

Improving student success: From the classroom to the lab to the classroom to...we need to talk!

Donald J. Foss
University of Houston

Recently, Stephen Chew provided a list of nine cognitive challenges related to teaching and student learning, followed by this (2017): “Effective teaching involves solving a nine-way interaction of factors. And these are only the cognitive factors and does not even address social, emotional, or other kinds of factors.”

The scamp in me tempts me to say—under my breath, of course: *Is that all?*

That temptation arises because of a strong suspicion that he may be correct, and at least a dim realization of the difficulty in finding a sweet spot among that swirling set of variables. Yikes!

I think we’re going to have to figure out how to do work that generalizes and gets decent effect sizes while we build up the practical and theoretical acumen to predict when we will get both commitment to learn and transfer of that learning—supremely important yet elusive goals.

This talk will discuss an approach to putting together what we think we’ve learned from the lab with the complexities of the college classroom as lived. It employs semester-long studies combined with careful counterbalancing of some variables we can ethically manipulate. I’ll talk about some successes and, from one point of view at least, some less-than-successful work on learning and transfer, and address students’ metacognition and the effects of feedback on it. Finally, I’ll suggest that we consider other pedagogically in vivo, but still relatively “small ball” approaches that can (1) examine social, intellectual, and teaching technique variables that may help us find those sweet spots, and (2) permit relatively easy adoption by our colleagues.