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**THE SCIENCE OF SUCCESSFUL TEACHING: INCORPORATING  
MIND, BRAIN, AND EDUCATION RESEARCH INTO THE LEGAL  
WRITING COURSE**

NANCY E. MILLAR\*

“[D]esigning educational experiences without an understanding of the brain [is] like designing a glove without an understanding of the human hand . . . .”

—Tracey Tokuhama-Espinosa<sup>1</sup>

“[W]e know a little of what goes on in the brain when we learn, but hardly anything about what goes on in the brain when we teach.”

—Sarah-Jayne Blakemore & Uta Frith<sup>2</sup>

INTRODUCTION

Despite more than 200 years of legal education, “there is almost no quantitative pedagogical research focused specifically on legal education and [its] dominant teaching and learning techniques.”<sup>3</sup> As a consequence, legal educators frequently turn to research in other fields to help inform best practices in law schools.<sup>4</sup>

One such field, the emerging discipline of mind, brain, and education (“MBE”) science, offers valuable insights into how the human brain works, how humans learn, and how teachers can teach to optimize learning. While MBE research applies to all facets of teaching and to all subjects, this paper explores its relationship to a specific law school topic that is both increasingly important and difficult to teach: instruction on fundamental writing mechanics in a first-year legal writing course.

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\* Legal Writing Professional, Atlanta’s John Marshall Law School. This article was funded by a 2017 LWI/ALWD/LexisNexis Scholarship Grant. Many thanks to Dean Anthony Niedwiecki and the other members of the grant committee.

1. TRACEY TOKUHAMA-ESPINOSA, MIND, BRAIN, AND EDUCATION SCIENCE 57-58 (2010) (hereinafter “MBE SCIENCE”) (citing LESLIE A. HART, HUMAN BRAIN & HUMAN LEARNING (Longman Publishing Group 1983)).

2. MBE SCIENCE, *supra* note 1, at 17 (quoting SARAH-JAYNE BLAKEMORE & UTA FRITH, THE LEARNING BRAIN: LESSONS FOR EDUCATION 118 (2008)).

3. Warren Binford, *How to Be the World’s Best Law Professor*, 64 J. LEGAL EDUC. 542, 558 (2015).

4. *See, e.g., id.* at 558.

As discussed in this article, clear writing is essential to effective lawyering, yet instruction on writing mechanics—the building blocks of clarity—poses unique challenges to law schools and law professors. One way to surmount these challenges is to apply MBE research to teaching mechanics in order to make this instruction more effective.

#### I. THE IMPORTANCE OF TEACHING FUNDAMENTAL WRITING MECHANICS IN LEGAL WRITING CLASSES

At heart, lawyers are communicators, and they communicate mainly through writing.<sup>5</sup> Because “[l]egal writing is at the heart of law practice, . . . it is especially vital that legal writing skills be developed and nurtured through carefully supervised instruction.”<sup>6</sup> This instruction historically came from an apprenticeship, on-the-job training, or more recently, a combination of first-year legal writing classes and law firm training.<sup>7</sup> Today, law schools typically teach legal writing to first-year students in required courses taught by full-time faculty.<sup>8</sup>

Despite the fact that legal writing has been a required first-year subject for decades, law students and lawyers continue to wrestle with basic writing skills.<sup>9</sup> For example, “One empirical study found that approximately 94% of both federal and state judges surveyed reported that basic writing problems routinely marred the briefs they read, and that a clear majority of respondents thought that new members of the profession did not write well.”<sup>10</sup> These writing deficiencies

5. DEBORAH E. BOUCHOUX, ASPEN HANDBOOK FOR LEGAL WRITERS xxi (3rd ed. 2013).

6. Joseph Kimble, *Notes Toward Better Legal Writing*, MICH. B.J., Oct. 1996, at 1072-73 (quoting COUNCIL OF THE SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, LONG-RANGE PLANNING FOR LEGAL EDUCATION IN THE UNITED STATES 29 (1987)).

7. Chad G. Asarch, *The Challenge of Practical Legal Education: A Study in Real Estate Transactions*, COLO. LAW., July 2014, at 101.

8. See ALWD/LWI ANNUAL LEGAL WRITING SURVEY - REPORT OF THE 2016-2017 SURVEY 9, <https://www.lwionline.org/sites/default/files/Report%20of%20the%202016-2017%20Survey.pdf> [<https://perma.cc/D5N4-L3CE>]; John A. Lynch, Jr., *Teaching Legal Writing After A Thirty-Year Respite: No Country for Old Men?*, 38 CAP. U. L. REV. 1, 5 (2009).

9. See, e.g., Aïda M. Alaka, *Phenomenology of Error in Legal Writing*, 28 QUINNIPAC L. REV. 1, 2 (2009) (citing Debra R. Cohen, *Competent Legal Writing—A Lawyer’s Professional Responsibility*, 67 U. CIN. L. REV. 491, 493-94 (1999)).

10. Mark K. Osbeck, *What Is “Good Legal Writing” and Why Does It Matter?*, 4 DREXEL L. REV. 417, 420 n. 12 (2012) (citing Susan Hanley Kosse & David T. ButleRitchie, *How Judges, Practitioners, and Legal Writing Teachers Assess the Writing Skills of New Law Graduates: A Comparative Study*, 53 J. LEGAL EDUC. 80, 85-86 (2003)); Alaka, *supra* note 9, at 2 (citation omitted). On the other hand, those who disagree with teaching legal writing at all are quick to argue either that law students’ and graduates’ writing is no worse than it has always been or that good writing cannot be taught at all, or both. See, e.g., Amy M. Colton, *Eyes to the Future, Yet Remembering the Past: Reconciling Tradition with the Future of Legal Education*, 27 U. MICH. J.L. REFORM 963, 984 (1994) (quoting Willard Pedrick et al., *Should Permanent Faculty Teach First-Year Legal Writing? A Debate*, 32 J. LEGAL EDUC. 413 (1982)); Danny Jacobs, *Why Lawyers*

among practitioners were the same deficiencies “evident in the writing of first-year law students.”<sup>11</sup> Similarly, more experienced practitioners complain that new lawyers lack writing and other skills.<sup>12</sup>

Back in 1979, an American Bar Association (“ABA”) Task Force recognized “the central importance of effective writing to a wide range of lawyer work,” but noted “that too few students receive rigorous training and experience in legal writing during their three years of law study. . . . [M]any students, probably most students, receive very little opportunity to write with close supervision and critique as a continuing part of their law school experience.”<sup>13</sup> And in 1992, the MacCrate Report stated: “[C]omplaints heard by the Task Force concerning law graduates’ writing skills suggest that further concerted effort is required to teach legal writing at a better level than is now generally done both in the law schools and in bridge-the-gap programs after law school.”<sup>14</sup>

Although the problems are not new, there are widespread concerns that law students’ and lawyers’ writing deficiencies are getting worse.<sup>15</sup> In light of recent

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*Should Mind Their P’s and Q’s (and Punctuation, Too)*, DAILY RECORD, Jan. 12, 2018, <http://thedailyrecord.com/2018/01/12/on-the-record-legal-brief-english-teacher/> [<https://perma.cc/TJ2C-PHBE>] (quoting an order from the U.S. District Court for the Southern District of Florida that chastises a 1992 law school graduate for filing a proposed second amended complaint “replete with grammatical errors, including improper punctuation, misspelling of words, incorrect conjugation of verbs, and lack of apostrophes when required for possessive adjectives; sentence fragments; and nonsensical sentences” and ordering the attorney to have his future filings in the case reviewed by an English teacher before submission to the court).

11. Alaka, *supra* note 9, at 3 (citing Kosse & ButleRitchie, *supra* note 10, at 92).

12. Richard A. Matasar, *Skills and Values Education: Debate About the Continuum Continues*, 19 N.Y.L. SCH. J. HUM. RTS. 25, 58 (2003).

13. Kimble, *supra* note 6, at 1072-73 (citing SECTION OF LEGAL EDUCATION AND ADMISSIONS TO THE BAR, REPORT AND RECOMMENDATIONS OF THE TASK FORCE ON LAWYER COMPETENCY: THE ROLE OF THE LAW SCHOOLS 15 (1979)); *see also infra* text accompanying notes 105-09.

14. Kirsten A. Dauphinais, *Sea Change: The Seismic Shift in the Legal Profession and How Legal Writing Professors Will Keep Legal Education Afloat in Its Wake*, 10 SEATTLE J. FOR SOC. JUST. 49, 68-69 (2011).

15. *See, e.g.*, Scott Fruehwald, *The Importance of Formative Assessment for Improving Law Student Learning*, Apr. 20, 2017, [http://lawprofessors.typepad.com/legal\\_skills/2017/04/the-importance-of-formative-assessment-for-improving-law-student-learning.html](http://lawprofessors.typepad.com/legal_skills/2017/04/the-importance-of-formative-assessment-for-improving-law-student-learning.html) [<https://perma.cc/6WAU-ZC2T>] (“Law schools have changed radically over the last fifty years. More students are going to law school, and these students come from very diverse backgrounds. In addition, many of these students come from poor educational backgrounds. Furthermore, colleges seem to be dumbing down their curriculums, particularly in the areas of writing, logical thinking, and critical reasoning. Some law schools have reacted to the new type of students; others haven’t.”); Jennifer M. Cooper, *Smarter Law Learning: Using Cognitive Science to Maximize Law Learning*, 44 CAP. U. L. REV. 551, 551-52 (2016) (“Legal educators do not need empirical research to tell them what they already know: many students coming to law school are ill-prepared for the academic rigors of law study. Undergraduate institutions are failing to teach greater numbers of students how to study and learn, how to self-regulate their learning, and how to think critically. To make matters worse,

changes in elementary, secondary, and college education; plummeting enrollment numbers in legal education;<sup>16</sup> and the resulting lowering of admission standards at many law schools,<sup>17</sup> law professors recognize that incoming students begin with an even greater deficit in writing skills than previous generations of students.<sup>18</sup>

For that reason, the ABA Standards and Rules of Procedure for Approval of Law Schools require that law schools establish learning outcomes designed to result in competency in “[l]egal analysis and reasoning, legal research, problem-solving, and written and oral communication in the legal context.”<sup>19</sup> Standard 303 requires “one writing experience in the first year and at least one additional writing experience after the first year.”<sup>20</sup>

Traditionally, legal writing classes cover various topics, including:

the United States court system, case briefing, effective case reading, issue spotting, use of analogies and distinctions, case synthesis, rule analysis, rule application, making legal arguments, outlining techniques, large-scale and

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fewer qualified candidates are applying to law school, forcing many law schools to lower admission standards. Law schools are inheriting more less-prepared students for the study of law than ever before.”) (citations and footnotes omitted).

16. Binford, *supra* note 3, at 554.

17. Elizabeth Olson, *Study Cites Lower Standards in Law School Admissions*, N.Y. TIMES, Oct. 26, 2015; *see also* LAW SCHOOL TRANSPARENCY, KEY FINDINGS (2015), <https://www.law-schooltransparency.com/reform/projects/investigations/2015/key-findings/> [<https://perma.cc/L74G-4339>]; Rebecca Flanagan, *The Kids Aren't Alright: Rethinking the Law Student Skills Deficit*, 2015 BYU EDUC. & L.J. 135, 137 (2015) (“The drop in law school matriculants since 2010 . . . means that fewer bright and prepared students are pursuing legal education. Therefore, more students attending law school will need additional support in order to master the sophisticated, higher-order thinking skills necessary for law school success.”).

18. Flanagan, *supra* note 17, at 135 (“recent research suggests that incoming law students are less prepared than previous generations of law students”); Rebecca C. Flanagan, *Do Med Schools Do It Better?: Improving Law School Admissions by Adopting a Medical School Admissions Model*, 53 DUQ. L. REV. 75, 78-79 (2015) (noting that the “relaxation of admissions standards has been especially pronounced since 2011”); *id.* at 81-82 (“Empirical research suggests college graduates who apply to law school today are far less qualified than previous generations of applicants. Recent empirical studies have questioned the rigor of many undergraduate programs. Many college students that graduate from bachelor’s programs show few gains in critical thinking, reasoning, and writing skills.”) (footnotes omitted); *see generally* Aida M. Alaka, *The Grammar Wars Come to Law School*, 59 J. LEGAL EDUC. 343 (2010).

19. AM. BAR ASS’N, 2018-2019 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS, at 15, [https://www.americanbar.org/content/dam/aba/publications/misc/legal\\_education/Standards/2018-2019ABASStandardsforApprovalofLawSchools/2018-2019-aba-standards-chapter3.authcheckdam.pdf](https://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Standards/2018-2019ABASStandardsforApprovalofLawSchools/2018-2019-aba-standards-chapter3.authcheckdam.pdf) [<https://perma.cc/EW7Q-LPSZ>].

20. *Id.*; *but see* William D. Woodworth, *The Ethics and Science of the Legal Writing Art: An Interdisciplinary Approach*, 67 SYRACUSE L. REV. 329, 355 n. 3 (2017) (noting that “the ABA’s standards do not require any particular level of rigor for these writing experiences [and] the ABA provides minimal guidance on what the writing experience should include, unlike its more detailed guidance for professional responsibility or experiential courses”).

small-scale organization, writing style, editing, rewriting, basic formats for legal memoranda and briefs, legal citation, persuasive writing, oral advocacy, client counseling, and client interviewing.<sup>21</sup>

Given the importance of clarity to effective, ethical legal writing and in light of students' decreasing skills, however, the traditional legal writing class must evolve to include writing mechanics. As discussed below, adding mechanics to the curriculum need not derail the existing goals of a legal writing program, and the subject should not be taught in isolation. Instead, first-year writing classes should integrate mechanics into a robust introduction to legal writing that addresses existing deficiencies while building new skills.

#### A. *Good Writing Skills Are Critical to Good Lawyering*

A lawyer's ability to write well is highly prized. For example, "[l]aw firm hiring partners often say that the two most important factors in deciding whether to hire a job applicant are the quality of the applicant's writing sample and the extent to which the applicant conveys professionalism when interviewed."<sup>22</sup> Furthermore, after hiring, "[e]xcellent writing skills are a form of future job security."<sup>23</sup> One prominent attorney equated writing proficiency not only with good grades in law school, but also with being promoted in law practice.<sup>24</sup> Others see good writing as essential to ethical, competent legal representation.<sup>25</sup>

Whether drafting emails, letters, office memoranda, pleadings, motions, briefs, or a host of other documents, lawyers meet the needs and expectations of their clients and audience when they write clearly.<sup>26</sup> Clarity not only enables the reader to understand the lawyer's message, but also promotes confidence in the writer.<sup>27</sup> Confidence in lawyers in turn promotes confidence in the legal system as a whole.<sup>28</sup> "Clarity, therefore, is the most basic quality of good legal writing.

21. Julie A. Oseid, *It Happened to Me: Sharing Personal Value Dilemmas to Teach Professionalism & Ethics*, 12 LEGAL WRITING: J. LEGAL WRITING INST. 105, 140 (2006).

22. RICHARD K. NEUMANN, JR., J. LYN ENTRIKIN & SHEILA SIMON, LEGAL WRITING 1 (3rd ed.).

23. *Id.* at 1 (quoting Mark E. Wojcik, 3 PERSP. 7 (1994), <http://info.legalsolutions.thomsonreuters.com/pdf/perspec/1994-fall/1994-fall.pdf> [<https://perma.cc/P6RW-GU64>]).

24. *Id.* (quoting Richard S. Lombard, *Remarks*, in ABA Section of Legal Educ. & Admission to the Bar, *Lost Words: The Economical, Ethical and Professional Effects of Bad Legal Writing* 54 (Occasional Paper No. 7, Aug. 5, 1993)).

25. See, e.g., Ann L. Nowak, *Tough Love: The Law School that Required its Students to Learn Good Grammar*, 28 TOURO L. REV. 1369, 1370-71 (2012); Debra R. Cohen, *Competent Legal Writing—A Lawyer's Professional Responsibility*, 67 U. CIN. L. REV. 491, 492 (1999); Lucia Ann Silecchia, *Legal Skills Training in the First Year of Law School: Research? Writing? Analysis? Or More?*, 100 DICK. L. REV. 245, 269 (1996).

26. See Nowak, *supra* note 25, at 1370-71.

27. See NEUMANN, *supra* note 22, at 185.

28. In re Disciplinary Action Against Hawkins, 502 N.W.2d 770, 771 (Minn. 1993); *Public Trust and Confidence Resource Guide*, NATIONAL CENTER FOR STATE COURTS, <http://www.ncsc>.

For it is only when writing is clear that the reader can accurately comprehend the writer's message and use that information to facilitate professional decision-making."<sup>29</sup> As one court noted, "Public confidence in the legal system is shaken when lawyers disregard the rules of court and when a lawyer's correspondence and legal documents are so filled with spelling, grammatical, and typographical errors that they are virtually incomprehensible."<sup>30</sup>

If clarity is the essential goal of legal writing, then it is critical to identify what qualities and components make writing clear. The literature on this subject is "fairly well[ly]developed" and "[a]s a starting point, clarity requires proper (i.e., conventional) grammar and punctuation."<sup>31</sup> The use of the conventional mechanics of writing—that is, proper grammar, punctuation, spelling, and syntax—permits language and meaning to be shared, facilitating clarity among a document's many readers.<sup>32</sup> Without this "possibility of shared meaning, [there would be] no possibility of language itself."<sup>33</sup>

While writers and readers can differ on the nuances of mechanics—whether it is correct to end a sentence with a preposition, for example—a consistent approach to writing that reflects generally followed conventions facilitates clarity.<sup>34</sup> That is true even though "there may even be instances when ignoring some of these minor rules rather than following them rigidly advances clarity."<sup>35</sup>

Thus, general adherence to the conventional rules of writing mechanics remains essential to the facilitation of communication from writer to reader and crucial for legal writers who must communicate clearly in order to serve their function. Because "the greater the deviation from the core rules of grammar, syntax, and semantics, the more difficult it will be for the reader to understand

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org/Topics/Court-Community/Public-Trust-and-Confidence/Resource-Guide.aspx [https://perma.cc/92SV-EYTC] (last visited Nov. 12, 2018) (stating that "public trust and confidence is a precious commodity for the courts"). Notably, lawyers who write well are merely one cog in a wheel of the justice system, and they are insufficient to guarantee public confidence in the face of the multitude of challenges to the rule of law that the United States has faced in recent years. *See, e.g.*, Cara Tabachnick, *Poll: Young Americans Have "Little Confidence" in Justice System*, CBS NEWS (Apr. 30, 2015), <https://www.cbsnews.com/news/poll-young-people-have-little-confidence-in-justice-system/> [https://perma.cc/B8DQ-E7ZX].

29. Osbeck, *supra* note 10, at 428 (citing CHARLES R. CALLEROS, *LEGAL METHOD AND WRITING* 3 (5th ed. 2006)).

30. *Hawkins*, 502 N.W.2d at 771.

31. Osbeck, *supra* note 10, at 428.

32. *Id.*; Bouchoux, *supra* note 5, at xxi; *but see, e.g.*, Bronwen Clune, *My Problem with Grammar Snobs*, *GUARDIAN* (Oct. 3, 2013), <https://www.theguardian.com/commentisfree/2013/oct/03/my-problem-with-grammar-snobs> [https://perma.cc/M86P-CLA7] (arguing against "grammatical elitism [that] functions to socially exclude others based on class, education or luck").

33. Osbeck, *supra* note 10, at 428.

34. *Id.* at 428-29.

35. *Id.* at 429; *but see id.* at 428 n.35 (noting the argument that "conforming to grammatical rules is frequently an enormous waste of time") (quoting JOHN BRONSTEEN, *WRITING A LEGAL MEMO* 35-37 (2006)).

the writer's message," law students and lawyers must learn and apply these core rules.<sup>36</sup>

*B. Law Students No Longer Come to Law School Equipped with Adequate Writing Skills*

Colleges complain that high school graduates cannot write.<sup>37</sup> Law schools complain that college graduates are not prepared for graduate school<sup>38</sup> and that "most law students lack basic writing skills."<sup>39</sup> Notably, there is debate about whether lawyers' and law students' poor writing skills are new and unique to current students and practitioners, or whether poor writing skills are a continuing problem that began long ago.<sup>40</sup> But faced with a "startling erosion of entering students' academic preparation and the increasing numbers of academically underprepared law students,"<sup>41</sup> some law professors and law schools are

36. Osbeck, *supra* note 10, at 429 ("Of course, clear writing requires more than just staying within the rough confines of conventional grammar, syntax, and semantics.").

37. DAWN LATTA KIRBY & DARREN CROVITZ, *INSIDE OUT 2* (4th ed. 2013); Derek Bok, *Improving the Quality of Education*, *INSIDE HIGHER ED* (Sept. 21, 2017), <https://www.insidehighered.com/views/2017/09/21/how-improve-quality-higher-education-essay> [<https://perma.cc/2F6K-5YJY>] ("Employers complain that many graduates they hire are deficient in basic skills such as writing, problem solving and critical thinking that college leaders and their faculties consistently rank among the most important goals of an undergraduate education."); *see also* Sarah Butrymowicz, *Most Colleges Enroll Students Who Aren't Prepared for Higher Education*, *PBS NEWS HOUR* (Jan. 30, 2017), <https://www.pbs.org/newshour/education/colleges-enroll-students-arent-prepared-higher-education> [<https://perma.cc/Z43Z-HSGH>].

38. *See, e.g.*, Jennifer E. Spreng, *Spirals and Schemas: How Integrated Courses in Law Schools Create Higher-Order Thinkers and Problem Solvers*, 37 *U. LA VERNE L. REV.* 37, 39 (2015) ("Many undergraduate schools produce hopelessly unprepared prospective law students.").

39. John A. Lynch, Jr., *Teaching Legal Writing After A Thirty-Year Respite: No Country for Old Men?*, 38 *CAP. U. L. REV.* 1, 4 (2009).

40. *See, e.g.*, James Etienne Viator, *Legal Education's Perfect Storm: Law Students' Poor Writing and Legal Analysis Skills Collide with Dismal Employment Prospects, Creating the Urgent Need to Reconfigure the First-Year Curriculum*, 61 *CATH. U. L. REV.* 735, 741 (2012) (noting that "judges and attorneys have been complaining insistently for some thirty years that law graduates are unable to communicate effectively through both oral and written means"). Notably, generational bias means the young are criticized by their elders for all manner of failures. For example, a 1911 article in *Atlantic Monthly* eschewed the English skills of "[t]he rising generation," noting that it could not spell or properly use a dictionary and its English was "slipshod and commonplace, because it does not know the sources and resources of its own language." KIRBY & CROVITZ, *supra* note 37, at 5 (citation omitted). *See also* David Marsh, *The Pedants' Revolt: Lament for a Golden Age of Grammar that Never Existed*, *GUARDIAN* (Feb. 14, 2014), <https://www.theguardian.com/media/mind-your-language/2014/feb/14/mind-your-language-grammar-wars> [<https://perma.cc/Y8VN-FWXZ>].

41. Susan Stuart & Ruth Vance, *Bringing a Knife to the Gunfight: The Academically Underprepared Law Student & Legal Education Reform*, 48 *VAL. U. L. REV.* 41, 42 (2013).



scrambling to adjust their instruction in order to address, among other problems, falling bar-passage rates and increasing non-transfer attrition.<sup>42</sup>

Students' problems with writing start early and are often attributed to No Child Left Behind, the 2002 law that "largely overlooked writing in favor of reading comprehension assessed by standardized multiple-choice tests."<sup>43</sup> Writing in 2013, teacher-authors Dawn Latta Kirby and Darren Crovitz noted the "new world of teaching writing . . . dominated by curricula that have one clear goal in mind: Students must pass 'the writing test.'"<sup>44</sup> School districts tell teachers that passing this test is "the right thing—perhaps the only thing—about which [teachers] should care" and, thus, "[m]ore instructional time is devoted to the type of writing that is on the test."<sup>45</sup> Some argue that the type of writing favored by lawmakers—"narrow, standardized, and sanitized"—leads to writing that meets test-approved formats, but lacks voice and style.<sup>46</sup>

As some teachers have pointed out, "[i]f testing and prescribed curricula were all we needed to produce good writers, we'd be seeing dividends by now . . . not just decent test scores but also reports from colleges and employers about students' excellent preparation, learning, and abilities to write well."<sup>47</sup> As discussed *infra*,<sup>48</sup> colleges, employers, and graduate schools continue to complain about students' writing skills.<sup>49</sup>

Writing about pre-college education, Kirby and Crovitz also observe that "[o]ne-size-fits-all curricular and standardized exams do not fit the changing, decidedly nonstandardized demographics of contemporary school populations. As a group, our students are more ethnically, linguistically, and socially diverse than ever before."<sup>50</sup> These students bring "unique strengths and weaknesses in their language use," and schools "need to explore their strengths and improve areas of weakness in ways that inspire rather than demoralize and promote success rather than failure."<sup>51</sup>

However, even after passage of the Common Core State Standards designed to remedy the omission of writing under No Child Left Behind, U.S. students'

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42. Jerry Organ, *Updated Analysis of Law School Attrition Data—2018*, TAXPROF BLOG (Jan. 16, 2018), [http://taxprof.typepad.com/taxprof\\_blog/2018/01/updated-analysis-of-attrition-data-2018.html](http://taxprof.typepad.com/taxprof_blog/2018/01/updated-analysis-of-attrition-data-2018.html) [<https://perma.cc/TF5A-YCE2>].

43. Dana Goldstein, *Why Kids Can't Write*, N.Y. TIMES (Aug. 2, 2017), <https://www.nytimes.com/2017/08/02/education/edlife/writing-education-grammar-students-children.html> [<https://perma.cc/KXG7-FM7X>].

44. KIRBY & CROVITZ, *supra* note 37, at 1.

45. *Id.*

46. *Id.* at 3.

47. *Id.* at 2.

48. *See infra* text accompanying notes 9-18, 37-42.

49. KIRBY & CROVITZ, *supra* note 37, at 2; Sprenge, *supra* note 38, at 39.

50. KIRBY & CROVITZ, *supra* note 37, at 2.

51. *Id.* at 2-3.

writing continues to lag.<sup>52</sup> According to the 2011 National Assessment of Educational Progress, only twenty-seven percent of twelfth and eighth graders performed at or above the proficient level in writing.<sup>53</sup> In addition, “40 percent of those who took the ACT writing exam in the high school class of 2016 lacked the reading and writing skills necessary to complete successfully a college-level English composition class.”<sup>54</sup>

The conventions unique to legal writing compound law students’ problems with fundamental writing.<sup>55</sup> Because law students “are learning to write within a highly conventionalized discourse, law, in which legal arguments are constructed according to certain unwritten discourse rules, or conventions,” they confront a linguistic system that combines the familiar with the unfamiliar.<sup>56</sup> As law students struggle to learn these new rules of communication, they also must “master an entire new technical vocabulary.”<sup>57</sup> This process is often difficult for all novice law students,<sup>58</sup> but students trying to learn the “language” of legal writing who lack a solid foundation in English grammar and composition face a double disadvantage and a doubly difficult task: learning basic English writing while also trying to learn legal writing.

In law schools, not only writing skills are in decline. Today’s law students “are demonstrably less prepared for law school because their critical-thinking and problem-solving skills are significantly lower than those of students in the 1970s and 1980s.”<sup>59</sup> Problems with “legal writing skills indicate a deeper underlying problem with . . . legal literacy and academic literacy skills.”<sup>60</sup> As a

52. Goldstein, *supra* note 43.

53. *Id.*; U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 Writing Assessment, [https://www.nationsreportcard.gov/writing\\_2011/](https://www.nationsreportcard.gov/writing_2011/) [<https://perma.cc/K27Z-6SNA>].

54. Goldstein, *supra* note 43.

55. J. Christopher Rideout & Jill J. Ramsfield, *Legal Writing: The View from Within*, 61 MERCER L. REV. 705, 705-06 (2010).

56. Angela Diane Crocker, *Facing the Challenge of Improving the Legal Writing Skills of Educationally Disadvantaged Law Students in a South African Law School*, PER / PELJ, 2018, at n. 3, <https://journals.assaf.org.za/per/article/download/1368/6452/> [[perma.cc/K4ZS-V2HM](https://perma.cc/K4ZS-V2HM)] (quoting J. Christopher Rideout & Jill J. Ramsfield, *Legal Writing: A Revised View*, 69 WASH. L. REV. 35, 60 (1994)); GUNTER KRESS, LINGUISTIC PROCESSES IN SOCIOCULTURAL PRACTICE 5 (1985); J. Christopher Rideout & Jill J. Ramsfield, *Legal Writing: The View from Within*, 61 MERCER L. REV. 705, 705-06 (2010).

57. Crocker, *supra* note 56, at 8 (quoting Lesley A. Greenbaum, *Teaching Legal Writing at South African Law Faculties: A Review of the Current Position & Suggestions for the Incorporation of a Model Based on New Theoretical Perspectives*, 15 STELLENBOSCH L. REV. 3, 3-21 (2004)).

58. *Id.* at 8-9.

59. Stuart & Vance, *supra* note 41, at 41; *see also* Flanagan, *supra* note 17, at 136 (recognizing “the consensus emerging on undergraduate campuses that students are not developing the critical thinking, analytical reasoning, and writing skills that should be the cornerstone of their intellectual development”); Cooper, *supra* note 15, at 552.

60. Crocker, *supra* note 56, at 3 (citations omitted).

result of this lack of preparation, “law schools’ capacity to accomplish [their portfolio of] tasks is challenged by having to do more with less.”<sup>61</sup> This puts law schools in a difficult position, stuck between incoming students with increasingly poor basic skills and economy-challenged law firms that are unwilling to devote substantial resources to training new associates.<sup>62</sup>

## II. THE BARRIERS TO TEACHING WRITING MECHANICS TO LAW STUDENTS

Despite the widespread—though not universal—recognition of legal writing as an important law-school subject and increasing concerns about incoming students’ preparation and skills, legal writing professors continue to confront various challenges to teaching writing generally and to teaching writing mechanics specifically. As discussed below, resistance from the academy, legal writing professors themselves, and law students suggests that adding writing mechanics to the curriculum could be controversial and unpopular.

### A. *Resistance from the Academy*

Whether writing in general and grammar in particular can be taught at all is a much-debated question.<sup>63</sup> In law schools, some faculty question whether writing can be learned—and thus whether law schools should teach legal writing at all.<sup>64</sup> As noted by one legal writing professor, some law faculty believe “that the good writing fairy blesses you with the ability to write at birth, in the same way you might get good teeth. And if you are not blessed with the good writing gene, there is nothing a teacher can do, so law schools should not waste their money trying to teach Legal Writing.”<sup>65</sup>

Despite this pernicious belief, however, all law schools must require legal writing in order to maintain their accreditation with the ABA.<sup>66</sup> Arguably, the

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61. Stuart & Vance, *supra* note 41, at 41.

62. Anthony Niedwiecki, *Teaching for Lifelong Learning: Improving the Metacognitive Skills of Law Students Through More Effective Formative Assessment Techniques*, 40 CAP. U. L. REV. 149, 150-51 (2012).

63. See, e.g., Dauphinais, *supra* note 14, at 75; Stephen Krashen, *Teaching Grammar: Why Bother?* Cal. English (1988), [http://www.sdkrashen.com/content/articles/teaching\\_grammar\\_why\\_bother.pdf](http://www.sdkrashen.com/content/articles/teaching_grammar_why_bother.pdf) [<https://perma.cc/XEJ8-VBFX>]; Dina El-Dakhs, *So, Can Teaching Grammar Work?*, QSCIENCE (2014), <http://dx.doi.org/10.5339/connect.2014.6> [<https://perma.cc/E9AP-9ZEP>]. Notably, much of the research and debate about whether grammar can be taught and how best to teach it is in the context of second-language learners. See *id.*

64. Dauphinais, *supra* note 14, at 75.

65. *Id.* (quoting Mary Beth Beazley, *Better Writing, Better Thinking: Using Legal Writing Pedagogy in the “Casebook” Classroom (Without Grading Papers)*, 10 J. LEGAL WRITING INST. 23, 28 (2004)). Scholars also recognize that “power and social privilege” impact a student’s ability to write and communicate, because students from privileged backgrounds can more easily acquire the relevant academic discourse. See, e.g., Crocker, *supra* note 56, at 6-7 (quotation omitted).

66. AM. BAR ASS’N, 2018-2019 STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOL 16 (2018), available at <https://www.americanbar.org/content/dam/aba/publications/>

“competency in . . . written and oral communication in the legal context” mandated by the ABA<sup>67</sup> includes mastery of writing mechanics because inartfully drafted documents that are “ambiguous because of deficiencies in basic writing skills” can harm clients and lead to ethical violations.<sup>68</sup> Thus, “law schools should acknowledge the pervasiveness of their students’ writing deficiencies and attempt to remediate the problem on an institutional level rather than on a catch-as-catch-can basis by individual legal writing professors.”<sup>69</sup> While “[i]n a perfect world, law schools would not have to offer remedial writing education to their students . . . the world is imperfect[, and] secondary schools and colleges apparently are not requiring students to display a mastery of basic writing skills as a condition of graduation.”<sup>70</sup> Therefore, the burden of teaching mechanics falls to law schools “if the administration and faculty care about producing graduates who can write cogent and unambiguous professional documents.”<sup>71</sup>

There are additional concerns about “dumb[ing] down legal education,”<sup>72</sup> but “[p]ractice-centered teaching is not antithetical to intellectuality.”<sup>73</sup> Instead, “[t]he two kinds of legal knowledge—the theoretical and the practical—are complementary. Each must have a respected place in legal education.”<sup>74</sup> To that end, “[l]awyer[ing] skills is the junction where legal thinking and legal practice connect.”<sup>75</sup> Because clear writing is crucial to ethical, competent law practice,<sup>76</sup> teaching fundamental writing skills serves an important role in practical legal education. As one law professor noted, “[w]hat is the point of trying to teach [students] how to write cogent legal analysis when they lack the rudimentary building blocks from which to craft their analysis?”<sup>77</sup> And as another observed, teaching legal writing to students who lack basic writing skills is “like ‘building a brick house upon a straw foundation.’”<sup>78</sup>

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misc/legal\_education/Standards/2018-2019ABAStandardsforApprovalofLawSchools/2018-2019-aba-standards-chapter3.authcheckdam.pdf [https://perma.cc/3ZL9-A5UG].

67. *Id.*

68. Nowak, *supra* note 25, at 1371.

69. *Id.*

70. *Id.* at 1392.

71. *Id.*

72. Cooper, *supra* note 15, at 555.

73. Dauphinais, *supra* note 14, at 71.

74. *Id.*

75. *Id.*

76. *See, e.g.,* Debra R. Cohen, *Competent Legal Writing—A Lawyer’s Professional Responsibility*, 67 U. CIN. L. REV. 491, 493-94 (1999).

77. Nowak, *supra* note 25, at 1370.

78. *Id.* (quoting Matthew J. Arnold, *The Lack of Basic Writing Skills & Its Impact on the Legal Profession*, 24 CAP. U. L. REV. 227, 228 (1995)).

### B. *Resistance from Legal Writing Professors*

Legal writing professors may also resist the idea of adding writing mechanics to their classes for various reasons. They may lack experience in teaching mechanics and may resist teaching it because the topic is not respected or is considered boring and simplistic. Additionally, they may struggle to add additional material into an already crowded writing curriculum.

First, legal writing professors—and law professors in general—are sometimes ill-equipped and ill-prepared to teach writing mechanics to law students.<sup>79</sup> Although most writing professors likely provide feedback on mechanical issues<sup>80</sup> and grade students on errors, they may not teach the subject on its own. Historically, law schools did not teach basic English mechanics, fundamental writing skills, or even writing at all.<sup>81</sup> Thus, some current law professors may have never studied writing in general, legal writing in particular, or writing mechanics at the college or graduate-school level. This does not mean that today's legal writing professors cannot teach writing mechanics—many of them already do.<sup>82</sup> But it does mean that faculty may lack a model for doing so, and they may struggle with how to do so effectively.

Second, historically and presently, some law professors see legal writing as inferior to other law-school subjects, and many law schools afford unequal status and pay to legal writing professors.<sup>83</sup> Given the historic struggle to afford greater respect—and equal rights—to professors of legal writing, there is pushback to teaching what one writing professor called “subjects that are properly learned in junior high school.”<sup>84</sup> The concern is that, by teaching basic grammar, legal writing professors move further away from the legal subjects covered in non-

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79. Notably, some professors disagree that law professors should teach writing mechanics at all, arguing, for example, that “we who teach writing classes should stop acting like eighth-grade English teachers.” See Stewart Harris, *Giving Up Grammar and Dumping Derrida: How to Make Legal Writing A Respected Part of the Law School Curriculum*, 33 CAP. U. L. REV. 291, 296 (2004). Professor Harris argues that “[o]ur colleagues will not consider us their peers so long as we are teaching subjects that are properly learned in junior high school” and recommends sending students to the law school’s writing center for help with grammar and the like. *Id.* at 298-99. However, Professor Harris’s article seeks respect from other law school professors for professors who teach legal writing—not, as this article endeavors, strategies for how best to teach writing to students.

80. Alaka, *supra* note 9, at 16 (noting that because many law students struggle with how to use written feedback, they do “not, for the most part, consciously use written feedback to improve themselves as writers . . .”); see also Kate Brooks, ‘*Could do Better?*’: *Students’ Critique of Written Feedback* (2008), available at <https://www.heacademy.ac.uk/knowledge-hub/could-do-better-students-critique-written-feedback> [<https://perma.cc/DUY8-KM8L>].

81. See, e.g., Edward H. Telfeyan, *The “Grammar Bee”—One Way to Take the Pain Out of Teaching the Mechanics of Writing*, 17 PERSPS.: TEACHING LEGAL RES. & WRITING 25, 25-26 (2008).

82. *Id.*

83. Dauphinais, *supra* note 14, at 76-77, 77 n. 145 (citations omitted).

84. Harris, *supra* note 79, at 297.

writing courses and perhaps demean themselves by teaching topics that are too simple. In addition to concerns about status and respect, some legal writing professors point out that “teaching basic grammar isn’t what [they] signed on for” when joining a law school faculty.<sup>85</sup>

Furthermore, legal writing professors may view teaching mechanics as boring and requiring rote memorization, in contrast to teaching more dynamic topics such as legal analysis or persuasive writing. However, the idea that teaching mechanics is boring “is derived from the impression that grammar can only be taught through repetition and other rote drills.”<sup>86</sup> In contrast, “[t]eaching grammar in a way that engages students may require creativity, but the teaching need not and should not be boring.”<sup>87</sup> Learning mechanics also is not just about memorizing static rules; it is about learning rules, knowing where to find those rules, and applying those rules to new situations.<sup>88</sup> In this sense, it is entirely consistent with everything learned by law students, who focus on rules and rule application throughout their education.

To the extent that learning mechanics does require memorization of rules, that process is similar to learning legal citation, a subject commonly taught by legal writing professors. In the same way that faculty teach citation by introducing students to the Bluebook<sup>89</sup> or the ALWD Citation Manual<sup>90</sup> as a reference resource—intended to be studied and consulted, but certainly not memorized entirely—faculty can teach mechanics in a similar way. Students should know the foundational rules and concepts of writing mechanics, should be familiar with the tools they can use to ensure proper mechanics, and should be encouraged to use those tools frequently.

Finally, a common issue when considering adding to the curriculum in any law school course, including legal writing, is how to fit new material.<sup>91</sup> Many professors complain that the standard four- or six-credit first-year writing program leaves little room to cover the basics of legal writing, analysis, research, citation, and oral argument, much less cover remedial writing skills.<sup>92</sup>

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85. Telfeyan, *supra* note 81, at 25; *see also* Amy Vorenberg & Margaret Sova McCabe, *Practice Writing: Responding to the Needs of the Bench and Bar in First-Year Writing Programs*, 2 PHOENIX L. REV. 1, 27 (2009) (“Few professors want to teach mechanics and grammar.”).

86. Diane Larsen-Freeman, *Grammar and Its Teaching: Challenging the Myths*, ERIC DIGEST, at 3 (1997), available at <https://eric.ed.gov/?id=ED406829> [<https://perma.cc/928G-6GJT>].

87. *Id.* at 4.

88. *Id.* at 3, 5.

89. THE BLUEBOOK, A UNIFORM SYSTEM OF CITATION (Colum. L. Rev. Ass’n et al. eds., 20th ed. 2015).

90. COLEEN M. BARGER, ALWD GUIDE TO LEGAL CITATION (6th ed. 2017).

91. *See, e.g.*, Telfeyan, *supra* note 81, at 26; Crocker, *supra* note 56, at 22.

92. *See* Vorenberg & McCabe, *supra* note 85, at 28 (noting that “it is often hard to fit grammar and mechanics into an already content-abundant syllabus”); Oseid, *supra* note 21, at 110 (“In the typical Legal Writing class, a professor will teach a wide variety of topics including the United States court system, case briefing, effective case reading, issue spotting, use of analogies and

However, in recent years, law schools nationwide have begun retooling their curricula, including adding credits to the legal writing program. According to the ABA's 2002-2010 survey of law school curricula, schools are placing "greater emphasis on various kinds of writing across the curriculum."<sup>93</sup> Additionally, the ABA survey revealed that first-year "Legal Research and Writing continues to grow in stature as law schools increased the number of units and expanded course coverage to include skills instruction beyond traditional advocacy."<sup>94</sup> In terms of upper-division course offerings, legal writing courses experienced the largest growth of any subject area.<sup>95</sup>

Similarly, the 2015 Report of the Annual Legal Writing Survey reported that "[t]he average number of credits in the required program (spanning all three years and not just the first year) increased from 5.71 in the 2013-2014 academic year to 5.93 in the 2014-2015 academic year, capping off a steady increase in the average number of credits in each year starting with the 2010-2011 academic year."<sup>96</sup> To address incoming students' declining skills, some schools already have added additional legal writing requirements, such as increasing the number of required writing credits in the upper years, stretching the first-year legal writing program to three semesters instead of two, or increasing the number of writing credits required during the first year.<sup>97</sup>

Notably, as more students enter law school with decreasing skills, it will take more time to teach them what already exists in the curriculum: "If students arrive at law school with less developed writing skills than they had in the past, teaching them legal writing will necessarily require more time and effort. By definition, this will reduce the amount of time available to train those students in other skills."<sup>98</sup> Thus, it is likely that law schools will need to address this

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distinctions, case synthesis, rule analysis, rule application, making legal arguments, outlining techniques, large-scale and small-scale organization, writing style, editing, rewriting, basic formats for legal memoranda and briefs, legal citation, persuasive writing, oral advocacy, client counseling, and client interviewing.").

93. AM. BAR ASS'N, A SURVEY OF LAW SCHOOL CURRICULA: 2002-2010, 14 (2012), [https://www.americanbar.org/content/dam/aba/publications/misc/legal\\_education/2012\\_survey\\_of\\_law\\_school\\_curricula\\_2002\\_2010\\_executive\\_summary.authcheckdam.pdf](https://www.americanbar.org/content/dam/aba/publications/misc/legal_education/2012_survey_of_law_school_curricula_2002_2010_executive_summary.authcheckdam.pdf) [<https://perma.cc/WSC4-BHSQ>].

94. *Id.* at 15.

95. *Id.* at 16.

96. ASS'N OF LEGAL WRITING DIRS. & LEGAL WRITING INST., REPORT OF THE ANNUAL LEGAL WRITING SURVEY ix-x (2015), <http://www.alwd.org/wp-content/uploads/2017/03/2015-survey.pdf> [<https://perma.cc/A7YX-33PM>].

97. *See, e.g.*, LINDA H. EDWARDS, THE DOCTRINE-SKILLS DIVIDE: LEGAL EDUCATION'S SELF-INFLICTED WOUND 333 (2017).

98. Silecchia, *supra* note 25, at 270-71 (footnotes omitted).

problem by increasing the amount of required writing instruction in the curriculum, and many already are tinkering with their legal writing programs.<sup>99</sup>

### C. *Resistance from Law Students*

In addition to faculty perceptions of teaching writing mechanics, law students' perceptions of both their own abilities and of writing mechanics instruction generally present challenges to teaching this material. Students may not know they are deficient in writing basics, for instance, and may resist mechanics instruction because it is inconsistent with their previous educational models. Law students also construct a conscious or unconscious understanding of the hierarchy of law school classes based on a number of factors.

First, law students have difficulty identifying their own writing deficiencies and may, in fact, be "their own worst enemies."<sup>100</sup> For example, in one study, "[w]hen asked about their perception of their writing abilities when they entered law school, most had been confident because they were accustomed to little or no negative feedback in college."<sup>101</sup> However, "[t]he students' confidence in their writing abilities was not reflected in their first-semester performance."<sup>102</sup> These "'illusions of competence' in their reading, writing, and study habits" lead students to rely on ineffective learning strategies.<sup>103</sup> Compounding this lack of self-awareness is a profound misunderstanding of what "good writing" entails: Some students believe they can write well and communicate effectively even if they lack basic grammar and punctuation skills.<sup>104</sup>

Second, many incoming law students have grown up in the "grammar wars" era and, after being educated under a regime that in some cases omitted grammar instruction altogether, may have internalized the idea that grammar is not a useful or legitimate subject.<sup>105</sup> Various studies of grammar instruction have concluded that teaching grammar as an independent subject—divorced from any

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99. See, e.g., Joseph Kimble, *Notes Toward Better Legal Writing*, 5 SCRIBES J. LEGAL WRITING 148, 149-50 (1995).

100. Alaka, *supra* note 9, at 1-2, 38.

101. *Id.* at 21; see also Crocker, *supra* note 56, at 20 ("It was interesting and somewhat worrying to note that for some of the first-year students this was the first time during their educational careers that someone had paid such detailed individual attention to their work.").

102. Alaka, *supra* note 9, at 23.

103. Cooper, *supra* note 15, at 553, 556; see also Niedwiecki, *supra* note 62, at 160 (noting that research shows "that most students come to law school overstating their abilities").

104. Alaka, *supra* note 9, at 36-37, 57.

105. *Id.* at 24-25 ("Many students enter law school today without much formal instruction on technical writing skills. Some of these students have been educated during an era marked by pedagogical debate over whether grammar, spelling, and punctuation should be taught as separate subjects or solely within the context of reading and writing. Teachers of English and the language arts have been engaged in the 'grammar wars' and 'punctuation wars' since the early 1980s and the controversy continues to rage. As a result, some of today's students may well have had little formal education in punctuation, grammar, or certain style considerations.") (footnote omitted).



context—does not enhance learning,<sup>106</sup> leaving teachers confused about how best to teach the topic. Some students have never received general writing instruction at all, because “although both high school and college classes may include writing papers as part of their teaching and assessment methods, they may not include much instruction on writing itself—what’s correct, what’s effective, how to make yourself clear, or how to convince someone you’re right.”<sup>107</sup> Thus, some students “might have never actually received instruction on how to write,” even though it is generally assumed that incoming law students do, in fact, possess basic writing skills.<sup>108</sup> This lack of prior instruction presents difficulties for faculty, who are attempting to build on students’ previous education and impress upon students the importance of writing in the law. To the extent that law students struggled with mechanics in the past, they may be reluctant to revisit the subject.<sup>109</sup>

Third, law students observe the hierarchy of subjects and faculty at their law schools—whether consciously or not—and draw conclusions from that hierarchy.<sup>110</sup> As noted in one study, when the credit structure and grading of a class is different from, and lesser than, other classes—for example, a two-credit legal writing course that is graded pass/fail or features pass/fail assignments—students receive “a negative message about the value of these assessments and the skills required.”<sup>111</sup> In other words, “[t]he hidden curriculum, as interpreted by these students, was that the skills subjects did not merit their best work.”<sup>112</sup> At U.S. law schools, this “hidden curriculum” issue also arises from status, title, age, race, and gender disparities among law faculty.<sup>113</sup> Students notice the

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106. See, e.g., Monica Koster et al., *Teaching Children to Write: A Meta-Analysis of Writing Intervention Research*, J. OF WRITING RES., 2015, at 313-14, 318 (concluding in a research meta-analysis that grammar instruction yielded a negative effect on student learning, possibly due to students’ difficulties transferring knowledge to writing).

107. Joyce Rosenberg, *Who Taught You to Write? Reflections on a Writing Education in Kansas*, J. Kan. B. Ass’n, 12 (Mar. 2015); Michele Goodwin, *Law Professors See the Damage Done by ‘No Child Left Behind,’* CHRON. HIGHER ED., Mar. 12, 2013, <https://www.chronicle.com/blogs/conversation/2013/03/12/law-professors-see-the-damage-done-by-no-child-left-behind/> [<https://perma.cc/WA45-26CU>].

108. Rosenberg, *supra* note 107, at 12.

109. See Vorenberg & McCabe, *supra* note 85, at 27 (noting that “[few] students want to revisit this often-weak skill from their educational past”).

110. See EDWARDS, *supra* note 97, at 173 (“A law school’s curriculum speaks powerfully about its hierarchy of values, a hierarchy that is then carefully taught to students and to new faculty and continuously reinforced in the minds of existing faculty.”).

111. Molly Townes O’Brien & John Littrich, *Using Assessment Practice to Evaluate the Legal Skills Curriculum*, 5 J. U. TEACHING & LEARNING PRACTICE 62, 72 (2008) (assessing skills instruction in an Australian Bachelor of Laws program).

112. *Id.*

113. See Melissa Marlow-Shafer, *Student Evaluation of Teacher Performance & the “Legal Writing Pathology:” Diagnosis Confirmed*, 5 N.Y. CITY L. REV. 115, 118-19 & nn. 12-13, 19 (2002).

differences between the faculty who teach legal writing and those who teach non-writing courses, and they frequently react to these differences by evaluating legal writing professors more harshly than non-writing professors<sup>114</sup> and by having different expectations for their (overwhelmingly female) legal writing professors.<sup>115</sup> As a result of these biases, students may vary the level of work and effort they put into a class based on how important or legitimate they think that class is.<sup>116</sup> Adding instruction on writing mechanics may compound some of these problems by further differentiating writing classes and those who teach them from students' other classes.

### III. HOW MIND, BRAIN, AND EDUCATION SCIENCE CAN IMPROVE THE TEACHING OF WRITING MECHANICS IN LAW SCHOOL

While MBE science has not addressed specifically how to teach writing mechanics in law school, it has studied many aspects of teaching and learning that are applicable to this subject. As a result, the implications of MBE research for legal education are vast. Armed with a multidisciplinary understanding of how to teach and how to learn—based on empirical evidence collected over decades—law professors can revolutionize how law is taught, how well students learn, and who can succeed in law school.

#### A. *History of MBE Science*

In the late 1990s and early 2000s, “a paradigm shift in thinking about teaching and learning” led to the birth of the “new academic discipline” of MBE science.<sup>117</sup> The field is based on the theory that the important findings from one area of research “will multiply if they can somehow be confirmed via an interdisciplinary effort.”<sup>118</sup> One author notes that this field comes “full circle” to Grecian times, when global and “[i]nterdisciplinary thought” was valued, and specialization was not yet the trend it would later become.<sup>119</sup>

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114. *Id.*; Anne Boring, Kellie Ottoboni & Philip B. Stark, *Student Evaluations of Teaching Are Not Only Unreliable, They Are Significantly Biased Against Female Instructors*, Feb. 4, 2016, <http://blogs.lse.ac.uk/impactofsocialsciences/2016/02/04/student-evaluations-of-teaching-gender-bias/> [<https://perma.cc/L99G-ZWH8>].

115. Amani El-Alayli, Ashley A. Hansen-Brown & Michelle Ceynar, *Dancing Backwards in High Heels: Female Professors Experience More Work Demands and Special Favor Requests, Particularly from Academically Entitled Students*, SEX ROLES, Jan. 3, 2018, <https://link.springer.com/content/pdf/10.1007%2Fs11199-017-0872-6.pdf> [<https://perma.cc/2CNM-Y69C>].

116. Crocker, *supra* note 56, at 19 (noting that students were motivated “to engage with the materials and to perform diligently in the assignments” when the law school’s writing program “was fully integrated” with other first-year courses and was a graded course).

117. MBE SCIENCE, *supra* note 1, at 31.

118. *Id.*

119. *Id.*

MBE is “the use of empirical scientific research to confirm best practices in pedagogy.”<sup>120</sup> This new discipline combines the fields of neuroscience, psychology, and education into a multidisciplinary study of “the way people learn and how we should teach as a consequence.”<sup>121</sup> It has started to create “a new and innovative way to consider old problems in education and offers evidence-based solutions for the classroom.”<sup>122</sup> It is unique from its constituent disciplines because MBE science places “equal emphasis in research on how humans learn . . . as well as how we teach.”<sup>123</sup>

From preschool to graduate school, teachers historically have put little time into “getting to know the primary organ of their life’s purpose: the brain.”<sup>124</sup> By finally addressing this lack, MBE is helping “to address learning problems by identifying better teaching techniques.”<sup>125</sup> Thus, this field offers to law professors and others the tools to recognize and address students’ learning difficulties through techniques based on empirical evidence. By integrating research from neuroscience, psychology, and education, MBE science is able to “create more powerful teaching tools” superior to any tool coming from just one discipline.<sup>126</sup>

The field of MBE science has experienced significant growth and interest in recent years.<sup>127</sup> This area continues to evolve, and because of its recency, gaps exist in our understanding of the various scientific disciplines and how best to integrate them into pedagogy.<sup>128</sup>

Furthermore, MBE is not without its detractors and critiques. Among other criticisms, “hybrid disciplines” such as MBE entail compromises and adjustments that some say dilute the individual disciplines.<sup>129</sup> The cross-cultural nature of MBE also presents potential conflicts in terms of defining the field’s shared norms and values, and the field’s “greatest weakness”—also its major strength—is the integration of research and “values that are usually complementary, but which can also sometimes be contradictory.”<sup>130</sup> Thus, in contrast to individual disciplines, MBE presents more opportunities “for finding complex solutions to complex problems” while at the same time it faces unique “labor pains” as it grows from three separate fields into one.<sup>131</sup>

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120. *Id.* at 14.

121. *Id.* at 4-5.

122. MBE SCIENCE, *supra* note 1, at 4.

123. *Id.* at 17.

124. *Id.*

125. *Id.*

126. *Id.* at 21.

127. TRACEY TOKUHAMA-ESPINOSA, MAKING CLASSROOMS BETTER xxiii (2014) (hereinafter MAKING CLASSROOMS BETTER).

128. MAKING CLASSROOMS BETTER, *supra* note 127, at xxiv-xxv.

129. MBE SCIENCE, *supra* note 1, at 8.

130. *Id.* at 8-9.

131. *Id.* at 9, 12.

### B. *How the Human Brain Learns*

From birth, the human brain is primed to learn: “[T]he brain has evolved to educate and to be educated, often instinctively and effortlessly.”<sup>132</sup> Thus, “understanding the brain mechanisms that underlie learning and teaching could transform educational strategies and enable us to design educational programmes that optimize learning for people of all ages and of all needs.”<sup>133</sup>

MBE science reflects five “well-established concepts” about the human brain.<sup>134</sup> These concepts have existed for decades, “proven without a doubt in neuroscience, psychology, and educational settings.”<sup>135</sup> Thus, their “use in planning, curriculum design, classroom methodology design, and basic pedagogy” presents a “best practice” for education.<sup>136</sup>

These “well-established concepts” are the following: (1) human brains are as unique as faces; (2) all brains are not equal because context and ability influence learning; (3) experience changes the brain; (4) the brain is highly plastic; and (5) the brain connects new information to old information.<sup>137</sup> These five concepts are combined here into three lessons applicable to legal writing.<sup>138</sup>

Although they may not know it, law professors are well suited to use MBE science to inform their pedagogy because the overarching goals of legal education are consistent with the goals of MBE researchers. For example, one of the goals of the application of MBE science to the classroom is to create minds “able to synthesize and judge the quality of information that currently exists in the world,” particularly in light of the vast amount of information confronting students.<sup>139</sup> Because this process of synthesis is complex and “requires the ability to take in a variety of information sources, understand the main concepts within each, and then judge their applicability to the topic at hand,” teachers striving to pass this skill onto their students must be excellent critical thinkers themselves.<sup>140</sup> Critical thinking is a tenet of legal education and an essential component of both legal writing and law practice,<sup>141</sup> while legal application is the crux of legal writing and analysis. Thus, the goals of MBE science are well aligned with the goals of legal education.

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132. Sarah-Jayne Blakemore & Uta Frith, *The Learning Brain: Lessons for Education: A Précis*, 8 DEVELOPMENTAL SCI. 459 (2005), <http://onlinelibrary.wiley.com/wo11/doi/10.1111/j.1467-7687.2005.00434.x/full> [<https://perma.cc/K3GX-MAV9>].

133. *Id.*

134. MBE SCIENCE, *supra* note 1, at 32-35.

135. *Id.* at 35.

136. *Id.*

137. *Id.* at 32-35.

138. *See infra* text accompanying notes 152-212.

139. MBE SCIENCE, *supra* note 1, at 11.

140. *Id.* at 12.

141. *See* Brett A. Brosseit, *Charting the Course: An Empirically Based Theory of the Development of Critical Thinking in Law Students*, 26 ALB. L.J. SCI. & TECH. 143, 148 (2016).

The application of MBE science in the classroom can benefit both teachers and students. Law professors benefit because the use of empirically supported techniques to improve pedagogy will increase their efficacy.<sup>142</sup> Because “fundamental skills . . . are extremely complex and require a variety of neural pathways and mental systems to work correctly,” professors educated in MBE science can better understand the roots of a particular student’s struggle and, thus, “make teaching methods and diagnoses more precise.”<sup>143</sup> With a firm grounding in MBE, professors “have better diagnostic tools to help them more accurately understand their students’ strengths and weaknesses” and can avoid “latching onto unsubstantiated claims and ‘neuromyths.’”<sup>144</sup> Moreover, students benefit because ultimately they will be more successful.<sup>145</sup>

Furthermore, as legal writing professors venture more deeply into teaching fundamental writing skills and writing mechanics, they will need guidance on how best to teach these topics. Although earlier articles have applied some of the MBE research to legal education generally,<sup>146</sup> none have examined the application to the legal writing course or to writing mechanics taught in legal writing courses. This is important because the legal writing course differs from a traditional law school course in several significant ways, so the scientific research applies in different ways and can inform the teaching of both legal writing and writing mechanics in ways that are unique from legal education generally.

For example, legal writing classes tend to be smaller than traditional law courses, particularly those classes taught as large lectures. Thus, opportunities for small-group work and individualized instruction<sup>147</sup> exist in legal writing classes in a way that may not in large lecture-based<sup>148</sup> classes. Additionally, legal writing courses inherently incorporate problem-solving and practical application of skills and knowledge in writing assignments.<sup>149</sup> In contrast to the traditional first-year class where students take only one final exam at the end of

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142. MBE SCIENCE, *supra* note 1, at 13.

143. *Id.* at 14; MAKING CLASSROOMS BETTER, *supra* note 127, at 5 (observing that a teacher’s consideration of “the potential physiological, mental, and pedagogical roots” of a student’s problem reflected an MBE-based approach).

144. MBE SCIENCE, *supra* note 1, at 14.

145. *Id.* at 13.

146. *See, e.g.*, Binford, *supra* note 3.

147. *See, e.g.*, Maureen F. Fitzgerald, *What’s Wrong with Legal Research and Writing? Problems and Solutions*, 88 L. LIBR. J. 247, 250 (1996) (discussing classroom approaches in legal writing courses).

148. *See* Leilani A. Arthurs & Bailey Zo Kreager, *An Integrative Review of In-Class Activities that Enable Active Learning in College Science Classroom Settings*, 39 INT’L. J. SCI. EDUC. 2073, 2086 (2017) (“Lecture alone is largely incongruent with what we know about how people learn and contemporary college science education goals.”), <https://www.tandfonline.com/doi/full/10.1080/09500693.2017.1363925> [<https://perma.cc/U8A2-5ZGQ>].

149. *See* Fitzgerald, *supra* note 147, at 262-63, 265.

the term,<sup>150</sup> legal writing courses typically involve multiple assessments in each semester.<sup>151</sup> Thus, legal writing classes already incorporate many MBE strategies, but there has been no analysis of which techniques can best enhance the legal writing course. This article endeavors to fill this gap.

1. Human brains are unique and learn in different ways.

First, human brains are “unique and uniquely organized.”<sup>152</sup> Each “student[] learn[s] in slightly different ways,” yet there are “clear patterns of brain development shared by all people.”<sup>153</sup> These “clear developmental stages . . . set parameters for learning[,]” rather than, as has been suggested, provide “an ‘excuse’ for the inability of teachers to reach all learners.”<sup>154</sup> The uniqueness of each brain also means that every brain is not equal to others. “[B]ecause context and ability influence learning,” students enter each classroom with different abilities and skills.<sup>155</sup> “Context includes the learning environment, motivation for the topic of new learning, and prior knowledge.”<sup>156</sup>

MBE research tells us that teachers must personalize the classroom experience to meet the needs of their students.<sup>157</sup> Because students bring individual “levels of intelligence and cognitive preferences, combined with . . . varying levels of knowledge and skills” to the classroom, they benefit from instruction that is based on individual diagnosis and a personalized learning experience.<sup>158</sup> Notably, this does not mean that students need one-on-one instruction,<sup>159</sup> which would be impossible in most classrooms. Instead, teachers can use various methods to engage in differentiated instruction that permits students to learn at varying paces.<sup>160</sup>

One way to personalize education is through the use of technology. “Some teachers think they are successful and need not change their methodologies despite the lack of innovation in their practice for decades,” but educators savvy to MBE research understand that capturing students’ attention is different from what it was in the past, thanks to technological innovations.<sup>161</sup> The “flipped” classroom is one example of an innovative technique that addresses students’

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150. EDWARDS, *supra* note 97, at 170-71.

151. *See* Fitzgerald, *supra* note 147, at 250.

152. MBE SCIENCE, *supra* note 1, at 32.

153. *Id.*

154. *Id.*

155. *Id.*

156. *Id.*

157. MBE SCIENCE, *supra* note 1, at 27.

158. *Id.*

159. *Id.*

160. MAKING CLASSROOMS BETTER, *supra* note 127, at 8-9.

161. *Id.* at 8.

needs and incorporates MBE science.<sup>162</sup> First, flipping the classroom—by assigning videos or other instructional content as homework and asking students to come to class with questions or prepared to apply what they have learned—permits teachers to use “differentiated instruction” where students learn at their own pace, so class time can be used for mastery learning rather than lecture.<sup>163</sup> Second, flipping effectively integrates technology in a way that facilitates learning by permitting students to become more autonomous in their learning.<sup>164</sup> They can pause and re-watch a video, for example, unlike a classroom lecture.<sup>165</sup> Finally, flipping the classroom improves classroom efficiency by allowing struggling students to spend more time learning and reviewing content at home, rather than professors having to use valuable in-class time to respond to the specific needs of individual students.<sup>166</sup>

Another way to use technology to enhance individualized instructions is through the use of audio-recorded critiques.<sup>167</sup> While attending a live, in-person conference, the student or professor records the professor’s critique, which enables the student to listen to the feedback repeatedly after the conference.<sup>168</sup> In this way, the technology helps professors offer personalized, individual learning while permitting students to use the technology to enhance understanding outside of the classroom.

Furthermore, because the different components of writing mechanics travel through different neural pathways—for example, spelling travels through one pathway, grammar through another—students may struggle with some components and excel at others.<sup>169</sup> As a result, teachers need to identify ways to differentiate methodology to address students’ abilities and also differentiate assessments and grading in order to more accurately reflect student performance.<sup>170</sup> For example, grading “clarity” on a memorandum without delineating the various pieces that make a document clear or unclear might result in a low score for a student who struggles with punctuation. But if the “clarity” grade was broken down into punctuation, grammar, spelling, and syntax, then that same student might score low on punctuation, but high on the other components of clarity, resulting in a higher grade overall. Thus, differentiation should extend to assessments.

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162. *Id.* at 8-9.

163. *Id.* at 8.

164. *Id.* at 9.

165. MAKING CLASSROOMS BETTER, *supra* note 127, at 9.

166. *Id.*

167. See Anna Hemingway & Amanda Smith, *Best Practices in Legal Education: How Live Critiquing and Cooperative Work Lead to Happy Students and Happy Professors*, 29 LEGAL WRITING INST. 7, 7-8 (2016).

168. *Id.* at 8.

169. MBE SCIENCE, *supra* note 1, at 25.

170. *Id.*

Yet another way to differentiate methodology is through the use of pre-assessments or early assessments. Based on the results of assessments, professors can identify student needs and challenges, using that information to tailor exercises, workshops, or other specific interventions to address individual problem areas. The use of teaching assistants to facilitate differentiated instruction during class time is another option; professors and teaching assistants can work together to offer groups of students focused instruction. For example, while the teaching assistant is administering a research exercise to one group of students, the professor can lead another group in an exercise focused on addressing specific mechanics issues. Another group of students could work on self-directed exercises, such as speed-writing, peer review, or reciprocal teaching.

By differentiating teaching methodology and assessment, professors can tailor their teaching and grading to recognize and address students' individual strengths and weaknesses, permitting students to learn and grow at a pace consistent with the unique brains, skills, and experiences they bring to each classroom.

## 2. Human brains are plastic and changeable.

Human beings wake up every morning with a new brain.<sup>171</sup> The brain is very plastic and continues to develop throughout life; as a result, “[p]eople can, and do, learn throughout their lives.”<sup>172</sup> Experiences change the brain constantly, and these changes can become permanent.<sup>173</sup> Due to experiences, or lack thereof, some areas of the brain will be strengthened and some will atrophy.<sup>174</sup>

Although the neuromyth that the first three years of life are a “critical period” for learning has now been debunked, researchers continue to debate whether the brain is primed for certain types of learning at certain critical, or sensitive, periods in life.<sup>175</sup> For example, the “critical period hypothesis” posits that “[t]here is a critical period for acquiring the grammar of one’s native language that closes around puberty.”<sup>176</sup> This “fiercely contested” hypothesis

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171. See Nicola Davis, *Humans Produce New Brain Cells Throughout Their Lives, Say Researchers*, ATLANTIC, Apr. 5, 2018, <https://www.theguardian.com/science/2018/apr/05/humans-produce-new-brain-cells-throughout-their-lives-say-researchers> [https://perma.cc/KJ9C-66G6] (last visited Dec. 21, 2018); MAKING CLASSROOMS BETTER, *supra* note 127, at 26-27.

172. MBE SCIENCE, *supra* note 1, at 33; JOHN T. BRUER, THE MYTH OF THE FIRST THREE YEARS: A NEW UNDERSTANDING OF EARLY BRAIN DEVELOPMENT & LIFELONG LEARNING 155 (1999) (“It is evident that we have a lifelong ability to learn new skills . . .”).

173. MBE SCIENCE, *supra* note 1, at 33.

174. *Id.*

175. See generally Bruer, *supra* note 172, at 101-43.

176. Bruer, *supra* note 172, at 133; see generally Andy Schouten, *The Critical Period Hypothesis: Support, Challenge, and Reconceptualization*, Teachers College, Columbia University, Working Papers in TESOL & Applied Linguistics, 2009, at 2-8.



continues to be the subject of debate among linguists, psychologists, and neuroscientists.<sup>177</sup> Similarly, some researchers have found that the period for most easily learning a second language also closes at puberty, but this theory “is not universally accepted” and has been challenged in recent years.<sup>178</sup>

What scientists do agree on is the fact that neurogenesis, the generation of new brain cells, continues to occur throughout the entire human life span.<sup>179</sup> In fact, not only can older people learn new things—such as a new language—but it is beneficial to the brain to do so because mental stimulation suppresses the deterioration of mental skills.<sup>180</sup> Providing the brain with new challenges can increase the size of the hippocampus, which is critical to the ability to learn and remember.<sup>181</sup>

The brain’s plasticity can work in both positive and negative ways. Because of the Hebbian synapse rule (“[c]ells that fire together wire together”), events that occur together can create neuronal firings linking the events.<sup>182</sup> So, for example, if a child has a positive experience with a Spanish teacher, this can create a love for the language. If a student struggled with grammar or writing in the past, this may have created neuronal firings linking grammar or writing with feelings of anxiety, fear, or panic. This negativity can show up in the legal writing classroom. Because the brain is plastic and continues to be so forever, it is possible to replace those older pathways with newer ones, but this becomes more difficult with age due to hormonal changes and lack of use.<sup>183</sup>

Finally, because the brain changes frequently, law students’ experiences in the classroom can change their brain structure.<sup>184</sup> By being motivated and passionate, teachers influence students to feel the same way.<sup>185</sup> By creating a

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177. See, e.g., MARTINA MARIA MCCARTHY, A DISCUSSION OF THE EVIDENCE FOR AND AGAINST THE CRITICAL PERIOD HYPOTHESIS IN FIRST LANGUAGE ACQUISITION (2013), [http://www.academia.edu/7116636/Evidence\\_for\\_and\\_against\\_the\\_Critical\\_Period\\_Hypothesis\\_in\\_First\\_Language\\_Acquisition](http://www.academia.edu/7116636/Evidence_for_and_against_the_Critical_Period_Hypothesis_in_First_Language_Acquisition) [https://perma.cc/FS75-R928] (reviewing the research on critical periods for learning); see also Schouten, *supra* note 176, at 2-8.

178. Bruer, *supra* note 172, at 133-34; James Emil Flege et al., *Age Constraints on Second-Language Acquisition*, J. MEMORY & LANGUAGE 78 (1999).

179. See generally Davis, *supra* note 171.

180. See, e.g., Harvard Health Publ’g, *12 Ways to Keep Your Brain Young* (Jan. 16, 2018), <https://www.health.harvard.edu/mind-and-mood/12-ways-to-keep-your-brain-young> [https://perma.cc/6VPQ-LZRZ] (last visited Dec. 21, 2018).

181. Dr. Majid Fotuhi, *Can You Grow Your Hippocampus? Yes. Here’s How, and Why It Matters* (Nov. 4, 2015), <https://sharpbrains.com/blog/2015/11/04/can-you-grow-your-hippocampus-yes-heres-how-and-why-it-matters/> [https://perma.cc/7FRN-7NAS] (last visited Dec. 21, 2018).

182. Christian Keysers & Valeria Gazzola, *Hebbian Learning and Predictive Mirror Neurons for Actions, Sensations and Emotions*, PHIL. TRANSACTIONS ROYAL SOC’Y, 2014, at 2; MAKING CLASSROOMS BETTER, *supra* note 127, at 35.

183. MAKING CLASSROOMS BETTER, *supra* note 127, at 27-28, 34-35.

184. *Id.* at 22.

185. *Id.* at 35.

classroom that is collaborative, positive, and exciting, professors influence students to feel excited and positive about the subject. On the other hand, a professor who uses fear, humiliation, or other negative strategies can lead students to associate anxiety with that course and the subject matter. Thus, a professor who groans about having to teach grammar can impact her or his students to feel negatively about the topic.

The concept of plasticity offers potential benefits in the legal writing classroom: Teacher enthusiasm can encourage students to embrace fundamental writing skills, and students of all ages continue to grow new brain cells and learn new information throughout their lives. On the other hand, brain plasticity can mean that students bring previous negative experiences to the legal writing classroom. Armed with awareness of these issues, professors have the potential to introduce students to these critical subjects in a thoughtful way leading to greater student success.

### 3. Learning is contextual and builds upon existing knowledge.

The brain facilitates learning by relating new information to information already known.<sup>186</sup> To do so, the brain compares “recognizable patterns (in numbers, behaviors, landscapes, and so on) with things that stand out as different (novelty) . . . .”<sup>187</sup> This detection of novelty—“things that are different from what is expected”—enables learning, as well as protects humans from possible threats.<sup>188</sup> Thus, it is critical for teachers to “anchor[] . . . information to what students already know,” rather than teach new topics in a “conceptual vacuum.”<sup>189</sup> This is relevant to legal education, where the conventional model often separates legal classes into “silos” with little attention paid to the intersections and overlap of different legal topics.<sup>190</sup> By integrating subject matter, law schools can capitalize on what students already know, from pre-law school experiences and from earlier classes in law school.

There are good reasons to integrate writing mechanics into a holistic writing course that covers other, related topics. Ample research supports holistic, or environmental, learning of many subjects.<sup>191</sup> In the context of writing mechanics, colleges “that have shifted from traditional ‘stand-alone’ grammar to teaching grammar through writing offer concrete proof that such approaches

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186. MBE SCIENCE, *supra* note 1, at 34.

187. MAKING CLASSROOMS BETTER, *supra* note 127, at 29.

188. *Id.*

189. MBE SCIENCE, *supra* note 1, at 34.

190. *See, e.g.*, Steven I. Friedland, *Adaptive Strategies for the Future of Legal Education*, 61 LOY. L. REV. 211, 216 (2015) (observing that “[a] system of silos, meaning separate, walled-off components, has emerged in legal education”).

191. *See, e.g.*, George Hillocks, Jr., *What Works in Teaching Composition: A Meta-Analysis of Experimental Treatment Studies*, 93 AM. J. EDUC. 133 (1984) (meta-analysis finding that “environmental” surpassed lecture and teacher-led discussions in terms of student learning).

work.”<sup>192</sup> Additionally, integrating the teaching of mechanics into the legal writing course, instead of outsourcing the content to an English teacher or a writing coach, is crucial for student buy-in.<sup>193</sup> As discussed *infra*,<sup>194</sup> law students are skeptical when a class is different from their other classes, and this skepticism may lead to decreased effort and motivation.

Numerous studies have found that isolated grammar instruction does not help students and can even hurt.<sup>195</sup> For example, the faculty at the Howard College Campus of the University of KwaZulu-Natal in South Africa initially tried to address law students’ poor writing skills through a program taught by an English instructor and focused solely on English grammar.<sup>196</sup> Among other criticisms, this “out-sourcing amounted to teaching English grammar skills out of context and then expecting students to have somehow gained insight into legal discourse.”<sup>197</sup> As a result of its deficiencies, the program was replaced by a different program that integrated grammar instruction into legal writing, taught by law faculty.<sup>198</sup> The faculty found “that the multi-faceted nature of legal writing, encompassing legal analysis and application, as well as logical sequencing and argument, could not be taught in a vacuum.”<sup>199</sup>

In a meta-analysis of research related to the teaching of English composition to more than 11,000 students, the most effective method of teaching was the “environmental” mode of instruction.<sup>200</sup> In this mode, the teacher employed “activities that result[ed] in high levels of student interaction concerning particular problems parallel to those they encounter in certain kinds of writing, such as [1] generating criteria and examples to develop extended definitions of concepts or [2] generating arguable assertions from appropriate data and predicting and countering opposing arguments.”<sup>201</sup> The environmental method prioritized “structured problem-solving activities, with clear objectives, planned to enable students to deal with similar problems in composing [their own work].”<sup>202</sup> In contrast, the meta-analysis revealed that the least effective mode examined, the “presentational” method of teaching, was also “the most common and widespread.”<sup>203</sup> In this method, “the instructor dominates all activity, with

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192. Michelle Navarre Cleary, *The Wrong Way to Teach Grammar*, ATLANTIC, Feb. 25, 2014, <https://www.theatlantic.com/education/archive/2014/02/the-wrong-way-to-teach-grammar/284014/> [<https://perma.cc/CF8S-HNJC>] (last visited Dec. 21, 2018).

193. See, e.g., Crocker, *supra* note 56, at 7.

194. See *infra* text accompanying notes 110-16.

195. See, e.g., Koster, *supra* note 106, at 318.

196. Crocker, *supra* note 56, at 4-8.

197. *Id.* at 7.

198. *Id.* at 4, 6, 9.

199. *Id.* at 7.

200. Hillocks, Jr., *supra* note 191, at 160.

201. *Id.*

202. *Id.*

203. *Id.* at 159.

students acting as the passive recipients of rules, advice, and examples of good writing.”<sup>204</sup>

When it comes to teaching grammar within the context of teaching English composition, the meta-analysis concluded that “[t]he study of traditional school grammar (i.e., the definition of parts of speech, the parsing of sentences, etc.) has no effect on raising the quality of student writing” and, in fact, can have “a deleterious effect on student writing,” particularly when students are exposed to “the systematic study of traditional school grammar . . . over lengthy periods of time in the name of teaching writing.”<sup>205</sup> Instead, “[t]eachers concerned with teaching standard usage and typographical conventions should teach them in the context of real writing problems.”<sup>206</sup>

As one author notes, “[t]he difference between what’s happening in class and what’s important in real life is sometimes a formula for ‘boredom.’”<sup>207</sup> Thus, getting student buy-in through real-life context and problem-solving is crucial to teaching all material, including writing mechanics. Legal writing professors can effectively provide a real-life context by using court opinions, ethics opinions, and personal stories from law practice to emphasize the importance of writing mechanics to practice. Visits from local attorneys who are willing to talk about the value of high-quality writing can help to increase student buy-in.

The proactive teaching of mechanics need not be—and should not be—rote memorization activities consisting of grammar exercises. Instead, faculty should embed mechanics into contextually rich legal writing exercises and assignments. For example, at the University of KwaZulu-Natal, the legal writing professors embedded fundamental writing instruction into a deep series of writing assignments involving a hypothetical student sexual-harassment case, the school’s sexual-harassment policy, and a statute.<sup>208</sup> “[S]tudents were not just being taught grammar or provided with legal knowledge in a decontextualised manner. This was a ‘real-world’ problem with a significant ethical dimension, which was legally complex, and which could realistically be encountered by students in the ‘real world.’”<sup>209</sup> Students encountered several levels of assignments and rewrites that increased in difficulty over the term, and they received detailed feedback at each level.<sup>210</sup>

Because cognitive development, including the acquisition of concepts and facts, is more likely to occur through problem-solving than through deliberate

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204. *Id.*

205. Hillocks, Jr., *supra* note 191, at 160.

206. *Id.*

207. MAKING CLASSROOMS BETTER, *supra* note 127, at 243.

208. Crocker, *supra* note 56, at 14.

209. *Id.*

210. *Id.* at 14-15. Among other subjects, the students were lectured on the effective use of feedback. *See id.* at 16.

study,<sup>211</sup> writing instructors should use problem-solving to teach mechanics. As set out in the MacCrate Report, problem-solving involves “1.1 Identifying and Diagnosing the Problem[;] 1.2 Generating Alternative Solutions and Strategies[;] 1.3 Developing a Plan of Action[;] 1.4 Implementing the Plan[; and] 1.5 Keeping the Planning Process Open to New Information and New Ideas.”<sup>212</sup> For example, rather than assign “passive voice exercises,” professors can provide students with text that is wordy and ask them to condense the text by reducing passive voice and eliminating unnecessary words. Alternatively, professors can assign students to edit text with the goal of increasing clarity, starting with assigning unclear sentences and then progressing to paragraphs and longer documents. Finally, a penultimate assignment or exercise would task students with writing their own clear sentences or paragraphs, free from passive voice.

#### IV. CONCLUSION

MBE research offers valuable insights into how the brain learns and how law professors should teach. First, because each student’s brain is unique and each student learns in different ways, legal writing professors should personalize the classroom to meet students’ needs through the use of technology, differentiated grading schemes, and frequent assessments. Second, the human brain’s plasticity means that professors and classroom experiences have a profound ability to impact students’ development, attitudes, and success. Finally, by integrating writing mechanics into broader writing and editing instruction, professors offer students both lessons on fundamental mechanics and a context for applying and understanding those lessons. Armed with more knowledge of how the brain works and how they should teach as a result, law professors implementing these strategies are poised to better serve their students and the legal system as a whole.

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211. Frankfurt Int’l School, *An Introduction to the Work of Stephen Krashen*, <http://esl.fis.edu/teachers/support/krashen.htm> [<https://perma.cc/P7G9-KPQ3>] (last visited Oct. 4, 2018).

212. Gary L. Blasi, *What Lawyers Know: Lawyering Expertise, Cognitive Science, and the Functions of Theory*, 45 J. LEGAL EDUC. 313, 328 (1995) (quoting AM. BAR ASS’N SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT—AN EDUCATIONAL CONTINUUM, REPORT OF THE TASK FORCE ON LAW SCHOOLS AND THE PROFESSION: NARROWING THE GAP 138 (1992)).