The Opportunity of Hybrid Learning

Michael Reynolds, PhD Editor, Journal of Online Engineering Education

In economics, the Laffer curve is a theoretical function that models how much revenue a government can raise through taxation. The curve suggests that if there are no taxes or 100% tax rates that a government will fail to raise income in either case. Obviously a 0% tax rate will raise no revenue but a 100% rate will also fail to raise revenue since people will have no incentive to work. The optimal amount of revenue is somewhere in between. Regardless of your own economic beliefs, I would suggest that there is also such a curve with respect to the amount of online content that is implemented in a course. The two extremes are clear, no online resources or a course done completely online with no face-to-face interaction. I believe neither extreme is optimal (though certainly not zero learning!) and that there must be some optimal value in between. If this is indeed true, what are the implications of such a finding? The key principle is that online learning is for everyone, not just for a few faculty who have chosen to implement it. The second principle is that there will always be some added value to having hands-on experiences and face-to-face interactions. Those of us who wish to optimize the amount of learning our students will experience will want to figure out where is this maxima. The optimal value certainly depends on a lot of factors: technical savvy of the instructor and students, the nature of the curriculum, student access to the internet, and the availability of quality online content. How do educators begin to find this point? First, be open to change. Many of us have taught the same way with little change over the years. We are creatures of habit and we have likely found a way to teach our courses that works well enough. But we can always improve. Call the textbook publisher and ask if there are any online tools available. If the course you are developing is fairly common among engineering students, there is likely something out there. If you cannot find it with your textbook publisher, consider others. Often the online tools can be decoupled from the textbook, allowing you to keep the textbook and adopt the online content independently. Second, search around the internet. You know your students are doing it. See what's out there. It is good to be aware of what students can see about your course and the related content. Finally, be open to creating your own content. It has never been easier to record lectures, upload notes and create online assignments. You could not only be helping your students, but helping others outside of your classroom and the university.