The Lighter Side

Not Learning How to Ride a Bike: The Lecture Approach

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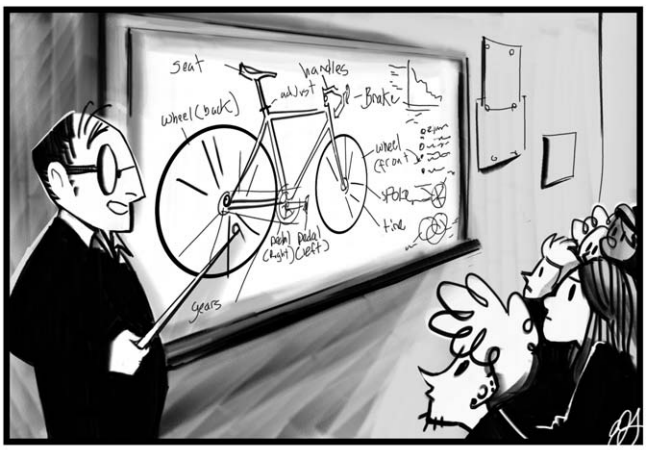

That about covers all you need for riding a bike. Tomorrow we cover flying a plane..

The literature on teaching and learning overwhelmingly suggests that active learning is more effective than passive learning, such as occurs through lecturing and note taking. Nonetheless, in the life sciences the incorporation of this methodology has lagged behind other disciplines such as physics and math. I can think of a multitude of examples where it does not make sense to try to learn exclusively through a passive approach, by sitting and listening to an expert, and writing down every word he or she says. Just consider learning a new language, becoming a swimmer, flying an airplane, or—my favorite, because it is one many of us have experienced—riding a bicycle. How many people learned to ride a bike entirely through a lecture approach? Even contemplating such a thought seems ridiculous; no matter how good the instructor, you could never become proficient unless you got onto the bicycle and pedaled for yourself. That is not to say there is no purpose in lecturing. In the case of learning to ride a bike, a brief verbal introduction for instance to the hand brakes (whether in the classroom, or while sitting on the seat) might save the novice rider from some unnecessary falls; however, for most people that is about as much knowledge as the instructor can successfully transfer—the rest must be constructed by the learner.

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