I imagine that nearly all academic institutions are under some pressure right now (particularly state schools), and as a result, some of you may have felt the pressure to produce more with less. There may be internal pressure from your administrators to achieve higher enrollments or teach more students, sections, or courses. There is likely external pressure from those that hire your students for a more knowledgeable and skilled graduates. Then there is your own internal drive to do good work and your realization that relationships and interaction are very important for development of both you and your students. If you have not had that realization, I would suggest you read a past article by Bob Horton of Iowa State University on that topic (http://bit.ly/2sUs1wn). Think back for a moment to your own education and what mattered most (other than the people) … perhaps it was labs, discussions, field trips, or something like that. Chances are good that it was not a large lecture or an online course. If we are receiving pressure then to do more with less, we have to find a way to maintain these most vital components of education while finding efficiencies somewhere.

I am still new to the art/science of teaching and have spent no more time on the receiving end than most of you reading this. What I do have is the opportunity to focus my efforts on teaching. I am compelled, then, to share my observations and anecdotes about what I have been trying in the classroom/lab in an effort to cope with the previously mentioned tensions. If you are just starting out and you missed Aaron Daigh’s article (Steps for Effective Teaching in the Classroom; http://bit.ly/2sU3U0a) back in November 2016, I highly recommend it for getting your courses on track. What I’d like to do here is encourage you to try something new and share something that I think helps make teaching more efficient under the current demands of doing more.

I have the privilege of having multiple sections of some of my courses, but this comes with my time as well. In one of these instances, I have put in some effort to make this time more effective. While I am not a fan of online courses, and the “flipped” classroom to be a truly new concept (reading before class discussion is “flipped”—getting students engaged in the issue), but I do think there are some pieces where online content can work. I want to have what I will call a “prepared” student in an active learning environment, so I will share my success in one of my attempts to accomplish this without losing my sanity.

Try Something New
Recently I was needed to teach an introductory lab section, but I did not want to give up my upper-level labs in soil physics, and the additional hours in the classroom would mean sacrifices elsewhere. In order to accomplish this without losing my sanity, I came up with a plan to put the lab recitation for soil physics in an active learning environment, and I will share my success in one of my attempts to do this.

Below: Jacob Prater in the field with his introductory soils class looking at horizons. Right: Video still from a particle density analysis prelab video.