

Body/Mind Learning

Leverage the body for better cognitive functioning



Brains are vulnerable



BRAINS USE A LOT OF ENERGY

Sleep, nutrition, and physical health affect available cognitive bandwidth.

BRAINS PERCEIVE AND ATTEND SELECTIVELY

Brains save energy by relying on prediction from past experience.

Bodies can help

VARIETY SURPRISES THE PREDICTIVE BRAIN

Cognitive bandwidth can be supported through mixing up learning activities.



MOVE TOGETHER

Interactional synchrony develops a sense of connection & belonging. Breathe, stretch, rearrange furniture, dance.

Tools can help



SENSORY OBJECTS ENHANCE NOTICING

Touching physical objects and creating learning artifacts provide affordances to the brain.

USE YOUR SPACE WITH INTENTION

Map and navigate information around the classroom. Get outside, go places.



ADAPTED FROM

MINDING BODIES: HOW PHYSICAL SPACE, SENSATION, AND MOVEMENT AFFECT LEARNING (WVU PRESS, 2021)

Susan Hrach, PhD



Further reading on embodied learning

Embodied cognition science for a general audience



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

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

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

The costs of following sedentary norms

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



Vybarr Cregan-Reid, *Primate Change: How the World We Made is Remaking Us*. Cassell, 2018.



How nature affects the brain and overall well-being

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

Using space to support a sense of belonging and well-being

Altaf Engineer, Aletheia Ida, Esther M. Sternberg, "Healing Spaces: Designing Physical Environments to Optimize Health, Wellbeing, and Performance" *Int. J. Environ. Res. Public Health* 17, no. 4 (2020): 1155.

Steelcase 360 Research, "Learn better: it's time for a fundamentally better learning experience." 2021.
www.steelcase.com/research/articles/topics/education/learn-better

Paul Baepler, JD Walker, et al., *A guide to teaching in active learning classrooms: History, research, and practice*. Stylus, 2016.

How movement promotes interpersonal connection



Stefanie Hoehl, Merle Fairhurst, Annett Schirmer, "Interactional synchrony: signals, mechanisms and benefits," *Social Cognitive and Affective Neuroscience*, Volume 16, Issue 1-2, January-February 2021.

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



Guided practices for the classroom

University of California-Berkeley, Greater Good in Action: Science-Based Practices for a Meaningful Life. ggia.berkeley.edu