How to Be the World's Best Law Professor

Warren Binford

It is always dangerous to start with a confession (unless you are a Catholic stepping into a confessional, of course[1]) but here is mine. The title of this essay was originally, "How to Be the World's Worst Law Professor." After all, we are supposed to write about the things we are expert on, aren't we? Some of you are expert on contracts law, others on immigration law, and those are the topics that you write about. What am I expert on? Good question. Sometimes I hope that I know a little bit about children's rights, but more often I fear that my greater expertise centers on what *not* to do as a law professor. There have been many days that have ended with my head on my desk wondering why my students did not understand something I had taught, did not perform how I expected, or were seen scrolling through their Facebook newsfeeds during class. I could share with you all of the mistakes I have made as a professor and provide scientific research showing why my approaches were destined to fail. Who doesn't enjoy reading about someone who performs worse than we do? Isn't this the attraction of the Darwin Awards? I imagine you would find great comfort knowing that, although you might lecture occasionally, at least you never made a group of Scandinavian students in Cape Town sit through a three-hour lecture on international children's rights in a foreign language (English) while talking really quickly as Professor Binford once did (yes, I really did).

But when I sent an early draft of my essay to a more savvy colleague across the country, he immediately pointed out that for the rest of my life, anyone who Googled my name would see "World's Worst Law Professor" pop up

[1].   For the record, I was raised a Baptist, which means I can't dance, don't drink, and have a healthy wariness of confessions.

in the search results. Now I might not be a social media genius, but I am smart enough to know what a marketing disaster that would have been! It is bad enough that I fear I may be the world's worst law professor, but it is a whole other matter for Google's algorithms to prove it. Algorithms are never wrong after all, right? So I accepted his challenge to reframe the essay from a more positive perspective, but presenting the same research. Now, instead of thinking I am not very bright, you think I am cheeky, which personally I prefer. Wouldn't you?

And so here you have a highly imperfect law professor, who sometimes fears she may be the world's *worst* law professor, telling you how to be the world's *best* law professor.[2] How is that supposed to work? This is how: We learn far more from failure than we learn from success.[3] This is one of the first truths of teaching. So through my failures as a teacher, I have been driven to research and find and read the latest pedagogical research on what works and what doesn't. It does not mean I know it all, and it certainly does not mean I do it all. But I am trying to learn from my own shortcomings and failures, and here are a few of the most important findings I have learned so far about teaching and learning in my own quest *not* to be the world's worst law professor.

One of the most important things I have learned in my endeavor is that there has never been a better time to be an educator. Advances in neurological research in the past thirty years have given us a better understanding of how the brain works and how humans learn than at any other time in human history.[4] Some of what we have learned from that research is not surprising and confirms what we have known and done for millennia. But other lessons directly counter mainstream teaching practices, and challenge educators—in law and other fields—to step back and re-evaluate how we teach our students. This essay will highlight some of the teaching and study methods most commonly used in legal education today, and share what the latest educational research shows regarding their effectiveness or, in many cases, ineffectiveness. It will also introduce legal educators to a few new teaching and learning methods that currently are underutilized in law schools. Finally, it will challenge legal educators to consciously select effective teaching methods and to abandon

2. Those interested in becoming the "World's Best Law Professor" should read MICHAEL HUNTER SCHWARTZ ET AL., WHAT THE BEST LAW TEACHERS DO (2013). The book was published by Harvard University Press and profiles 26 law professors around the country who facilitate exceptional learning by setting high standards and modeling professional conduct by being prepared, accessible, and supporting their students' success. Although I agree with many of the lessons shared in that book, this essay is distinguished in that the lessons here are based largely on quantitative educational research, whereas WHAT THE BEST LAW TEACHERS DO is based largely on qualitative research. Both have value, and I found nothing significantly inconsistent between the qualitative research presented in WHAT THE BEST LAW TEACHERS DO and the quantitative research highlighted here.

3. Anne Sobel, *How Failure in the Classroom Is More Instructive Than Success*, CHRON. HIGHER EDUC. (May 5, 2014), http://chronicle.com/article/How-Failure-in-the-Classroom/146377/.

4. *See* SOCIAL NEUROSCIENCE: TOWARD UNDERSTANDING THE UNDERPINNINGS OF THE SOCIAL MIND (Alexander Todorov et al. eds., 2011).

ineffective ones and to transform law schools into educational environments that yield high results from our students. Where to start?

Start with Failure, and Then Continue to Fail Until…

One of the most counterintuitive lessons discovered recently through educational research is the power of failure to prime the mind for deep learning.[5] In legal education, we spend an entire semester preparing our students to be successful on a high-stakes final exam at the end, but now we know that we actually should be giving our students exams at the *beginning* of the semester and hoping that they fail so that they will be mentally prepared to learn. Think about the irony of that. Legal education literally seems to have the learning process backward. Rather than end with testing, we need to start with testing. A recent study by Elizabeth Ligon Bjork, a psychologist at U.C.L.A., found that students' performance on a final exam was improved an average of ten percent by doing nothing more than taking a test at the beginning of the course.[6] That is one entire grade point, a whole letter grade. In other words, if we want our students to learn, we need to start by showing them what they do not know. Even better, it will help us to discover our students' gaps in knowledge so that we can adapt course content accordingly.

I know what you are thinking: "Is she really saying that in order to become 'The World's Best Law Professor' I need to test my students more and create more opportunities for my students to fail?" Yes, I am, with the understanding that testing has consistently been proved to be a highly effective *learning* method when designed well, in addition to its value as an *assessment* method. In the end, the approach is likely to increase our students' learning and long-term professional success. Moreover, it is critical that we recognize that "testing" can take many forms. A student's knowledge can be tested in a classroom with pen and paper, on a smartphone or tablet, during an oral examination, or via a law practice performance in moot court or simulated or clinical courses. One should not limit one's view of testing to the anxiety-inducing high-stakes exams that have scarred many and been roundly criticized.[7]

The value of testing has been recognized by other professional graduate school programs. Many are already testing their students before they even

---

5.   Nicholas C. Soderstrom & Robert A. Bjork, *Testing Facilitates the Regulation of Subsequent Study Time,* 73 J. Memory & Language 99, 112 (2014); Harry P. Bahrick & Lynda K. Hall, *The Importance of Retrieval Failures to Long-Term Retention: A Metacognitive Explanation of the Spacing Effect*, 52 J. Memory & Language 575 (2005).

6.   Benedict Carey, *Why Flunking Exams Is Actually a Good Thing*, N.Y. Times (Sept. 4, 2014), http://www.nytimes.com/2014/09/07/magazine/why-flunking-exams-is-actually-a-good-thing.html.

7.   Sharon L. Nichols & David C. Berliner, Collateral Damage: How High-Stakes Testing Corrupts America's Schools (2007); Gregory J. Cizek & Samantha S. Burg, Addressing Test Anxiety in a High-Stakes Environment: Strategies for Classrooms and Schools (2006).

begin their first week of classes.[8] Some of these tests are for remediation purposes.[9] Others are for determining what level courses to assign students.[10] Others allow students to waive out of some of their graduate school courses entirely.[11] Can you imagine a law school where students can waive out of their coursework? It is easy to do. After all, who wants or needs to take a course in which they can already demonstrate mastery or, at least, competency?

In a higher education system that is placing more and more value on learning outcomes, pretesting becomes mandatory so that we can establish baselines; but more important, we now have confirmation of a century's worth of research that testing is not just valuable for assessment purposes, but is one of the most highly effective learning approaches.[12] Thus, every legal educator in the country should consider conducting testing not just at the end of the course, but at the beginning as well. Moreover, law schools should consider following the lead of other professional graduate programs and test their students at the beginning of the entire degree program, before classes even begin.

And if we want to be the best, we can't stop there. We need to keep testing, but in kinder, gentler ways across time.[13] A recent series of clinical trials by Professor Price Kerfoot at Harvard Medical School shows that introducing content to students repeatedly in a test format over time increases both acquisition and retention of content.[14] Professor Kerfoot refers to the technique as "spaced education."[15] His theory and results were confirmed by one of the most comprehensive meta-analysis studies of cognitive and educational research ever conducted ("the Dunlosky Study").[16] The Dunlosky Study reviewed over 700 scientific articles on ten popular learning techniques to determine which ones measurably advanced learning and which ones did not.[17] Their analysis determined that "self-testing" or "practice testing"—that

8. W. Warren H. Binford, *Envisioning a Twenty-First Century Legal Education*, 43 Wa. U. J.L. & Pol'y 157, 178 (2013).

9. *Id.* at 175.

10. *Id.* at 179.

11. *Id.* at 179.

12. John Dunlosky et al., *Improving Students' Learning with Effective Learning Techniques: Promising Directions from Cognitive and Educational Psychology*, 14 Psychol. Sci. Pub. Int. 4, 26 (2013).

13. *See* Nichols & Berliner, *supra* note 7; Cizek & Burg, *supra* note 7.

14. Craig Lambert, *Learning by Degrees*, Harv. Mag., Nov.-Dec. 2009, at 10, 11; *The Science Behind Qstream,* Qstream, http://qstream.com/company/brain-science/(last visited June 16, 2013); B. Price Kerfoot & Erica Brotschi, *Online Spaced Education to Teach Urology to Medical Students: A Multi-Institutional Randomized Trial*, 197 Amer. J. Surgery 89, 92 (2009).

15. Kerfoot & Brotschi*, supra* note 14.

16. Dunlosky et al., *supra* note 12.

17. Specifically with regard to practice testing, Dunlosky et al. reviewed over 120 articles drawn primarily from the past ten years, but recognized that research supporting the efficacy of testing as a learning method has existed for over one hundred years. *Id.* at 29-30.

is low-risk testing that can be administered outside of the classroom with low or no impact on the student's grade—is a "high-utility" learning method.[18] In other words, we need to test our students earlier, more, and in low-risk settings if we want to increase their retention, comprehension, and test performance on that high-stakes final exam that we rely on for final assessment, as well as the bar exam after they graduate.

"But doesn't that mean more work for us?" you might wonder. Yes, but not much. Another wonderful aspect to the fact that we are law teachers in this day and age is that technology exists that allows us to create a test once, and then have that test administered and graded, and automatically provide customized feedback to our individual students. This, in turn, frees our time and energy to meet with our students to focus on the deep learning and complex questions that may be slowing down their learning process. Moreover, many e-books and other digital resources include quizzes and practice questions at the end of book sections and chapters. All a professor has to do is assign these "tests," monitor the students' progress, and adapt course content and design accordingly.

Finally, adaptive learning software programs and apps—which combine spaced education, low-risk testing, and individualized content delivery—have been developed by Dr. Kerfoot, BarBri, the creators of Core Grammar for Lawyers, and many others.[19] More adaptive learning programs and apps should be developed in collaboration with legal educators, which would further support both efficiency and individualization while utilizing high impact learning methods supported by comprehensive pedagogical research. Given how easy it is to do and the proven effectiveness of the learning method, there really is no excuse not to engage our students more frequently with such exercises. Even if we do not assign these tests and exercises ourselves, we should at least teach our students about the effectiveness of this learning method, so that they can engage it themselves as part of their study strategies. We are, after all, professional educators and should be able to tell our students which learning methods work well and which ones do not.

Distribute Learning across Time

The Dunlosky Study also confirmed that the second aspect of Professor Kerfoot's spaced education theory, which the Dunlosky team refers to as "distributed practice," has high utility for learning and increases retention of content and comprehension.[20] Distributed practice requires students to revisit topics across time rather than to cram them into a single study session or a series of study sessions, which is very different than the model of most law school courses. Customarily, we introduce a topic once or twice over the course

---

18.   Dunlosky et al. define "high-utility" learning methods as those that "are robust and generalize widely." *Id*. at 7.

19.   Binford, *supra* note 8, at 170.

20.   Dunlosky et al., *supra* note 12, at 35-40.

of a semester and the student is subject to the possibility of being tested on the content, usually only once at the end of the course. The student normally will read the assigned material before class, witness and possibly participate in the class discussion, study for the exam, and then take the exam all within a matter of a few short months. For bar courses, law school students are then expected to recall the content when they sit for the bar exam two to three years later.[21] They may also need to recall the content of both bar courses as well as other law school courses years later in law practice.

In a field where we know that we are educating our students to recall information years from now for bar exam passage, law practice success, or both, the endurance of the effects of distributed practice are especially valuable. Some of the most relevant research for legal educators regarding distributed practice examines the ideal length of time between practice sessions. One study suggests that in designing a learning experience, the educator should start by asking how long the learner needs to retain the content and then design practice sessions at intervals approximately ten to twenty percent of the length of time the learner needs to retain the material.[22] Apply this to the law school context where a student is introduced to the concept of offer and acceptance in a first-year contracts course. The student will need to retain that information for approximately 34 months at a minimum (from when the content is introduced until she sits for the first bar exam after law school graduation). According to the distributed practice research, legal educators should design a curriculum in which the student re-engages with the concept of offer and acceptance every three to six months or so to increase the likelihood that she will be able to recall the information when needed. This suggests that legal educators should be designing curriculum not only across semesters, but across all three years of law school study.

It also suggests that schools that use the quarter system should reconsider that practice. In one study of distributed practice, learners were tested on their conceptual understanding of content after the course had ended.[23] The learners were divided into two groups. One group took the course over an eight-week period while the other group took the course over a six-month period. The group that took the course over the six-month period scored

---

21. Although many students do enroll in commercial bar examination preparation courses, such courses are expensive and many do not. The average tuition for law for a private law school in 2012 was $40,500. The average tuition at a public school that year was $23,600. Ethan Bronner, *Law Schools' Applications Fall as Costs Rise and Jobs Are Cut*, N.Y. Times, Jan. 31, 2013, at A1. One could argue that after spending over $100,000 at private law schools, law students should not have to pay thousands of additional dollars to an outside entity to prepare them to pass the bar exam, except in cases where they are testing in a different state than the location of their law school. *See also* Brian Z. Tamanaha, Failing Law Schools 108 (2012) (describing law school tuition costs).

22. Nicholas J. Cepeda et al., *Spacing Effects in Learning: A Temporal Ridgeline of Optimal Retention*, 19 Psychol. Sci. 1095, 1101 (2008).

23. Luc Budé et al., *The Effect of Distributed Practice on Students' Conceptual Understanding of Statistics*, 62 Higher Educ. 69, 72 (2011).

more than ten points higher on average than the group that took the course during the shorter period, despite the fact that there were no other identified differences.[24]

Of the ten learning methods examined in the meta-analysis conducted by Dunlosky et al., low-risk testing and distributed practice were the only two learning methods that met the criteria for high-utility learning techniques. Their distinction compels law schools and legal educators to consider ways to adapt course design and the law school curriculum to better utilize these highly effective methods to maximize student learning. However, there is a third learning method examined by Dunlosky et al. that holds promise and closely complements the only two methods (testing and spaced education/ distributed practice) found to be high utility.

Interleave Studies

Unlike testing and spaced education/distributed practice, which can no longer be challenged vis-à-vis learning efficacy given the significant amount of scientific literature supporting these learning methods, there is a more limited amount of research considering whether it is better to organize blocks of learning around a specific topic or to interleave various topics. The emerging research that has examined this learning approach fairly consistently finds that interleaving topics may lead to notably higher performance than blocking topics when one measures performance over time.[25] For example, in one study of interleaving versus blocking, accuracy was measured during learning and on a test afterward. Although students using a blocking method demonstrated higher levels of accuracy during the learning session, it was the students using an interleaving approach who demonstrated significantly higher accuracy on the test conducted afterward at a rate of approximately three to one compared to the blocked students.[26]

What might interleaving look like in the law school setting? Imagine a torts course or module that also included elements of civil procedure. When the student is tested, the legal educator ideally would test the student first on the topics most immediately covered (first, strict liability and jurisdiction, for example), but then may include a question about the concept of offer and acceptance the student learned about previously (ideally, the most recent topics are covered first and then more distant ones[27]). According to the research, the interleaving of these three topics in the students' study and testing appears to help students with, *inter alia*, organization, discrimination, and memory.[28]

---

24.   *Id. at* 74.

25.   Dunlosky et al., *supra* note 12, at 40-44.

26.   Doug Rohrer & Kelli Taylor, *The Shuffling of Mathematics Problems Improves Learning*, 35 Instructional Sci. 481, 492 (2007).

27.   Kristin H. Mayfield & Philip N. Chase, *The Effects of Cumulative Practice on Mathematics Problem Solving*, 35 J. Applied Behav. Analysis 105, 116 (2002).

28.   Dunlosky et al., *supra* note 12, at 40-44.

When one starts to envision a curriculum that includes repetitive coverage of topics accompanied with low-stakes testing across the duration of law school, one quickly recognizes that a certain amount of interleaving of topics would be inherently necessary.[29] The fact that most of the research conducted on interleaving supports the effectiveness of the practice, especially with regard to comprehension and accuracy after the learning period, provides further support for redesigning the law school curriculum consistent with these scientific studies to maximize our students' comprehension and retention across time.

In other words, if we want to be "The World's Best Law Professors," we need to start envisioning a law school curriculum that is far more integrated, with repetitive coverage of topics interspersed across semesters and even years. We need to set up low-risk practice testing opportunities for our students that allow them to recall content over time, and where we can measure their knowledge and understanding of topics through demonstrated learning outcomes indicating mastery. But how should we deliver that content?

Of Course Limit Lecturing, but What about the Socratic Method?

Not by lecture. Over 700 studies have confirmed what many of us know based on our own experience as students: Lectures are among the least effective methods for achieving almost every educational goal ever identified.[30] In fact, for some education goals, lectures have been identified as *the* least effective learning method. Others suggest that they may be worse than no teaching at all since attending a lecture leads to less studying afterward.[31] So why do we keep using them? Money.

Unfortunately, some institutions appear to be driven by the cost of a learning method rather than its efficacy. Thus, large lecture classes throughout higher education are sometimes favored by administrators over labs, clinics, simulated practice experiences, and seminars. The good news is that although many law schools tend to continue to favor large classes, especially in the first year, we use lecturing less than many other programs of study in higher education.[32] When we do use large classes and the "sage on the stage" approach, traditional legal pedagogy favors the Socratic method, which was identified in the recent Carnegie Report of legal education as advancing certain outcomes

29.   *See, e.g.*, Dunlosky et al., *supra* note 12, at 41. Indeed, Dunlosky et al. recognize that the measured benefits of interleaving may be partially a result of distributed practice, and then cite research that holds spacing constant, finding that interleaving appears to have benefits of its own. *Id.*

30.   Graham Gibbs, *Lectures Don't Work, But We Keep Using Them*, Times Higher Educ. (Nov. 21, 2013), http://www.timeshighereducation.co.uk/news/lectures-dont-work-but-we-keep-using-them/2009141.article.

31.   *Id.*

32.   William. M. Sullivan et al., Educating Lawyers: Preparation for the Profession of Law 50-52 (2007).

during the first year of law school.[33] These advances could be attributed to the fact that the Socratic method utilizes elaborative interrogation, which has been shown to increase learning and retention, at least in the short term.[34] Elaborative interrogation was examined in the meta-analysis conducted as the Dunlosky Study, and was identified as a "moderate-utility" learning method. Reasons that it was not rated higher include the fact that not enough research has shown whether the short-term advantages evident in the approach endure across longer periods as well as whether the effects would be evident among a wide variety of learner populations.[35]

Another reason the Socratic method may work follows from its integration of the case study method,[36] which implicates two elements shown to contribute to heightened learning. The first is stories. Storytelling has played a central role in transferring knowledge across generations for millennia. Indeed, study after study has shown the human mind's ability to retain content when organized in and around stories.[37] Every case that is read in the Socratic method is organized around a case that includes a story. These stories serve both as touchstones for recalling legal principles as well as an organizational structure for elements and analysis. Mention Mrs. Palsgraf to a lawyer long after law school, and the individual is likely to immediately recall the concept of proximate cause accompanied by images of a railroad platform, exploding fireworks, and falling scales.[38]

In addition to the stories inherent in a study method organized around legal cases, the learning effectiveness of the Socratic method as used today is likely helped by another less likely characteristic: confusion. Although many assume that being straightforward is the way we should deliver content to learners, recent research suggests that a moderate amount of confusion leads to "significantly higher learning gains."[39] As many legal educators know, a moderate amount of confusion is largely what fuels the Socratic method today. Whereas Langdell eschewed the study of conflicting cases or those that departed from doctrine because he believed that they were decided wrongly,

33.   *Id.* at 186.

34.   Dunlosky et al., *supra* note 12, at 8-11.

35.   *Id.*

36.   The case method was invented by Christopher Columbus Langdell in 1870. A brief description and history of the method can be found in David A. Garvin, *Making the Case*, Harv. Mag., Sept.-Oct. 2003, at 56.

37.   Kendall Haven, Story Proof: The Science Behind the Startling Power of Story (2007); Roger C. Schank & Robert P. Abelson, *Knowledge and Memory: The Real Story, in* 8 Advances in Social Cognition 1, 3 (Robert S. Wyer, Jr. ed., 1995); Kenneth D. Chestek, *Competing Stories: A Case Study of the Role of Narrative Reasoning in Judicial Decisions* (Sep. 2011) (unpublished paper), http://works.bepress.com/kenneth_chestek/3.

38.   Palsgraf v. Long Island R.R. Co., 162 N.E. 99 (N.Y. 1928).

39.   Sidney D'Mello et al., *Confusion Can Be Beneficial for Learning,* 29 Learning & Instruction 153, 165 (2014).

today law professors focus on those cases.[40]   Before being elected to the United States Senate, Elizabeth Warren explained, "You know the difference between daylight and dark? Well, we spend all of our time [in law schools] on dawn and dusk."[41] According to Martha Minow, Dean and Jeremiah Smith, Jr. Professor of Law at Harvard Law School, when we use the case method, "We have conflicting principles and are committed to opposing values. Students have to develop some degree of comfort with ambiguity."[42] The finding that a certain amount of confusion yields higher learning outcomes is further supported by the educational research suggesting that problem-based learning, which engages students more, also leads to better learning.[43] Whether one portrays the Socratic method as elaborative interrogation, story-based, confusing, or focused on problem solving, there is educational research to support use of this method as leading to the gains identified in the Carnegie Report on legal education.

It is well-known that the Socratic method has had many critics, starting with the Harvard Law School alumni and law school students who left in droves between 1870 and 1873, the first three years of Dean Langdell's administration, when he introduced the case method.[44] The critics continue to voice their concerns today.[45] Criticisms include the use of the method in

40.   Garvin, *supra* note 36.

41.   *Id.* at 59.

42.   *Id.* at 58.

43.   *See, e.g.*, Scott Freeman et al., *Active Learning Increases Student Performance in Science, Engineering, and Mathematics*, 111 Proc. Nat'l Acad. Sci. 8410, 8412 (2014) (data collected indicate active learning increases examination performance by just under one-half a standard deviation, and that lecturing increases failure rates by 55%); *see also* Candice Stefanou et al., *Self-Regulation and Autonomy in Problem- and Project-Based Learning Environments*, 14 Active Learning Higher Educ. 109, 112 (2013) (describing advantages of project-based learning as shown in various studies); John E. Stinson & Richard G. Milter, *Problem-Based Learning in Business Education: Curriculum Design and Implementation Issues, in* Bringing Problem-Based Learning to Higher Education: Theory and Practice 33, 40 (Luann Wilkerson & Wim H. Gijselaers eds., 1996) (noting a "paradigm shift" from "being the 'Sage on the Stage' to the 'Guide on the Side'").

44.   Harvard Law School's enrollment dropped to 117 from 165 during that time, which prompted Boston University to open its own law school across the river. Up until that point, the preferred approach was the Dwight Method, which relied on a combination of lecture, recitation, and drill. Much of the students' "real learning" occurred after law school in actual law practice. Garvin, *supra* note 36, at 58.

45.   Benjamin V. Madison, III, *The Elephant in Law School Classrooms: Overuse of the Socratic Method as an Obstacle to Teaching Modern Law Students*, 85 U. Det. Mercy L. Rev. 293, 295 (2008); Suzanne Dallimore, *The Socratic Method–More Harm than Good*, 3 J. Contemp. L. 177, 182 (1977); Stephen M. Bainbridge, *Reflections on Twenty Years of Law Teaching*, 56 UCLA L. Rev. Discourse 13, 16 (2008).

abusive and insensitive ways[46] and the fact that the approach is "too narrow"[47] and trains students "more for conflict than the gentler arts of reconciliation and accommodation," in the words of former Harvard President Derek Bok.[48] In light of the research documenting the shortcomings and disadvantages of the Socratic method, it is crucial that law schools employ this method selectively and with sensitivity, while avoiding the lecture at all costs—literally.

Let Your Students Teach

On second thought, there is at least one person in the lecture hall who benefits greatly from lecturing: the lecturer. So if you want to be "The World's Best Law Professor," the first thing you should do is sit down and let your students go to the lectern. After all, we know that teaching generally produces the highest rate of long-term retention.[49] Unfortunately, if one utilizes the lecture method to teach, it also yields the lowest level of long-term retention for those in the classroom—as low as five percent—so better than sending that student to the lectern, provide them with peer tutoring[50] and other more interactive opportunities to teach and to learn from one another by

46. *See, e.g.*, Marina Angel, *Women in Legal Education: What It's Like to Be Part of a Perpetual First Wave or the Case of the Disappearing Women,* 61 Temp. L. Rev. 799, 810 (1988); Phyllis W. Beck & David Burns, *Anxiety and Depression in Law Students: Cognitive Intervention*, 30 J. Legal Educ. 270, 286 (1979); Orin S. Kerr, *The Decline of the Socratic Method at Harvard,* 78 Neb. L. Rev. 113, 118 (1999).

47. Garvin, *supra* note 36, at 59-60 (quoting Michael Meltsner, former visiting professor and director of the First Year Lawyering Program).

48. Derek C. Bok, *"A Flawed System": Report to the Harvard Board of Overseers*, Harv. Mag., May-June 1983, at 38, 41.

49. *The Learning Pyramid*, Bus. Simulations, http://www.simulations.co.uk/pyramid.htm (last visited Sep. 27, 2014) (the Learning Pyramid was created by the National Training Laboratories in Bethel, Maine; model explores how different teaching methods affect retention rates). The Learning Pyramid (alternatively referred to as the "Cone of Experience," "Cone of Learning," and several similar names) has been criticized repeatedly since the underlying research cannot be found. *See*, *e.g.*, James P. Lalley & Robert H. Miller, *The Learning Pyramid: Does It Point Teachers in the Right Direction?*, 128 Educ. 64 (2007); Kåre Letrud, *A Rebuttal of NTL Institute's Learning Pyramid*, 133 Educ. 117 (2012). Consequently, in every place where I cite the Learning Pyramid, which is familiar to many readers, I also cite at least one recent pedagogical study supporting the data presented. In the case of learning by teaching, s*ee* John A. Bargh & Yaacov Schul, *On the Cognitive Benefits of Teaching*, 72 J. Educ. Psychol. 593, 593 (1980) (concluding that there are tangible cognitive benefits of teaching); Logan Fiorella & Richard E. Mayer, *The Relative Benefits of Learning by Teaching and Teaching Expectancy,* 38 Contemp. Educ. Psychol. 281 (2013) (suggesting that actual teaching is superior to retention than mere preparation to teach).

50. Martha D. Rekrut, *Teaching to Learn: Strategy Utilization through Peer Tutoring*, 77 High Sch. J. 304, 310 (1994) (finding that students who tutored their peers demonstrated higher retention after one-month delay than students who did not tutor).

participating in both roles.[51] After all, there is considerable support for the effectiveness of collaborative learning.[52]

Opportunities to collaborate and teach during law school are not limited to peer tutoring and collaborative learning, of course. Law schools and their faculty can also identify opportunities to support students in teaching legal concepts and practice in the larger community. The most obvious of these would be through clinical courses where students teach their clients about legal rules and processes that are relevant to the client's legal needs. In addition, many law school students can also teach moot court sessions for high school or undergraduate students, or organize workshops or training sessions for the local community on topics ranging from estate planning to credit disputes to landlord/tenant law. Whether it is done for academic credit or simply as pure community service, it is critical that law schools recognize the high-retention yield of teaching and create and support opportunities for their students to find and create teaching opportunities so that they, in turn, can learn using the most effective learning method identified.

Practice Makes Perfect

These practice experiences are not beneficial just because they provide teaching opportunities for law school students. Practice experiences are highly beneficial in their own right. Indeed, according to pedagogical research, practice by doing has the second-highest rate of long-term retention of any learning method (seventy-five percent).[53] In other words, those simulated-

---

51. *Id. See also* DAVID A. SOUSA, HOW THE BRAIN LEARNS 95 (2d ed. 2001) (suggesting a 5% retention rate from lectures); JAMES J. DUDERSTADT ET AL., HIGHER EDUCATION IN THE DIGITAL AGE: TECHNOLOGY ISSUES AND STRATEGIES FOR AMERICAN COLLEGES AND UNIVERSITIES 64 (2002) (suggesting a 5% retention rate from lecturing); KAREN MATISON HESS & CHRISTINE HESS ORTHMANN, MANAGEMENT AND SUPERVISION IN LAW ENFORCEMENT 221 (6th ed. 2011) (suggesting people retain 20% of what they hear); DONALD W. MYERS, 2004 U.S. MASTER HUMAN RESOURCE GUIDE 836 (2004) (suggesting a 10% retention rate from lecturing). *But see* Robert L. Morgan, et al., *A Comparison of Short Term and Long Term Retention: Lecture Combined with Discussion Versus Cooperative Learning*, 27 J. INSTRUCTIONAL PSYCHOL. 53 (2000) (a comparison of teaching techniques showed superior short-term retention in a classroom with lecture and discussion over a classroom of cooperative learning, but no difference in long-term retention). For information on the value of interactive learning, *see* ANGELA M. O'DONNELL & ALISON KING, COGNITIVE PERSPECTIVES ON PEER LEARNING (1999).

52. CINDY E. HMELO-SILVER, THE INTERNATIONAL HANDBOOK OF COLLABORATIVE LEARNING (2013); Jan L. Plass et al., *The Impact of Individual, Competitive, and Collaborative Mathematics Game Play on Learning, Performance, and Motivation*, 105 J. EDUC. PSYCHOL. 1050 (2013); David W. Johnson et al., *Cooperative Learning Methods: A Meta-Analysis*, CENT. CHRISTIAN SCH. (May 2000), http://www.ccsstl.com/sites/default/files/Cooperative%20Learning%20Research%20.pdf.

53. *See* DUDERSTADT ET AL., *supra* note 51, at 65 (students retain 75% of information by doing); George Hillocks, Jr., *What Works in Teaching Composition: A Meta-Analysis of Experimental Treatment Studies*, 93 AM. J. EDUC. 133 (1984) (a meta-analysis finding that "environmental" learning— "guided discovery with structured activities"—resulted in superior learning over lecture and teacher-led discussions); Mary Bay et al., *Science Instruction for the Mildly Handicapped: Direct Instruction versus Discovery Teaching*, 29 J. RES. SCI. TEACHING 555 (1992) (finding that discovery learning led to higher retention than direct instruction among both learning-disabled and

practice courses, externships, and clinics may cost more than placing 80 students in the room with a single lecturer, but they are far more likely to produce better learning outcomes for our students. Can you imagine a law school committed to designing and offering courses according to learning outcomes rather than cost input?

As law schools consider how to balance the budget and keep the lights on during the worst downturn in law school enrollment in modern history,[54] it is natural that some administrators may be tempted to conduct a casual analysis and conclude that high-enrollment courses are the answer and try to cut costs by reducing smaller experiential courses.[55] However, a familiarity with effective pedagogies and the retention yields of various methods reveals that not all courses are equal when it comes to learning outcomes. The value of courses and teaching methods should not be measured predominantly by teaching or staffing inputs, but rather by learning efficiencies, efficacies, and outcomes.[56] After all, if we hold ourselves out as educators, we owe it to our students to have a reasonable familiarity with effective educational methods and to utilize and prioritize those, rather than keep our heads in the sand and continue to offer course and curriculum designs that have been scientifically proved by study after study to be ineffective. Accepting tuition in exchange for enrollment in courses designed around learning methods that have been scientifically proved to be ineffective is unconscionable.

What about Reading and Rereading?

Of course, learning does not just occur within the classroom, and so legal educators must also consider what and how students study outside of our presence. In legal education, we assign tens of thousands of pages of reading at a cost of thousands of dollars per student over the course of the student's law school career. These purchases contributed to a $4.4 billion law publishing industry in the United States in 2007,[57] but did it help our students? Probably

---

non-learning-disabled students).

54. Karen Sloan, *Law School Enrollment Slump Continues,* Nat'l L. J. (July 21, 2014), http://www.nationallawjournal.com/id=1202663837843/Law-School-Enrollment-Slump-Continues; Peter Schworm, *Waning Ranks at Law Schools*, Boston Globe (July 6, 2014), http://www.bostonglobe.com/metro/2014/07/05/law-school-enrollment-fails-rebound-after-recession-local-colleges-make-cuts/fR7dYqwBsrOeXPbS9ibqtN/story.html.

55. For example, in fall 2014, Lewis & Clark Law School announced that it was closing the Lewis & Clark Legal Clinic effective January 2015 due to budget constraints. Email from Jennifer Johnson, Dean, and Erskine Wood, Sr., Professor of Law, to Phylis Myles, Assistant Dean for Placement, Willamette University College of Law (Sept. 3, 2014, 12:05 PST) (on file with author).

56. *See also* Robert D. Kuehn, *Pricing Clinical Legal Education*, 92 Denver U. L. Rev. 1 (2014) (finding that offering clinical opportunities to law school students has no net impact on tuition and concluding that offering clinical opportunities to students is determined by the law school's will to offer such opportunities to students).

57. Michael Ginsborg, *Ending Our Conflicts of Interest to Protect Consumers of Legal Publications*, 15 AALL Spectrum 28 (2011).

not as much as we think. According to studies of learning methods, our students will remember only approximately ten to twenty percent of what they read.[58] You know what yields even worse results? Rereading more than once.

The Dunlosky Study included rereading as one of the ten common learning techniques it examined and concluded that rereading, especially after the second round, was a low-utility learning method.[59] This finding is especially concerning in light of the fact that rereading is such a widespread learning method.[60] In fact, a survey at one university where the average SAT score was above 1400 revealed that rereading of texts and notes was a study method used by 84 percent of students, and 55 percent of the students identified rereading as the study technique they used most often.[61] Our best and brightest can't all be wrong, can they? They are not.

Certainly, rereading does show some improved learning, but these gains are largely attributable to the second reading.[62] Moreover, the benefits are usually demonstrated in recall; it is not clear that rereading has a significant positive impact on comprehension.[63] Moreover, when the gains from rereading are compared with the gains from other learning methods, such as low-risk testing and distributed practice, it becomes clear that rereading is far less effective.[64] So why do students overuse it? Perhaps because it is easy for them to do, especially when professors do not offer them opportunities to use more effective learning methods and do not educate students about the best study methods.

Will highlighting help our students? Not one bit. Not only has highlighting proved ineffectual in multiple studies across diverse populations,[65] in the case of higher-level tasks such as those implicated in graduate education, highlighting might actually hurt performance by reducing the student's ability to make connections and draw inferences, individuating the information too much.[66] Nonetheless, it is among students' "security blankets" and should

---

58.   *See* MYERS, *supra* note 51, at 836 (individuals retain 20% of what they read); HESS & ORTHMANN, *supra* note 51, at 221 (individuals retain 10% of what they read).

59.   Dunlosky et al., *supra* note 12, at 29. It is worth noting that the only study that has been conducted on the effects of rereading using graduate students is Jeanne T. Amlund et al., *Repetitive Reading and Recall of Expository Text*, 21 READING RES. Q. 49 (1986).

60.   Dunlosky et al., *supra* note 12, at 26-27.

61.   Jeffrey D. Karpicke, et al., *Metacognitive Strategies in Student Learning: Do Students Practice Retrieval When They Study on Their Own?*, 17 MEMORY 471, 474 (2009).

62.   Dunlosky et al., *supra* note 12, at 28.

63.   *Id.* at 28-29.

64.   *Id.* at 29.

65.   *Id.* at 18-21.

66.   Sarah E. Peterson, *The Cognitive Functions of Underlining as a Study Technique*, 31 READING RES. & INSTRUCTION 49, 54-55 (1992).

not be taken away, according to Dunlosky.[67] Rather, we need to ensure that students understand that reading and highlighting are precursors to more effective learning strategies, and then support our students in being able to utilize those more effective strategies.[68]

Does it matter whether the text is on a screen rather than paper? The jury is still out. Research before 1992 suggested that individuals who read text on screens read more slowly, less accurately, and had a lower level of comprehension than when reading text on paper.[69] However, the studies conducted since then have been far less conclusive, although most still show higher gains when reading on paper, especially when the text is especially long or dense.[70] A 2003 study comparing reading media found that students who read text on screens could recall data at rates comparable to students who read the same material on paper, but demonstrated lower levels of comprehension.[71] Indeed, studies have shown that reading digital text on screens is more exhausting mentally and visually than reading on paper.[72] If we want to be the "World's Best Law Professor," these are the things that we need to be considering in the early 21st century: not just what text our students should be reading, but how the media we select may affect their learning of that text.

Make Them Take Notes—by Hand!

While we are taking a long hard look at those two-pound, 20th century-style casebooks, we might as well reopen the "laptops in the classroom" debate.[73] After all, as classrooms become more media-rich, students believe (and many professors agree) laptops facilitate students' ability to collaborate, extend learning through links and online activities, manipulate texts, and, of course, take more notes more quickly.[74] However, empirical study after study

---

67. John Dunlosky, *Strengthening the Student Toolbox: Study Strategies to Boost Learning*, Am. Educator, Fall 2013, at 12, 20.

68. *Id*.

69. Ferris Jabr, *The Reading Brain in the Digital Age: The Science of Paper Versus Screens*, Sci. Am. (Apr. 11, 2013), http://www.scientificamerican.com/article/reading-paper-screens/.

70. *Id*.

71. Jan M. Noyes & Kate J. Garland, *Solving the Tower of Hanoi: Does Mode of Presentation Matter?,* 19 Computers Hum. Behav. 579 (2003).

72. Erik Wästlund et al., *Effects of VDT and Paper Presentation on Consumption and Production of Information: Psychological and Physiological Factors*, 21 Computers Hum. Behav. 377 (2005).

73. *See, e.g.*, Kristen E. Murray, *Let Them Use Laptops: Debunking the Assumptions Underlying the Debate over Laptops in the Classroom,* 36 Okla. City U. L. Rev. 185 (2011); Kevin Yamamoto, *Banning Laptops in the Classroom: Is It Worth the Hassle?*, 57 J. Legal Educ. 477 (2007) (conveying professors' fear that laptops distract students from classroom discussions).

74. Studies confirming students' belief that laptop use in the classroom benefits their educational experience include, for example, Miri Barak, et al., *Wireless Laptops as Means for Promoting Active Learning in Large Lecture Halls*, 38 J. Res. on Tech. Educ. 245 (2006); Ananda Mitra & Timothy Steffensmeier, *Changes in Student Attitudes and Student Computer Use in a Computer-Enriched Environment*, 32 J. Res. on Computing Educ. 417 (2010).

demonstrates that the use of laptops in the classroom has a negative impact on student learning by distracting them from focusing on classroom tasks.[75] Moreover, students who use laptops in the classroom do not perform as well academically,[76] and are less satisfied with their educational experience.[77]

In addition, the latest educational research out of Princeton University finds that even when students are not distracted from classroom activities, even the basic process of taking notes on a keyboard rather than by hand compromises a student's learning as measured by retention, comprehension, and ability to synthesize and generalize.[78] Across three separate experiments, it was clear that students who use keyboards take more notes, but learn less than students who take notes by hand.[79] This was true even when the students were instructed not to take notes verbatim. The researchers who conducted the research believe that the cognitive processes entailed in note taking by hand are different from those used on a keyboard.[80] Students who take notes by keyboard are able to type much faster and so tend to write close to what the instructor actually said, whereas students who handwrite their notes have to summarize the material, which requires a higher level of intellectual engagement than mere transcription.[81] Greater engagement heightens retention and comprehension, whereas students who are typing can transcribe a lecture while on mental "auto pilot." Indeed, the researchers found that there was an association between high-verbatim notes and low retention.[82] These results endured even with students who were given opportunities to review their notes after a moderate period (one week) between content delivery and assessment.[83]

The lessons from this latest research on note taking compels law professors committed to effective teaching techniques to approach the question of how

---

75. *See, e.g.*, Robin H. Kay & Sharon Lauricella, *Exploring the Benefits and Challenges of Using Laptop Computers in Higher Education Classrooms: A Formative Analysis*, 37 Can. J. Learning & Tech. 1 (2011); James M. Kraushaar & David C. Novak, *Examining the Effects of Student Multitasking with Laptops During the Lecture*, 21 J. Info. Systems Educ. 241 (2010); Richard Skolnick & Mia Puzo, *Utilization of Laptop Computers in the School of Business Classroom*, 12 Acad. Educ. Leadership J. 1 (2008); Jeffrey Sovern, *Law Student Laptop Use During Class for NonClass Purposes: Temptation v. Incentives*, 51 U. Louisville L. Rev. 483 (2013).

76. Carrie B. Fried, *In-Class Laptop Use and Its Effects on Student Learning*, 50 Computers & Educ. 906 (2008); Michael Grace-Martin & Geri Gay, *Web Browsing, Mobile Computing, and Academic Performance*, 4 Educ. Tech. & Soc. 95 (2001); Kraushaar & Novak, *supra* note 75.

77. Christian Wurst et al., *Ubiquitous Laptop Usage in Higher Education: Effects on Student Achievement, Student Satisfaction, and Constructivist Measures in Honors and Traditional Classrooms*, 51 Computers & Educ. 1766 (2008).

78. Pam A. Mueller & Daniel M Oppenheimer, *The Pen Is Mightier than the Keyboard: Advantages of Longhand Over Laptop Note Taking*, 25 Psychol. Sci. 1159 (2014).

79. *Id*.

80. *Id*.

81. *Id*.

82. *Id*.

83. *Id*.

best to integrate technology in the classroom with humility and caution. We know that when law students use laptops in class, one study showed that ninety percent (90%) go online for at least five minutes, and approximately sixty percent (60%) are distracted for approximately half the class.[84] The practice is not unique to law students. A study of college students showed that when they use laptops in class, forty percent (40%) of their class time is spent using applications unrelated to their coursework.[85] Thus, decisions to block all Internet access, email, messaging, and other applications unrelated to coursework are tempting to consider in order to improve student learning outcomes.[86]

But now this latest research suggests that even such Draconian measures do not go far enough. To be the "World's Best Law Professor," it seems we may have to return to pen and paper. But will that be far enough? Remember that at one point in history, the invention of writing was decried by Plato as a threat to oral tradition and reliance on human memory, and Gutenberg's advances in movable type were seen by many critics as a threat to the art of handcrafted manuscripts.[87] The challenge, then, is to help our students to bridge the future without compromising their learning outcomes; but how, now that we know the data?

Can They at Least Brief Cases?

Shortly after a draft of this essay was posted online for feedback, a colleague from another school contacted me to ask about the utility of case briefing, especially for 1Ls. One of the most frustrating things about being a legal educator is that there is almost no quantitative pedagogical research focused specifically on legal education and our dominant teaching and learning techniques. Thus, most of the educational research cited in this essay is drawn largely from general pedagogical research on how the human mind learns with a discriminating eye favoring studies of populations of learners similar to law school students[88] or results that endure across varying populations of learners.[89]

Although I found no studies examining the effects of case briefing specifically, summarization is a technique that was examined in the Dunlosky meta-analysis.[90] The researchers ranked summarization as a low utility study

---

84.   Sovern, *supra* note 75.

85.   Kraushaar & Novak, *supra* note 75.

86.   Cindi May, *A Learning Secret: Don't Take Notes with a Laptop*, Sci. Am. (June 3, 2014), http://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/.

87.   Christine L. Borgman, From Gutenberg to the Global Information Infrastructure: Access to Information in the Networked World 82 (2003).

88.   *See*, *e.g.*, the spaced education studies conducted of medical students by Kerfoot, *supra* note 14.

89.   *See*, *e.g.*, the high utility methods identified by Dunlosky et al., *supra* note 12.

90.   *Id.* at 14.

method because in order for it to be effective, the learner must be skilled at summarizing and most people are not.[91] Thus, if law schools are going to encourage law students to use this technique, they should provide robust training to their students on how to summarize or brief cases.

The Dunlosky meta-analysis also rated summarization low utility because it does not show retention and comprehension across tasks.[92] For example, some studies suggest that summarizing helps performance with a generative test (such as an essay exam like we historically have administered in legal education), but not with a recognition test such as multiple choice.[93] The one study that did involve high-stakes testing, such as we use in legal education, showed no benefit from summarization, but that was a multiple choice exam.[94] In short, summarization will most likely help if students know how to do it well and if the assessment is generative rather than focused on evaluation and synthesis (in fact, some studies have shown a worse performance among students who used summarization as a study technique for assessments that include evaluative questions and those that involve synthesis of content).[95] Overall, Dunlosky et al. concluded that summarizing was a more effective learning technique than rereading, about comparable to taking notes, but less effective than other study techniques such as self-questioning or generating explanations.[96]

In response to my summary of Dunlosky's findings on summarization as a learning technique, the colleague who inquired about this study method shared his own qualitative experience using case summaries, and his perception that case summaries are probably more useful and efficient in the first few weeks of law school than later in a law students' career. Although I do not disagree with his perception, the fact is that neither he nor I have any quantitative research to support our qualitative experiences and perceptions—and this is a significant failing in legal education today. Too little time and energy has been devoted to supporting, conducting, and studying quantitative research on how law school students learn best. Law schools have been teaching students in the United States for over two hundred years. We have had more than enough time to study how best to teach our students using the most effective and efficient methods. Where is the body of pedagogical research reflecting the last 236 years of teaching experience in America's law schools? How can we be the best if we don't even know what works best?

91. *Id.* at 18. Dunlosky et al. note that summarization is a more feasible learning method for undergraduates and other more advanced learners who already know how to summarize, but case summaries have some unique characteristics that would justify further specialized training for law students to ensure that the learning technique is effective.

92. *Id.* at 17.

93. *Id.*

94. *Id.*

95. *Id.*

96. *Id.* at 18.

Becoming the best requires us to reprioritize our research endeavors and create value around quantitative educational research focused specifically on law school students. We need to collaborate with our colleagues in schools of education, educational psychologists, and others to design and conduct studies to determine what works best for our population of learners. And once we identify those high utility methods beyond those highlighted in this essay, we have to then partner, not just with one another within and across law schools but with software programmers, textbook publishers, building designers, and others to develop the curriculum, resources, and experiences that our students need to learn as efficiently and effectively as possible.

Be There

Finally, anyone who aspires to the "World's Best Law Professor" must be mindful of the voluminous data that continue to show the importance of the professor as a human mentor and teacher to her students.[97] In the 21st century, it is natural for educators to become excited by the myriad technological resources that are available to support our classrooms and our students. It is also understandable that we want to apply the research we are rapidly learning about the most effective teaching and study methods. But in the midst of our increasing knowledge and abilities, we must not lose sight of the fact that our students are human, and so are we. Those human interactions—teacher to student—have a profound impact on our students' learning experiences.[98] Whereas computers and learning apps and the Internet can extend and enhance our teaching and our courses and help us to individualize our students' education and monitor their progress, they cannot replace the human presence and intelligence and emotion that we bring to the educational process.[99]

Whether one looks at the number of contact hours between faculty and students[100] or the promptness with which professors respond to student emails,[101] we know that the relationships that professors develop with their students matter not just during class or even school, but across life. Students who have "a professor who care[s] about them as a person, ma[kes] them excited to learn, and encourage[s] them to pursue their dreams" are more than twice as likely to be engaged at work after they graduate, and to be far more likely to thrive in all aspects of their well-being after graduation, than those

97.   Paul D. Umbach & Matthew Wawrzynski, *Faculty Do Matter: The Role of College Faculty in Student Learning and Engagement*, 46 Res. Higher Educ. 153 (2005).

98.   Guadalupe Anaya & Darnell G. Cole, *Latina/o Student Achievement: Exploring the Influence of Student-Faculty Interactions on College Grades*, 42 J. C. Student Dev. 3, 12 (2001).

99.   Lacy N. Karpilo, Engineering Students' and Faculty Perceptions of Teaching Methods and the Level of Faculty Involvement that Promotes Academic Success (2008).

100. Mario Guerrero & Alice Beth Rod, *Engaging in Office Hours: A Study of Student-Faculty Interaction and Academic Performance*, 9 J. Pol. Sci. Edu. 403 (2013) (finding that teacher office hours have a substantial effect on student academic performance).

101. *See generally* Schwartz et al., *supra* note 2.

who did not.[102] So, if you want to be the "World's Best Law Professor," take the time to get to know your students, care about and encourage them, and share your own excitement about what you are teaching.

Conclusion

Every day we come to campus, we each have a choice. Do we want to strive to be the best law professor possible, or are we willing to risk being the worst? If you want to be the worst, then your path is an easy one. Don't let your students teach or practice. Lecture a lot. Don't make time for them. Let your students surf the Internet during class and take notes on their laptops. Give them text-heavy reading assignments, a bag of highlighters, and encourage them to reread their text and their verbatim notes while cramming for a high-risk exam at the end of your course. Pretend that you are being rigorous and preparing them for the "real world" of law.

But if you want to be the "World's Best Law Professor," it is going to require a lot more thought and a lot more heart. You will need to rethink your teaching methods, your students' study methods, even your law school's curriculum. You will have to figure out how best to harness the latest technologies to support frequent low-risk testing for your students and individualized content delivery at ideal intervals across time while interleaving subjects in meaningful and intentional ways. You will need to identify and create opportunities for your students to teach, collaborate, solve problems, and apply what they are learning through practice. All the while, you will need to maintain personal and enthusiastic teaching and mentoring relationships with your students if you want to have a positive, lifelong impact on them.

But perhaps you do not want either. Perhaps what is driving you to read this essay and consider the latest educational research is not your desire to be the "World's Best Law Professor," but rather, your commitment to help your students to do *their* best. If this drive, coupled with a humbling awareness of your own inadequacies and failings, is motivating you to read and learn and grow as a teacher by learning as much as you can about how best to help others learn, then you already know that learning to be the best does not start with us. It starts with our students. It is only when our focus is on helping our students to do their best that we, in turn, can become better, and maybe one day, our very best.

---

102.   Gallup, Inc., Great Jobs Great Lives: The 2014 Gallup-Purdue Index Report: A Study of More than 30,000 College Graduates across the U.S. 6 (2014). It is interesting to note that students who have externships or applied learning opportunities (such as jobs or clinics) during school, are active in extracurricular activities, and worked on projects across one or more semesters are also twice as likely to be engaged at work after graduation than those who do not have these experiences. *Id.*