When I first started graduate school, I was an incurable snoop. Deeply curious about the lifestyles of my professors, I looked through the bookcases in their offices, studied the clutter on their desks, and asked personal questions about everything from how they balanced work with family to how many hours they slept at night. Yet I wasn’t trying to pry into their private lives; I was simply fascinated by how they did their academic work because I’d never seen professional scholarship in action before. I knew the results, but not the process.

Later, when I had the opportunity to work in the open, shared space of the British Library’s reading room, I found myself in an intellectual voyeur’s heaven. Here before me were world-renowned researchers, taking notes, turning pages, frowning, and sighing. It was a revelation to me to see in person the struggles I had associated with novices replicated on the faces of experts. In the reading room, I at last saw the photo negative of academic labor—a total inversion of production and product.

Too often, undergraduates do not see this master image. In Clueless in Academe (2003), Gerald Graff argues that many students (and people in general) feel unnecessarily confused and embarrassed in the world of higher education because it obscures its own processes. Graff claims that “academia reinforces cluelessness by making its ideas, problems, and ways of thinking look more opaque, narrowly specialized, and beyond normal capacities than they are or need to be” (1). My own bewilderment by what Graff calls the “mysterious guild secrets” (191) of graduate education convinced me we can do a better job exposing the hidden brainwork that leads to academic success.

**Habits of mind and college preparedness**

One way to make procedural knowledge (i.e., the how) visible to more students is by explicitly teaching habits of mind. These habits include broad, dispositional capacities—such as curiosity, engagement, persistence, flexibility, and metacognition—that support learning within and across disciplinary and institutional contexts. Since the phrase first became popular among educators in the 1990s, scholars have offered many congruous definitions for “habits of mind”: They are “a fundamental set of behaviors for thoughtful teaching and learning” (Costa and Kallick 2009, ix), “foundational dispositions well-prepared students have” that are “essential to successful participation in [academic] culture” (ICAS 2002, 13), or “ways of approaching learning that are both intellectual and practical” (CWPA, NCTE, and NWP 2011, 1). Reading scholar Sheridan Blau (2003, 19) calls them “traits of performative literacy.” A 2007 Bill and Melinda Gates Foundation report calls them “academic behaviors.” Mathematics educator E. Paul Goldenberg (1996, 14) gives a particularly useful explanation: “By ‘habits of mind,’ we mean ways of thinking that one acquires so well, makes so natural, and incorporates so fully into one’s repertoire, that they become mental habits—not only can one draw upon them easily, one is likely to do so.” Habits of mind, in other words, are an internalized set of practices essential to critical thinking.
Yet despite this agreement among scholars about the meaning and value of habits of mind, these dispositional practices largely remain in the shadows of college instruction. Even in K-12 education, where habits of mind enjoyed a limited spotlight, this approach has lost support in the wake of the recent standards and accountability movement. Because these broad intellectual capacities are not easily assessable, they have been slighted in favor of more conspicuous and discrete learning outcomes (Ravitch 2010)—a neglect that often obscures the very processes by which students acquire proficiency in academic skills and knowledge. Even the National Assessment of Educational Progress (NAEP), the federal government’s flagship model of standardized testing, recognizes that some of the most important things students learn in school transcend content-based performance measures. In an attempt to suss out the differences between college readiness (a holistic, dispositional condition) and college preparedness (a concrete aggregate of skills), the final report of the NAEP Technical Panel on 12th Grade Preparedness Research (2008, 3) offers the following distinction: “Academic preparedness is separate and different from college readiness because readiness encompasses behavioral aspects of individual performance related to success in addition to academic skills, and these additional attributes are not measured by NAEP. Examples of readiness characteristics include persistence, time management, interpersonal skills, and knowledge of the context of college.” If we accept that working hard and knowing how to think are central to learning disciplinary content (Arum and Roksa 2011), then we need to feature the habits of mind that develop those practices far more prominently in our curricula.

**A multi-campus, cross-disciplinary collaboration**

That’s exactly what our small group of college math and writing faculty from California has been trying to do. Funded by a grant from the Lumina Foundation, thirty developmental education instructors from Cabrillo College, California State University–Monterey Bay (CSUMB), and Hartnell College have partnered to create lesson exemplars that target intellectual capacities such as motivation and self-efficacy. Believing that it is these kinds of affective qualities that most directly contribute to students’ successful transition to higher education, we asked ourselves a key question: How do we operationalize habits of mind as an instructional approach? The grant gave us multiple opportunities to find answers.

We started by taking a closer look at our institutional contexts and the students we serve. Cabrillo and Hartnell are both two-year colleges; CSUMB is a four-year comprehensive university, one of twenty-three in the massive California State University system. All three campuses are Hispanic-serving institutions whose students hail from throughout the “salad bowl” of the Salinas Valley and from up and down California’s foggy central coast. This is Steinbeck country. Placement in college-level writing and math classes hovers around 50 percent for first-time students at the state school, and is lower at the two community colleges. Most students work, receive financial aid, and—should they persist until graduation—will be among the first in their families to earn an associate’s or bachelor’s degree. First-year retention rates for each campus vary from below 50 percent to a high of 76 percent. Grant participants primarily work with first-year and “developmental” students; many are part-time faculty and lecturers.

After examining our local context, we talked about how first-generation students at our three campuses experience the “hidden curriculum” of higher education. Many of our students have math or writing anxiety. Most are surprised by the amount of studying required outside of class. Few have regular routines or dedicated spaces for academic work. These are not “deficits” our students bring to college; they are data for making instructional decisions.

We likewise explored the kinds of learning experiences and behaviors that fostered our own development as thinkers. During one lunch discussion on a collaboration day, for example, colleagues from different disciplines and campuses talked about what motivated
them. Overwhelmingly, faculty mentioned “interest” and “variety,” not abstract goals. On another day, a writing instructor (herself a first-generation college graduate who now holds an MFA and a PhD) shared what a revelation it had been to her to learn that academic essays have a specific structure. By sharing our stories, we learned that many of us had indeed felt profoundly clueless during our journeys toward becoming scholars. We wanted better for our students.

**Classroom applications**

While we knew that we couldn’t simply put “holistic intellectual growth” as an outcome on our syllabi (how will you measure it!), we also knew that this was what we were after in focusing on habits of mind. We further believed that this kind of growth depended on explicit coaching and practice. In *College and Career Ready* (2010), educational policy scholar David T. Conley identifies direct instruction in “academic behaviors,” such as “resilience in the face of academic frustrations” (114–15), as a key principle of successful college preparation programs. Accordingly, we sought ways to give these behaviors a dedicated space in our curricula, believing that while “an entire campus engages and educates its students in the learning required for our times . . . it is in the classroom where powerful experiences of learning are the enticement, the reward, for persistence” (Malnarich 2008, 4). In our own classrooms, we’re now experimenting with how and when to address habits of mind as an instructional target.

Ken Rand, a math instructor at Hartnell College, uses clicker technology to learn about his students’ backgrounds and interests while engaging them in the classroom community. On the first day of class, he asks questions such as “What is your favorite food?” or “How do you get to campus?” and then allows students to respond anonymously through hand-held devices. Some of Ken’s most intriguing questions invite students to make a difficult choice: “Would you rather speak another language fluently or be able to do difficult math in your head?” or “Would you rather win the lottery or find true love?” Asking these kinds of provocative yet “safe” survey questions generates both curiosity and engagement in Ken’s math class, while also demonstrating a key principle of higher education: many questions don’t have clear or easy answers.

Lydia Graecyn, a writing instructor at Cabrillo College, created an innovative approach to fostering persistence among her students during the ticklish work of peer review. Knowing that many students are hesitant to offer constructive feedback on their peers’ writing—both because it’s hard work and because they don’t want to appear rude—Lydia offers an illuminating comparison. She tells a story of having lunch with a friend and then spending a full day of errands meeting
many people before realizing that she had a large piece of spinach stuck to her front tooth. She next asks her students to raise their hands if they would want someone to tell them if they had something stuck in their teeth. “Usually every student will raise his or her hand,” Lydia explains. “Then we discuss gentle ways to inform someone about something in another person’s teeth, hair, nose, or on their clothes, or in their essay.” Lydia’s explanation of the value of seeking and giving honest, critical feedback encourages her students to take themselves seriously as academic writers and to see writing as an authentic act of communication. By explicitly addressing how language use impacts a writer’s image, Lydia increases her students’ self-awareness and motivates them to persist in presenting themselves as effectively as possible—a practice that can ultimately lead to improved self-confidence.

In Hartnell writing instructor Hetty Yelland’s pre-transfer-level class, Friday is “Scrabble Day.” Every week, students in Hetty’s class explore the technical properties of the English language by playing Scrabble with one another. At first, students enjoy the activity as a pleasant diversion. But over time, they find the game increasingly difficult as each player becomes a more sophisticated strategist. Because the weekly routine gives students repeat experience with language play and word formation, it challenges students to go beyond surface understandings of vocabulary toward more complex theories of language. Indeed, Hetty shares that students typically become bored with the game after the first few weeks. It’s the extra effort students have to make to overcome the boredom—and their passive word knowledge—that eventually leads to more active and internalized language practices, thus highlighting the critical connection between persistence and habit formation.

Hetty’s colleague, Heidi Ramirez,* uses play of a different sort to promote her students’ confidence and engagement. She created a text-based improvisation exercise that requires small groups of students to dramatize kinds of lies (“white” lies, delusions, omissions, etc.) in response to an article they read. For this activity, students create and perform a skit showing the lie in action. During one of our collaboration days, Heidi modeled how she uses this strategy in her classroom to improve her students’ poise and reading comprehension, calling those times when students finally let go of their insecurities and come into their own as writers or performers “arrival moments.”

Additional lessons we’ve been piloting include strategies for attacking academic boredom, ways to incorporate games and stories in math classes, and metacognitive writing activities (e.g., “Math Anxiety Essays” or process descriptions). During and after instruction, we look for evidence that we’ve met our mark: Are the students asking questions? Talking to each other? Smiling? Nodding? Writing? Problem solving? We also ask students to be self-aware as learners. After piloting a habit-focused lesson, we distribute the following set of questions to our classes: (1) Were you interested in the lesson? Why or why not? What did you do to self-manage? (2) Was anything confusing to you? If so, how did you deal with your confusion? (3) How can you use what you learned for other assignments and classes?

**Reflections**

We’re finding that this approach upends the complaint of not having enough time to teach things like creativity or time management by foregrounding, and indeed privileging,
procedural knowledge as essential to the development of conceptual or disciplinary knowledge. In her description of an integrated, experiential approach to learning that fosters effective citizenship, Janet Eyler (2009, 24) explains how “personal, social, and intellectual goals are intertwined.” Our work makes a case for keeping these goals intertwined. We believe in dedicating instructional time to teaching habits of mind in addition to the measurable outcomes that are the outward signs of a lot of fuzzy and fitful brainwork. As California’s Intersegmental Committee of Academic Senates puts it in its document Academic Literacy, “True academic competence depends upon a set of perceptions and behaviors acquired while preparing for more advanced academic work” (ICAS 2002, 12).

One caution: we’ve learned that, just like rigor and joy, academic progress and personal development are symbiotic. Habits of mind uncoupled from academic content devolve into meaningless study skills and platitudes; academic content uncoupled from habits of mind devolves into perfunctory test preparation. Both are soulless busywork.

**Conclusion**

As a result of our grant collaboration, I’m learning to recognize other incognito apprentices like myself—those students who job-shadow me on the sly, in much the same way that I watched scholars in the British Library. They’re looking for the photo negative, too. I think of students like Renée, Tony, and Anna who drop by during my office hours just to see what I’m “up to.” Tony, a first-generation student who wants to teach English at his former high school in an agricultural community, once told me that he wants his personal library to look like mine someday. Or I think of the brilliant young mother contemplating graduate school who wondered how to make room for diaper changes and a dissertation in the same lifestyle. The question they ask most often is, “How do you do it?”—meaning how do you become and be a person who does this kind of work? My answer is never a learning outcome on my syllabi. I don’t say, “Well, you need to interpret and integrate information from multiple sources.” I say instead, “Follow your curiosity, keep showing up for the things that matter, be open to surprises.”

After all, it’s not the finished image that most intrigues these students; it’s the process of development.

To respond to this article, e-mail liberaled@aacu.org, with the author’s name on the subject line.

**NOTE**

*After this article was written, Heidi Ramirez, a key leader of our multi-campus collaboration, passed away from a rare and aggressive form of cancer. Heidi was a superb colleague and friend, a gifted teacher, and an outstanding advocate for students. Her gracious leadership and legacy have had a profound influence on our efforts.*

**REFERENCES**


