to harvesting sugar to serving tourists, and cited gross-domestic product as a barometer of economic health.

Is GDP really the best measure of a nation's economic health? a student asked, referring to the human-development index, which measures average life span, health, standard of living, and years of schooling. Mr. Goddard thought for a moment but dismissed GDP as less transparent, then moved on.

Reflecting on the question a month later, he wondered if the class should have lingered more on moments like that one. He realized he was teaching too broadly, a mile wide and an inch deep.

As the semester has unfolded, he has changed direction. Instead of asking students to study some aspect of tourism in the Caribbean, he narrowed the focus considerably. Inspired by a chance meeting with a marine biologist here, Mr. Goddard assigned a research project on the impact of tourism on coral reefs. The tighter focus, he thinks, will give students a better opportunity to engage more deeply with evidence.

At the same time, he is ambivalent about what happens when skills take precedence. "I wonder if we are doing a disservice to the students by not having a more coherent, uniform body of content to deliver," he says. "One of the things we're doing is losing common cultural reference points."

Like many professors at Emory, Subha Xavier says basing a course on evidence hasn't required wholesale changes as much as tweaks. Her focus is still on constructing and defending an argument. She just uses the word "evidence" more than she used to.

During a recent meeting of "Paris: City of Lights or Darkness?," a cultural-studies course on race, Ms. Xavier guided her students through a poem, "To Senegalese Sharpshooters Who Died for France," by Léopold Sédar Senghor, a soldier and cultural theorist who was the first president of Senegal.

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## **“One of the things we're doing is losing common cultural reference points.”**

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To make sense of the poem, Ms. Xavier, an assistant professor of French, offered an overview of the sharpshooters, who fought on behalf of France against other Africans resisting colonization. She described their recruitment, equipment, and mortality rates. She

also brought in other texts, including a stanza from Senghor's anticolonialist "Liminary Poem": "I will tear off the Banania grins from all the walls of France."

The Banania grin, an illustration of a soldier's smiling face that's used to sell a drink by that name, was an important piece of evidence to understand Senghor's elegy to the sharpshooters. It brought to the surface decades of Senegalese rage and frustration that lurked beneath the surface of his ode.

Ms. Xavier showed her students more primary sources: recruitment posters from the turn of the last century that depicted a white French soldier, in boots and a helmet, next to a Senegalese one, with no shoes and a simple red hat.

That red hat became iconic in marketing Banania, a breakfast mix of banana and chocolate popular in France and its colonies for more than a century. Students examined an advertisement from 1915, when the product started using an image of a Senegalese soldier, smiling with a bowl of Banania in a lush field. A student said it made the soldier appear heroic but childlike.

Ms. Xavier projected another ad from 20 years later. This time, the image was more cartoonish. One more, from 2000, still with the red hat, was a full-blown caricature.

The students split into groups. Use what we've learned about the advertisement to analyze the text of the poem, Ms. Xavier told them.

"Putting one text over another," she said, like a magnifying glass, "can make things evident that you wouldn't have seen before."

Ms. Xavier has no love for the traditional canon. Her course features the kinds of material left out of Eliot's volumes: African poetry, films, and music, and ephemera like posters and ads.

But her goals aren't far from Eliot's either. The point is to produce college graduates who can think, analyze, and write — whether their subject is Beowulf or Banania.

If Ms. Xavier doesn't simply lead her students to the works Eliot described as inevitably educational, it means she does something at least as important: teach.

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