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RIGOR WITH JOY?

Rethinking the American High School

When Jal Mehta and Sarah Fine embarked on a six-year study of 30 of the most effective public high schools in the United States, what they found among students was largely "bored, disengaged compliance," Mehta recalls. The dominant pattern of instruction is rote transmission: worksheets, multiple-choice questions, and teachers lecturing. Objective comparisons to other countries confirm the mediocrity of this model: U.S. high-school students score near the bottom in math, and are just middling in reading and science. "Not surprisingly," he says, students consistently called lectures a "very disengaging mode." But there were bright spots: classrooms where "teachers had moved away from that by dint of their own skill and inventiveness."

In every school, the researchers found at least one or two settings where students were engaged and inspired by what they were learning—often in activities outside the classroom. By the end of their study's first year, Mehta, an associate professor at the Harvard Graduate School of Education, and Fine, who began the project as Mehta's doctoral student (and is now director of a teacher preparation program associated with a network of schools in San Diego), decided to focus on the bright spots. Their book about the project, *In Search of Deeper Learning: The Quest to Remake the American High School* (Harvard), weaves analysis and richly descriptive vignettes together in the most comprehensive assessment of the topic since the 1980s.

The authors offer a thoughtful critique of three of the most successful schools, pseudonymously named Dewey High, No Excuses High, and I.B. High. The first, which follows the pedagogical philosophy of John Dewey, LL.D. '32, is characterized by project-based learning that works because it actively engages students in their own education. No Excuses High is strict, demanding, and goal-oriented. Tight discipline and control, paired with teacher-directed learning tasks, have proven highly successful by quantitative measures: the poor urban students who attend outscore their suburban counterparts on the SAT, Advanced Placement (AP), and state tests, and all go on to college. I.B. High is modeled on the International Baccalaureate (IB) curriculum originally created by Swiss educators for the children of mobile global elites; it has been successfully adapted in the United States for use in high-poverty-area schools. The rigorous, deeply intellectual curriculum asks students to participate in finding the answers to open-ended questions through thoughtful analysis.

But each system also has drawbacks. Dewey High's project-based teaching can lack rigor: students folding origami in math class, for example, were unable to connect their activities to any broader learning goals. No Excuses High, while effective, was a joyless place to learn: neither students nor teachers were happy, and the program failed to engage students as participants in their own education. Mehta and Fine write that it reaches floors—but not ceilings. I.B. High was perhaps the most promising of the three

Illustration by Robert Neubecker

approaches (the IB curriculum has been adopted in about 2 percent of American high schools), but worked best when practitioners trained in its underlying precepts were present to help other teachers connect the curriculum to its broader goals of creating thoughtful citizens of the world.

The very best learning environments in each of these schools shared several features. "First, *purpose*," says Mehta. "The clear goal that is motivating to students in the present": producing a play, filming a documentary, or understanding Descartes's statement, "I think, therefore I am." In the latter case, students wondered, "What if they were in a vegetative state?" and asked, "Does a computer think?" "Purposes can be concrete or intellectual," says Mehta, "but they have to be what motivates the action."

He and Fine identify three additional elements fostering learning: *mastery*, *identity*, and *creativity*. "Mastery is developing knowledge or skill in a domain," he says. "Identity is becoming more invested in thinking of yourself as someone who does that kind of work, moving from a conception of oneself as 'I'm someone who swims,' to 'I'm a swimmer.' And then creativity is not just taking in knowledge, but making something from it." Frequently, deep learning was facilitated by an apprentice-type teaching model in which students learned from teachers and even peers with superior expertise in a particular domain.

The obstacles to deep learning are not necessarily intrinsic, Mehta and Fine believe, and they illustrate that point with a story. During one visit to a nonselective IB-for-all school, the researchers split up so each could shadow one student for a day. "We would come back together once or twice during the course of the day...to share data, impressions, and to sharpen our questions," reports Fine, who followed a higher-skilled student. Mehta told Fine that he had seen a history teacher project a fill-in-the-blank worksheet on the board and then write in the answers, which the students copied down. "There was no cognitive work at all, not even memorization." Then Fine described an amazing class *she'd* seen: "They had put Andrew Jackson on trial the previous day, and were having rich discussions, debriefing the debate, and getting ready to start a writing task that asked them to take a stand" on Jackson and the Trail of Tears.

They were sharing these stories in the school copy center, when a woman walked in—and they realized it was the same woman who had been teaching two very different classes across tracks. "It was a profound moment for us," says Fine. "It was as though she had a whole different set of working assumptions, and a whole different repertory of pedagogy, depending on whom she was working with." The teacher, under administrative pressure, was "trying to get those [less adept] kids to pass a fact-heavy exam."

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This is at least part of the reason so little creative experimentation occurs in U.S. high schools, the researchers believe. Teachers feel hamstrung by an "ecosystem of constraint": externally imposed curricular requirements, standardized testing benchmarks, and metrics that colleges use in admissions processes. These external forces are extremely normative, explains Fine; teaching well within that context, as within any context, requires skill, mentorship, and practice.

"Every teacher we talked to, to a person," she says, "expressed a desire to have their classroom be a place where powerful learning was happening, regardless of what kind of kids they were teaching. They all wanted it." The challenge, she says, is that often "the system responds to perceived threats by asserting more control, rather than allowing for a natural release that empowers kids to make more choices and to take ownership of their education." —JONATHAN SHAW

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PREDICTING PERFORMANCE

Reading the Market

FINANCIAL MARKETS can sometimes seem impenetrable, subject to unpredictable forces. At Harvard Business School, however, two researchers believe they have found a means of anticipating the movements of individual companies' stock prices, at least. Simmons professor of business administration Lauren Cohen and Coleman professor of financial management Christopher Malloy claim that firms publish reliable indications of their future financial performance in yearly and quarterly reports. But—as they write in their recent working paper "Lazy Prices" (coauthored with Quoc Nguyen, now an assistant professor at DePaul University)—investors simply are not paying enough attention to notice.

By law, all publicly traded firms publish 10K (annual) and 10Q (quarterly) reports, thereby alerting shareholders to significant risks that could affect returns. Investors can sue over the omission of foreseeable problems, giving firms strong incentives to include even the tiniest details. As a result, the reports have lengthened over time: Apple Inc.'s 2018 iteration runs 85 pages. They are also dense and repetitive, with many firms printing nearly identical reports year after year.

Yet Cohen and Malloy found significance in the *exceptions* to this uniformity. Analyzing thousands of documents beginning with 1995, they measured the year-to year changes firms make in the language of their reports, finding that variability "significantly predicts future negative earnings surprises." (The vast majority of alterations are negative in tone.) When firms make such changes, Cohen explained in an interview, "that has a huge amount of information for future firm operations and for returns." In some cases, the predictive nature of alterations is only