TAKING IT OUTSIDE: USING GREEN SPACE TO IMPROVE STUDENT LEARNING

AN INTERACTIVE PRESENTATION

Susan E. Hrach, Columbus State University

EXTENDED ABSTRACT

Neuroscientific studies are revealing flaws in our industrial-era view of the brain as "in charge," issuing orders to various systems and parts of the body (Beilock 2015). Rather, the brain acts as a site for hosting conversations among all of our biological systems, which interact with prior knowledge and experience to produce perception. By encouraging movement, social interaction, and increased self-awareness of our physical states, we can harness the power of students' bodies in the service of learning.

The principle of *biophilia* explains our innate attraction to natural and to other living beings (including plant life), spawning a number of recent studies (Mitchell 2015) about the ways that spending time in green spaces directly impacts human health and well-being. Cognitive performance, including measures of attentiveness, concentration, memory restoration, perception, and responsiveness, has been shown to increase during exposure to natural elements.

In this innovative session, participants will meet in the conference venue's advertised outdoor patio space (or, weather-prohibiting, around the hotel's indoor pool) to experience learning in a natural environment.

- Participants will be introduced to principles from the science of biophilic design, which explores the role of the body and of the environment in shaping the brain's processes.
- Session participants will be asked to compare the research evidence (Browning et al 2014) to their present experience in the session's setting.

Participants will consider the efficacy of going outside to co-opt students' biochemical reward systems for acquiring new information and encountering new situations with openness and curiosity. We will briefly address the potential benefits of spending time outside for students who are coping with taxed bandwidth (Verschelden 2017) to maintain or recover energy needed to learn.

- Participants will be asked to raise problems and form possible solutions in adapting indoor classroom strategies to outdoor spaces.

From my own practice and current research, I will share a series of examples, including student responses to single-class assignments and to more immersive experiences.

- The session will culminate in a think-pair-share exercise that asks participants to brainstorm ideas for using campus green spaces for a range of learning activities, in a variety of disciplines. We will frame our exercise through the Nature Pyramid, a model developed by the Biophilic Cities Project (Beatley 2012), as a guide for envisioning low-nature-immersion to high-nature-immersion academic activities.
- The session goal will be to leave with an action plan for one experimental outdoor learning activity: where, when, how, and with whom.

SELECT REFERENCES

Beatley, T. (2012). "Exploring the nature pyramid," *The Nature of Cities* blog (August 8).

Beilock, S. (2015). *How the body knows its mind: the surprising power of the physical environment to influence how you think and feel*. Atria Books.

Browning, W. D., Ryan, C. O., Clancy, J. O. (2014). “14 patterns of biophilic design,” Terrapin Bright Green, LLC.

Mitchell, R. (2015). “More reasons to think greenspace may be equigenic.” *CRESH: Center for research on environment, society and health* blog (April 21).

Verschelden, C. (2017). *Bandwidth recovery: helping students reclaim cognitive resources lost to poverty, racism, and social marginalization*. Stylus.

For further information, contact the lead presenter:
Susan E. Hrach
Director, Faculty Center for the Enhancement of Teaching and Learning
Columbus State University
4225 University Avenye
Columbus, GA 31907
Phone: (706)565-1204
E-Mail: hrach_susan@columbusstate.edu