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Habits of Mind: Lessons for the Long Term

With the growing emphasis on job-related skills, some professors argue, the cultivation of important intellectual traits is getting short shrift

By Dan Berrett

Many education experts who seek to define the value of a college degree seize on metrics that can be quantified in the short term.

Some look at levels of student engagement, while others calculate gains on standardized tests of critical-thinking skills. Still others have started [analyzing the salaries](#) that recent graduates earn.

A different sort of approach, quietly gaining steam, takes a longer—and less measurable—view.

In this approach, the real value of a college education is how it affects the way students think and act, ideally for years after they graduate. Shape your students' underlying attitudes and intellectual characteristics, the theory goes, and a lifetime of deep and lasting learning will follow.

These characteristics go by different names, like intellectual virtues or habits of mind. And they originate in several disciplines, including education, philosophy, and psychology. They all boil down to an emphasis on underlying traits: curiosity, open-mindedness, and intellectual courage, thoroughness, and humility.

Habits like those have been attracting increased attention at all levels of education. In his best-selling book *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character*, Paul Tough argues that children benefit from developing noncognitive traits of character. In higher education, intellectual virtues touch on both dispositions and cognitive qualities. References to habits of mind and ways of thinking have been cropping up regularly in descriptions of revised core curricula, course learning outcomes, and syllabi.

A conference taking place next year at Loyola Marymount University, in Los Angeles, is part of an effort to develop and apply a carefully defined model of intellectual virtues to education. The three-year project is supported by a \$1-million grant from the Templeton Foundation.

Proponents of teaching habits of mind say the approach bridges a divide in education between emphasizing content and focusing on the development of transferable skills, particularly critical thinking. An approach that values habits of mind is increasingly valuable, they say, as open-mindedness and intellectual courage become rarer in a civic culture that has grown more polarized and doctrinaire.

Habits like those are difficult to capture in an assessment. But they are what students ultimately carry with them after they graduate, says Ron Ritchhart, a senior researcher for Project Zero, an educational research group at Harvard University's Graduate School of Education.

"A lot of the skills and knowledge that aren't used will go away," Mr. Ritchhart says. "The things that will be left are the habits of mind, the ways of thinking, the way you operate within a discipline or a field."

Lessons in Virtue

Faculty members teach intellectual virtues both explicitly and obliquely.

Heather D. Battaly, a professor of philosophy at California State University at Fullerton, dedicates several lessons in her "Introduction to Logic" course to intellectual virtues.

She assigns her students the task of maintaining a log in which they keep track of their intellectual acts in and out of class. What they record can be simple things: how they resolved a dispute with a friend or how they digest the news. The students have to describe their motivations and determine whether or not they exhibited intellectual virtues.

Ms. Battaly also draws on literature and pop culture. During a recent class, she showed part of an episode of the television medical drama *House* in which Dr. House and his fellow physicians puzzle over their patient, a college student with dangerously low blood

pressure. The characters generate hypotheses, consider and dismiss evidence, and hash out alternative theories as new information emerges.

"That's a really good way of showing students what counts as an intellectual action," she says.

Rob Hackemack, a junior majoring in computer science, was initially surprised when Ms. Battaly aired the clip in class. But as he thought about it further, the fictitious doctor's relentlessness in search of the truth paired with his murky personal ethics illustrated the difference between intellectual virtues and moral ones. Dr. House often insults his patients and colleagues, but he will scuttle his pet theory about a medical condition if the evidence doesn't support it.

"He's the perfect example of someone who is an enigma as far as virtue goes," Mr. Hackemack says. "He seems like he's a jerk, but he's saving people's lives."

Jason Baehr, an associate professor of philosophy at Loyola Marymount who is leading the project financed by Templeton, tries to create a culture in his class in which virtues like curiosity, wonder, and intellectual honesty are explicitly discussed.

"When I teach," he says, "I stop a lot to think and wonder with students, to ask questions and get to why."

A couple of years ago, two students in his course were debating the problem of evil and whether the existence of suffering renders God's existence improbable or even impossible. Each student thought the other was fundamentally irrational, Mr. Baehr recalls.

One student found a scholarly article defending God to be unpersuasive, but when a classmate mounted a more plausible argument, her jaw dropped. Mr. Baehr still relishes the dynamic that unfolded. The student had been absolutely certain of her perspective. But, he says, her mind had been trained to be receptive to evidence in such a way that, when a sound counterargument was presented, she could take it in, even though she ultimately held to her position.

"I want everyone to see what just happened there," Mr. Baehr remembers telling his students. "You had a strong opinion and you

encountered a strong opinion on the other side. That's what I'm talking about with intellectual characters and virtues."

For philosophers, analyzing how people think is a natural subject of study. Faculty in other disciplines tend to teach intellectual virtues more indirectly.

Barry Schwartz, a professor of social theory and social action at Swarthmore College, teaches those habits by embodying them. To demonstrate what a love of truth looks like, he takes bold positions to provoke his students to stand up for what they believe to be true, or to get them to reconsider their assumptions.

In a class about decision making, for example, Mr. Schwartz explains the unexpected benefits of stereotyping, as a tool to put events, objects, and people into manageable categories—the only way to make sense of a complex and changing world. While stereotyping tends to be seen in wholly negative terms, his argument encourages his students to look at it with fresh eyes, which moves them away from intellectual rigidity.

When teaching the work of other scholars, Mr. Schwartz highlights people like Karl Popper and Martin E.P. Seligman, who he says have shown a willingness to risk being wrong in pursuit of the truth.

"I make a point of saying that this is science at its best," says Mr. Schwartz, who has written about the value of these virtues, including for *The Chronicle*. "This is intellectual courage."

The willingness to take intellectual risks can be rare among students because they may be disengaged or, Mr. Schwartz says, they are fearful of taking a controversial stand and earning a bad grade.

Faculty members also tend to plant themselves on safe intellectual turf and not let go, says Clifton F. Conrad, a professor of higher education at the University of Wisconsin at Madison and co-author of the book *Cultivating Inquiry-Driven Learners*.

While increasingly precarious job and tenure prospects are a big part of the problem, Mr. Conrad says that many faculty place more value on appearing learned than on learning. They also emphasize the teaching of content, which can lead to what he calls "knowledge stuffing." An example is a history professor who drills his students on dates and great men from a particular era but does not ask his

students to sort through the competing interpretations of that era or the larger forces that caused changes to occur.

"When we just emphasize knowledge consumption, what we're often doing is undermining the very skills that develop an inquiry-driven learner," Mr. Clifton says. "We spend far too much time on the what."

An emphasis on content is in keeping with a long-standing view of the purpose of education: to transmit knowledge, often a canonical set of ideas, facts, and works. Such knowledge, advocates of this view say, represents the intellectual heritage that has been amassed by generations of academics and must be passed on for culture to endure.

Many people propose an alternative approach: teaching skills like critical thinking and quantitative analysis that are thought to be transferable among disciplines. According to this view, parcels of content can be extracted from survey courses, expanded, and shaped around a central question to spark student interest. A sociology student may never come across, say, Max Weber's theory of legitimacy, but she will become well versed in a skill like analyzing data. Skeptics of such an approach worry, though, that it leaves too many students ignorant of key facts and ideas. And terms like critical thinking have been invoked so widely, the skeptics say, that they have become meaningless.

Teaching for Rigor

But students will actually get more out of teaching that emphasizes content and skills if they have been trained to be curious and intellectually thorough, say Mr. Baehr and others. They are also likely to be more enthusiastic learners.

Following on the example above, students who are taught in a way that emphasizes the development of intellectual virtues might learn Weber's theory, its strengths and weaknesses, the scholarly responses to it, and be expected to respond with their own take.

"One of the really nice things about teaching for intellectual virtues is that, because they aim for deep, explanatory understanding and not just memorization of isolated facts, you're automatically teaching for rigor," Mr. Baehr says.

Some professors who stress the importance of teaching content or

skills see their approaches as being just as academically demanding. Catharine H. Beyer, a research scientist for assessment of student learning at the University of Washington, has come to see that teaching critical thinking and teaching content are inseparable because each depends on the other.

Learning a discipline is never just about knowledge-stuffing, she says. It's also about teaching the conventions and practices of writing, thinking, and other skills that are specific to a discipline.

Ms. Beyer, whose research on 304 Washington undergraduates' learning over four years appeared in the book *Inside the Undergraduate Experience*, says the real meaning of traits like intellectual courage and rigor may vary according to disciplinary contexts. Even though both a psychology major and an English major may prize good writing and intellectually honest research, she says, what counts as a persuasive mode of argument and valid evidence is bound to vary greatly between the two.

She is skeptical that faculty can reasonably be expected to teach a set of habits of mind or intellectual virtues that transcend disciplines. But she agrees that *how* faculty members teach—including how well they model such traits as curiosity, open-mindedness, and intellectual passion—greatly influences students.

Ms. Beyer's research for a forthcoming book, *Inside the Undergraduate Teaching Experience*, suggests that faculty members and students realize the importance of these traits. She says that when a faculty member teaches students certain theories, then hands out readings that argue strenuously against them and asks students to sort through the debate, the approach models "an enduring curiosity" that students may retain beyond the course.

When faculty members allow their sense of wonder to show, it can have a similar effect. "They remember the professor's passion about rocks way longer than the facts about rocks," she says.

Inevitably, say several scholars, faculty members teach good or bad intellectual virtues—even if they are not aware of it.

"If we don't model intellectual virtue, then we're in danger of modeling something else," Dona Warren, a professor of philosophy and assistant dean for curriculum and student affairs at the

University of Wisconsin at Stevens Point, wrote in an e-mail.

When a professor responds curtly to a student's question, says Ms. Warren, he models intellectual arrogance. If he says, "You know, I'm not sure," he embodies intellectual humility.

"There's very little of any importance that's value-neutral about teaching," Ms. Warren says, "so yes, I hope that professors are teaching intellectual virtues, even if they never use the term."

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