

# THRIVING *in* Academe

## REFLECTIONS ON HELPING STUDENTS LEARN

Thriving in Academe is a joint project of NEA and the Professional and Organizational Development Network in Higher Education ([www.podnetwork.org](http://www.podnetwork.org)). For more information, contact the editor, Douglas Robertson ([drobert@fiu.edu](mailto:drobert@fiu.edu)) at Florida International University or Mary Ellen Flannery ([mflannery@nea.org](mailto:mflannery@nea.org)) at NEA.

## ■ Minding the Body in Remote Learning Environments

Online education has changed the game by ditching in-class seat time as a measure for learning. Neuroscience is revealing that learning is an embodied process—of the body, that is—offering us another chance to radically reconceive online practices.

**BY SUSAN HRACH**

*Faculty Center for the  
Enhancement of  
Teaching and Learning,  
Columbus State  
University*

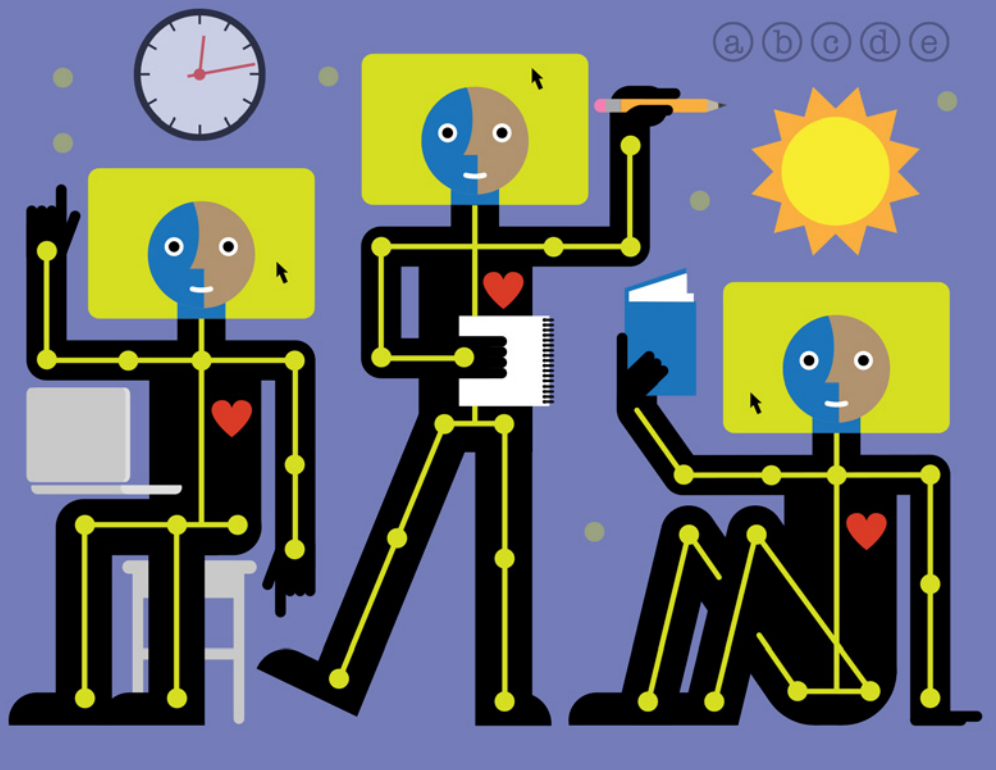
In academe, our collective misunderstanding of thinking as a head-only process has impaired our understanding of learning and practices of education. Our unfortunate but common practice of treating learners like “brains on sticks” (a metaphor reputedly made first by eco-philosopher Joanna Macy) resonates because we’ve created and reinforced a divide between brain and body in Western culture for hundreds of years.

Today, the field of embodied cognition tells us the body plays a vital role in cognition. Indeed, dealing with the physical—even in virtual, online learning spaces—can offer new and unusual ways for educators and learners to connect with each other and take risks together as human beings.

Embodied cognition draws from brain science and phenomenology to explore how bodies shape perception. A general explanation begins

with the position that our brains are not autonomously in charge, issuing orders to various body parts. Rather, the brain acts as a site for hosting and curating conversations; organs in this dynamic system, like the heart and lungs, communicate through a variety of channels, including electrical, hormonal, and mechanical. Signals are sent through nerve endings in our skin, through internal organs and tissues, and through hormonal balances and the state of our immune system, each of which interact with prior knowledge and experience to produce perception (see Barrett 2020).

Embodied cognition explains why cognitive function depends so much on bodily well-being and, in turn, bodily well-being on a supportive environment. Emotional stress and lack of sleep, movement, fresh air, and nutritious food are often at the root of poor or inconsistent intellec-



on the sofa or bed? Do they listen to or watch recorded content while commuting to work? Environment affects cognitive performance, and students should be offered opportunities to be intentional about choosing, designing, or improving a learning space. Ideally, a learning space would help reduce the mental requirements of a task—a concept called cognitive offloading—through easy access to physical tools like pens/pencils and paper, a whiteboard, or reference sources. There should be a degree of ambient noise or silence intentionally selected. At the beginning of your course, ask students to post photos of the spaces where they'll be learning, and to share ideas for “third places” (neither home nor school, but libraries, coffee shops, parks) they might be able to use for variety.

## Strategy #2: Send learners outside.

An ideal cognitive space enables stretching and moving around, which aids in creative thinking and idea-generation. Alertness is enhanced by fresh air and natural light. Since learners benefit from changing up the spaces where they work, strategy #2 encourages them to literally think outside of the box. Look for ways to assign audio content that they can absorb while walking, doing outdoor chores, using public transportation, cycling, etc. Create a personalized field trip assignment that allows them to visit a relevant local site on their own or gather perspectives from other people and

tual functioning. How often has a familiar task, like answering email, taken longer and seemed more difficult when we are tired or distracted by worry? Behavioral scientists Sendhil Mullainathan and Eldar Shafir (2013) refer to this phenomenon as a *taxed bandwidth* that affects not only our memory function but our brains' executive control: we can give the impression of being “not all there,” or having poor judgment or self-control, because our bodies are struggling to provide the necessary energy to think. To learn well, we must preserve or recover cognitive bandwidth.

I recommend four strategies, useful in both asynchronous and synchronous virtual modes, to provide students with the best conditions for cognitive performance:

## Strategy #1: Recognize the impact of physical spaces on learning.

What do you know about the physical learning environments of your students? Are they working at a table in a dedicated area of their homes, or from a smartphone

## TALES FROM REAL LIFE: MODELING EMBODIED, MINDFUL PRACTICES

For years, I felt nervous about asking students to join me in deep breathing or stretching exercises. I have no professional credentials in health care or physical wellness and wasn't even sure if I could model the movements, breathe, and count out loud at the same time. But in those exhausting final days of a term when I did summon up the guts to lead a neck-

roll session, however inexpertly, I felt better, calmer, and more grounded in less than three minutes, and our class discussion always seemed to elicit broader, more personal contributions.

Now that I understand how physical states shape cognitive and social functioning, I know that taking a few moments to breathe

together was helping all of us to recover cognitive bandwidth. In addition, synchronizing our bodily movements was building a sense of connection that spilled over into sharing conversation. I'm now more comfortable modeling physical activities because I know scientific research supports the efficacy of embodied, mindful practices in reducing stress and

improving alertness. I can also be transparent with students about the benefits of trying these practices.

I'm immensely grateful for discovering audio recordings by experienced practitioners that allow me to hit the play button on a wonderful range of guided exercises. In one of the final live, online sessions of a hybrid class I taught dur-

ing the pandemic, we listened to a 5-minute “Self-Compassion Break” (see *Greater Good in Action*) because it specifically addresses difficult, stressful situations. Not only were my students visibly moved by this small, humane moment, but they took away a free tool to use anytime in coping with academic stress.

## BEST PRACTICES: HOW TO MIND THE BODY

How can we optimize students' cognitive performance in remote learning environments? Here are some best practices for implementing the four strategies of helping students learn well virtually.

### 1. Recognize the impact of physical spaces on learning.

- Allocate time in the first week of class for students to optimize their physical spaces for learning.
- What could make a study or learning space more pleasant? conducive to concentrating? affording movement?
- What alternatives could provide variety in their

learning places? Could they include outdoor spaces?

### 2. Send students outside whenever possible.

- Assign audio podcasts/ recordings and encourage students to listen while walking, biking, or visiting a nearby green space.
- Fresh air and movement enhance cognitive function. Assign an outdoor "move-and-think" activity as a first step in generating ideas for research topics or personal projects.
- Create a personal field trip experience by sending students to visit nearby relevant sites.

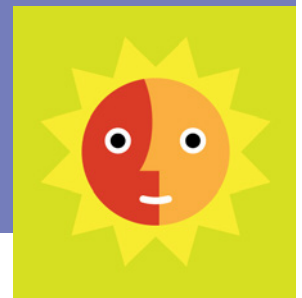
Ask them to take pictures, record audio or video, and report to the rest of the class about their discoveries.

### 3. Build movement into classroom time.

- Lead a live virtual class through a few minutes of collective deep breathing, stretching, or gesture games you can find freely available online (see Additional Resources).
- Remind students to stand up and move as part of instructions for class assignments.

### 4. Use multi-sensory activities to build social relationships among students.

- Look for ways for students to get to know each other's voices and faces; ask for audio or video recordings in place of some written discussion posts.
- Offer coexperiences, in which students witness something important together. Have them share what they notice and build a collective understanding.



report back with photos, videos, or audio recordings. Online education has the potential to largely free us from "seat time" by using technology more intentionally (see Bruff 2019). We should make use of this freedom by sending students out into the world for learning experiences, and by gathering synchronously for experiences that are important to share.

### Strategy #3: Build movement into classroom time to create community and a sense of belonging.

Whether your course is built on a sequence of synchronous class meetings, or you meet only occasionally online, consider ways to acknowledge everyone's embodied presence in the virtual space. Shared physical activity might involve gentle breathing routines to bring ourselves fully present into the moment, or "chair yoga" stretches to offer a cognitive reset after long periods of focused listening and discussing. Check out free YouTube videos and narrated audio practices (such as those available through the *Greater Good in Action* website) that can enable you to click play and participate

along with students as a boost for yourself. A quick search for "creative icebreakers for virtual meetings" will yield other ideas for physical activities; theater improv and dance educators have developed warm-up rituals that use rhythm and gestures effectively online.

### Strategy #4: Use multi-sensory activities to build social relationships among students.

A sense of belonging offers students the chance to recover needed bandwidth for learning. Social annotation tools (e.g., VoiceThread, Perusall, or Hypothes.is) enable students to post written responses to course-related images and audio/video files; students also can record their own voices and images when responding via discussion board. A live virtual class might involve exploring discrete physical objects together, or a bring-your-favorite-snack night. The pleasures of learning can be amplified through social connection, even when that involves simply being present for an experience together.

Coexperience, such as watching a film or exploring unfamiliar objects at the same time, involves "simply experiencing something in parallel with a close other—without communication or any explicit interaction" (Boothby et al 2017, 694). When coexperiencers feel safe together, they spend less energy monitoring their social situation and pay closer attention to the environment. Witnessing stimuli in the company of trusted others can make objects seem more appealing and even more real. The phenomenon of coexperience suggests that learning with others whom we trust improves the depth of our cognitive processing. In collaborative work, students who have built familiar, comfortable, and trustworthy relationships can encourage each other to persist in challenging moments.

Unlike the dynamic experience of learning through movement and sensations, learning in the industrial age has focused on stasis: we sit, listen, and perform a kind of absorption that we imagine takes place entirely within the confines of our skulls. That stasis has informed our sense of educational norms, and the infrastructure of remote learning reflects it. While technology makes

education accessible for many, it may also exacerbate sedentary habits that are detrimental to human health and well-being. Students aren't brains on sticks, and if we ignore the vital role of the body in cognitive perception, we miss out on enormous potential for deeper learning.

## ADDITIONAL RESOURCES

Barrett, Lisa Feldman. 2020. *Seven and a Half Lessons About the Brain*. Boston: Houghton Mifflin Harcourt.

Beilock, Sian. 2015. *How the Body Knows Its Mind: The Surprising Power of the Physical Environment to Influence How You Think and Feel*. New York: Atria Books.

Boothby, Erica J., Leigh K. Smith, Margaret S. Clark, and John A. Bargh. 2017. "The World Looks Better Together: How Close Others Enhance Our Visual Experiences." *Personal Relationships* 24 (3): 694–714. <https://doi.org/10.1111/per.12201>.

Bruff, Derek. 2019. *Intentional Tech: Principles to Guide the Use of Educational Technology in College Teaching*. Morgantown: West Virginia University Press.

Claxton, Guy. 2015. *Intelligence in the Flesh: Why Your Mind Needs Your Body Much More than It Thinks*. New Haven: Yale University Press.

Cregan-Reid, Vybar. 2018. "Why We Are Living in the Age of the Chair." *BBC Future*, November 9, 2018. <http://www.bbc.com/future/story/20181108-the-anthropocene-should-be-known-as-the-age-of-the-chair>.

Greater Good Science Center, University of California–Berkeley. 2020. "Mindful Breathing." *Greater Good in Action*. [https://ggia.berkeley.edu/practice/mindful\\_breathing](https://ggia.berkeley.edu/practice/mindful_breathing).

Hansen, Anders. 2016. *The Real Happy Pill: Power Up Your Brain by Moving Your Body*. New York: Skyhorse.

Levy, Nat. 2017. "The Secret Science of Your Office Space: How Architects Are Using Neuroscience to Make Workers Healthier and More Productive." *GeekWire* (March 21).

Mullainathan, Sendhil, and Eldar Shafir. 2013. *Scarcity: The New Science of Having Less and How It Defines Our Lives*. New York: Picador.

Paul, Annie Murphy. *The Extended Mind: The Power of Thinking Outside the Brain*. 2021. Mariner Books.

Shukla, Sarita. 2021. "Two by Three by Bradford," Warm Up/Equity Unbound Activities, OneHE. <https://onehe.org/eu-activity/two-by-three-by-bradford/>

Verschelden, Cia. 2017. *Bandwidth Recovery: Helping Students Reclaim Cognitive Resources Lost to Poverty, Racism, and Social Marginalization*. Sterling, VA: Stylus.

Williams, Florence. 2017. *The Nature Fix: Why Nature Makes Us Happier, Healthier, and More Creative*. New York: W. W. Norton.

## Meet Susan Hrach



**Susan Hrach** is director of the Faculty Center for the Enhancement of Teaching and Learning and professor of English at Columbus State University, where she teaches composition, literature, and translation studies in all modalities. Designing and delivering study abroad programs in England and Italy shaped Susan's research interests in experiential learning and the impact of nature on cognitive functioning; she is the author of *Minding Bodies: how physical space, sensation, and movement affect learning* (WVU Press, 2021). The University System of Georgia recognized Susan's commitment to raising cross-cultural awareness among her students with the Regents' Scholarship of Teaching and Learning Award in 2013. Contact Susan at [hrach\\_susan@columbusstate.edu](mailto:hrach_susan@columbusstate.edu) or at [@susanhrach](https://twitter.com/susanhrach) on Twitter.

## ISSUES TO CONSIDER: REMOTE LEARNING STRUCTURES

**H**ow can we help remote students to maintain or recover the energy needed to learn?

Because the body is always implicated in cognitive functioning and the processes of perception, the health and physical well-being of student and faculty bodies must be recognized as an academic issue. Brains respond positively to better sleep and nutrition, time spent in nature, physical activity, and social interaction. The phrase "sitting is the new smoking" feels like an important 21st century reckoning. The widely discussed and unanticipated epidemic of mental illness on campuses coincides with increased sedentary habits and time spent indoors, behind electronic screens. Our embodied brains are crying for help in "the age of the chair," as British author and academic Vybar Cregan-Reid termed it.

Encouraging students to prioritize their physical well-being is an act of caring for their cognitive development. Think creatively about ways you can get them out away from their screens for assignments. Set deadlines at noon or 5 pm (instead of midnight) to help them get to sleep earlier. Be transparent about why you want them to move, to get outside, and to get enough rest: they'll perform better on academic tasks.

**H**ow can we support the best possible structures for remote learning?

The technological innovations that have changed the higher ed landscape in recent decades have revealed what isn't easily replicated through online interactions: physical human contact, shared social experiences, the need to use our bodies to make physical objects or to perform as a meaningful expression of new understanding. Ideally, we should design intentional structures for remote learning that incorporate live virtual learning moments, options to gather in person for special purposes, and the flexibility of valuable asynchronous activities.

We know that brains are deeply embodied, that bodies are deeply interconnected, and that an ecosystemic model—not an assembly line—best represents the dynamic interplay that produces human learning. We're at a turning point in the business of higher learning, affected by global and local forces that threaten the survival of many institutions, and I think this threat presents our best opportunity to transform our approaches to teaching.

