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# What You Don't Know (Can Hurt You): Using Exam Wrappers to Foster Self-Assessment Skills in Law Students

Sarah J. Schendel

*Suffolk University Law School*, [sschendel@suffolk.edu](mailto:sschendel@suffolk.edu)

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**What You Don't Know (Can Hurt You):  
Using Exam Wrappers to Foster Self-Assessment  
Skills in Law Students**

**Sarah J. Schendel<sup>1\*</sup>**

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## I. Introduction

We all fail. A missed deadline. An unsuccessful exam. A guilty verdict. An unhappy client. Knowing what went wrong, and why, is the groundwork for any change in future performance. The ability to reflect after an unsuccessful endeavor, assess our performance, accept responsibility, and make a plan to improve is at the heart of being an ethical and successful individual and professional.

However, psychologists have found that most humans do a lousy job of assessing our own abilities. Coined in 1999 by psychologists David Dunning and Justin Kruger, the eponymous Dunning-Kruger Effect is often explained as a cognitive bias whereby people who are incompetent at something are unable to recognize their own incompetence and, as a result, feel confident that they actually are competent.<sup>2</sup> What many fail to note is that Dunning and Kruger found that this “miscalibration” is not limited to the “less skilled”; people of high ability are also unable to recognize their own skill level, and incorrectly assume that tasks that are easy for them are also easy for other people.<sup>3</sup> In short, accurate self-assessment is not innate, but rather a learned skill.

Self-assessment<sup>4</sup> is “the involvement of students in: identifying standards and/or criteria to apply to their work and making judgments about the extent to which they have met these criteria and standards.”<sup>5</sup> That many law students are unable to accurately assess their skill level and whether they have satisfied course requirements likely does not surprise those who work in legal education. Many of us have had students on

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2. Justin Kruger & David Dunning, *Unskilled and Unaware of It: How Difficulties in Recognizing One's own Incompetence Lead to Inflated Self-Assessments*, 77 J. PERSONALITY & SOC. PSYCHOL. 1121, 1121 (1999).

3. *Id.* at 1126.

4. A note on terminology: When I began my research, I varied between using the terms self-evaluation, self-reflection, and self-assessment. I eventually chose self-assessment because I believe that these ideas and activities belong within broader discussions of assessment within legal education.

5. Betty McDonald, *Self Assessment for Understanding*, 188 J. EDUC. 25, 25 (2007) (quoting DAVID BOUD, IMPLEMENTING STUDENT SELF ASSESSMENT 5 (Vic Beasley ed., 2d ed. 1991)).

the brink of failing who acknowledge they perhaps “could do better,” but do not seem to understand the severity of their situation or the changes required for success. We may also have students who self-diagnose as being “bad at multiple choice,” but with a bit of prodding we find that their weakness in the underlying content may be the real culprit. This is not to disparage these students’ explanations, but to acknowledge that these flawed attributions for poor performance may be common for a reason—the ability to accurately determine our strengths and weaknesses is a skill that must be cultivated.

“Attribution” means simply an explanation for why students performed well or poorly. Frustrations around attribution exist on all sides of the assessment process. On one hand, students may receive a grade yet understand little about why they received it or how to improve.<sup>6</sup> On the other hand, many professors are familiar with the experience of providing detailed written feedback or opportunities for discussion post-exam, only to have students look at their grade and toss the paper away.<sup>7</sup>

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6. Roberto L. Corrada, *Formative Assessment in Doctrinal Classes: Rethinking Grade Appeals*, 63 J. LEGAL EDUC. 317, 317-18 (2013). Corrada recounts his experience as a law student:

I remember reviewing most of my exams and seeing cryptic marks that had meaning only to the professor. In brief meetings, I remember smiling professors telling me I had done well and maybe offering general remarks about strengths and weaknesses. I was struck by the uniformity of the process. The law school seemed to have no policy on exam review but virtually every professor handled my requests in the same way, especially with respect to feedback. On the whole, the process seemed to be aimed at discouraging student interactions with professors over exams. Consequently, I never met with professors about exams after my first year of law school. As a result, I am quite certain that my last law school exam answer looked a lot like my first law school exam answer in substance, style, and structure.

*Id.*

7. P. Gizem Gezer-Templeton et al., *Use of Exam Wrappers to Enhance Students’ Metacognitive Skills in a Large Introductory Food Science and Human Nutrition Course*, 16 J. FOOD SCI. EDUC. 28, 29 (2017) (“[One professor] has noticed, with disappointment, that after returning the exams back to her students’ [sic], some students simply look at their grade, promptly place the exam into their binders (or worse yet the trash), then move on to the next course topic. As past research has documented, many students do not even pick up their exam results.”); see also Elizabeth M. Bloom, *A Law School Game Changer: (Trans)formative Feedback*, 41 OHIO N. U. L. REV. 227, 227 (2015)

As a result, inaccurate attributions for poor performance abound, and motivation for seeking and providing feedback varies. Even where a student seeks explanations for their poor performance, this search may mean something different depending on the abilities of the student: while “expert learners” are motivated by identifying attributions, “novice learners” are more likely to view these attributions as failures of innate ability and believe change is not possible.<sup>8</sup> The ability of a student to seek out accurate attributions and implement change is a crucial part of the self-regulated learning (SRL) cycle, encompassing both the self-reflective and forethought phases.<sup>9</sup>

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(“Many law professors experience the frustration of spending hours providing feedback to students only to find that the students fail to read it and, even when they do, they are not able to use it to enhance their understanding of the law or legal analysis.”); Michael Hunter Schwartz, *Teaching Law Students to Be Self-Regulated Learners*, 2003 MICH. ST. DCL L. REV. 447, 472 (“Complaints about students’ failure either ever to realize when they are confused about something or their failure to realize their confusion until it is too late in the semester to do something about the problem can be seen as failures of the students to self-monitor their learning while it is ongoing and to evaluate their learning after they have completed it. Similar are complaints about students’ failure to read the comments we write on exams and papers and learn from them or to take advantage of other learning opportunities we present to them; such avoidant behavior is typical of novice self-regulated learners.”)

8. MICHAEL HUNTER SCHWARTZ, *EXPERT LEARNING FOR LAW STUDENTS* (2d ed. 2008) (quoting Michael Hunter Schwartz, *Teaching Law Students to Be Self-Regulated Learners*, 2003 MICH. ST. DCL L. REV. 461. “[A]ttributions lead self-regulated learners to try again and to try harder when they fail; in contrast, novice learners are more likely to attribute their failures to ability.”)

9. Michael Hunter Schwartz, *Teaching Law Students to Be Self-Regulated Learners*, 2003 MICH. ST. DCL L. REV. 461 (“Self-regulated learning . . . involves the active, goal-directed, self-control of behavior, motivation, and cognition for academic tasks by an individual student.” (internal quotation marks omitted)).

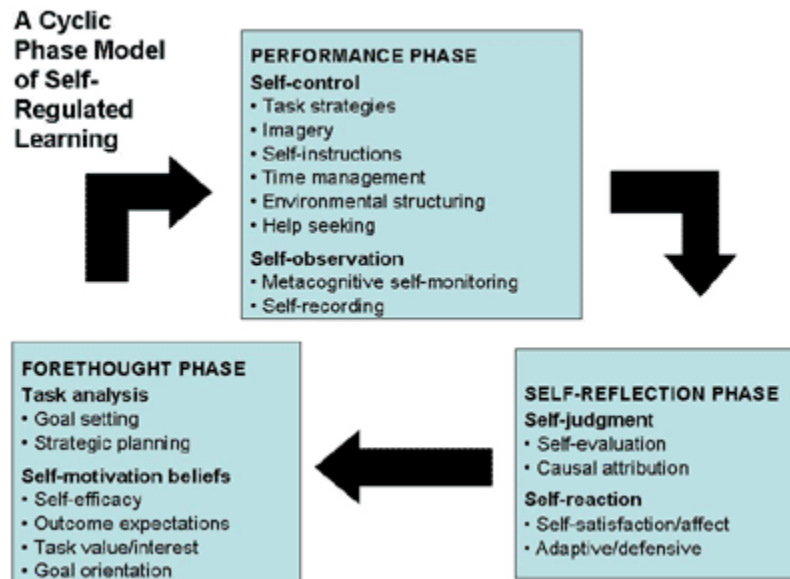


Image 1: Self-Regulated Learning cycle<sup>10</sup>

The cyclical model of self-regulated learning illustrates a constant process of reflection, forethought, and performance producing “self-control of behavior, motivation, and cognition for academic tasks by an individual student.”<sup>11</sup> Unfortunately, most incoming law students do not possess the metacognitive skills required to be self-regulated learners in control of their own education.

Metacognition “refers to one’s knowledge concerning one’s

10. Barry Zimmerman, *Barry Zimmerman Discusses Self-Regulated Learning Processes*, CLARIVATE ANALYTICS: ARCHIVE SCIENCEWATCH (Nov. 21, 2011), <http://archive.sciencewatch.com/dr/erf/2011/11decerf/11decerfZimm/>.

11. Paul R. Pintrich, *Understanding Self-Regulated Learning*, in *NEW DIRECTIONS FOR TEACHING AND LEARNING: UNDERSTANDING SELF-REGULATED LEARNING* 3, 5 (Paul R. Pintrich ed., 1995).

own cognitive processes.”<sup>12</sup> Law students’ unfamiliarity with metacognition is a problem because as legal educators, we aim to produce students who are self-regulated learners—students who take responsibility for their education and, ultimately, for their careers. Inculcating these skills in law students, however, is no easy task, and the Dunning-Kruger “miscalibration”<sup>13</sup> is one reason why. If students of varying strengths lack the capacity to accurately assess their own abilities, how can they figure out how and where to improve? How can we assist students who are “miscalibrating” (assuming that is nearly all of them) to become self-regulating learners, so that they might carry these skills into the practice of law?

One crucial tool in developing self-regulated learners is providing them with opportunities for formative assessment. In contrast to summative assessment, which focuses on evaluation and grades, formative assessment emphasizes process and feedback.<sup>14</sup> If the goal is for students to learn how to seek out and incorporate feedback (both their own or others), legal educators must give them feedback and the opportunity to implement it.<sup>15</sup> Formative assessment is an ideal way to begin instilling self-regulated learning practice because of its cyclical relationship to both providing and responding to feedback.<sup>16</sup>

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12. Robin A. Boyle, *Employing Active-Learning Techniques and Metacognition in Law School: Shifting Energy from Professor to Student*, 81 U. DET. MERCY L. REV. 1, 7 (2003) (quoting John H. Flavell, *Metacognitive Aspects of Problem Solving*, in *THE NATURE OF INTELLIGENCE* 231 (Lauren B. Resnick ed., 1976)).

13. KRUGER & DUNNING, *supra* note 2, at 1122; *see also* Michelle V. Achacoso, *Post-Test Analysis: A Tool for Developing Students’ Metacognitive Awareness and Self-Regulation*, in 100 NEW DIRECTIONS FOR TEACHING AND LEARNING 115, 115 (2004) (“[S]tudents learn to gauge how well their perception of performance correlates with their effort . . . this comparison is called calibration of performance.”)

14. Herbert N. Ramy, *Moving Students from Hearing and Forgetting to Doing and Understanding: A Manual for Assessment in Law School*, 41 CAP. U. L. REV. 837, 843-44 (2013).

15. Corrada, *supra* note 6, at 317 (quoting WILLIAM M. SULLIVAN ET. AL., *EDUCATING LAWYERS: PREPARING FOR THE PROFESSION OF LAW* 206 (2007)). “Students cannot learn unless the results of their summative assessments are explained to them. Assigning a student a grade or even describing the level of professional development does not help the student learn how to improve . . . . Students learn with feedback.” *Id.*

16. *See* Denitsa R. Mavrova Heinrich, *Cultivating Grit in Law Students: Grit, Deliberate Practice, and the First-Year Law School Curriculum*, 47 CAP.

The importance of formative assessment has become a popular topic of discussion among legal educators, with some calling it the “most effective [tool] to improve student learning.”<sup>17</sup> Formative assessments are particularly important in developing self-regulated learners, because they provide the student with both feedback and the opportunity to incorporate suggested changes into their study and exam-taking techniques. However, despite a general consensus that more formative assessment is important, barriers remain. Chief among these barriers is the daunting prospect of adding more assessment to the workloads of professors, particularly those who teach large 1L classes.

In an attempt to increase the number of assessments students receive and improve student metacognitive abilities, while also avoiding additional grading responsibilities, some professors incorporate self-guided exercises.<sup>18</sup> However, opportunities for self-assessment remain largely uncommon, and “students are rarely asked to self-evaluate their work or estimate their competence on new tasks.”<sup>19</sup> In addition to depriving students of the opportunity to improve their self-assessment skills, this lack of opportunity also results in

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U. L. REV. 341, 369 (2019) (“[G]iven the central role of feedback to deliberate practice, students could benefit from learning specific strategies about how to view, process, and respond to feedback in law school.”).

17. Rogelio A. Lasso, *Is Our Students Learning? Using Assessments to Measure and Improve Law School Learning and Performance*, 15 BARRY L. REV. 75, 88 (2010). Lasso explains that “[f]ormative assessments are the most effective tools to improve student learning and performance in a course, in law school, and on the bar exam” particularly because they help “provide students the feedback they need to develop self-learning skills and improve performance in law school and beyond.” *Id.* at 106.

18. Clinical and legal writing faculty are particularly adept at including these activities, which may include self-reflection journal exercises and peer editing. See Olympia Duhart, *The ‘F’ Word: The Top Five Complaints (and Solutions) about Formative Assessment*, 67 J. LEGAL EDUC. 531, 537 (2018) (discussing the “Self-Edit Sheet”); Cassandra L. Hill, *The Elephant in the Law School Assessment Room: The Role of Student Responsibility and Motivating our Students to Learn*, 56 HOW. L.J. 447, 499 (2013) (discussing the “Student Responsibility Survey” and student learning contracts); 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, 184-93 (2012) (discussing the use of portfolios, post-critique assessments, and grading rubrics).

19. Barry J. Zimmerman, *Becoming a Self-Regulated Learner: An Overview*, 41 THEORY INTO PRAC. 64, 69 (2002).



professors “seldom[ly] assess[ing] students’ beliefs about learning . . . in order to identify cognitive or motivational difficulties before they become problematic.”<sup>20</sup> One reason for the lack of more widespread self-assessment activities is the particular challenge of incorporating such activities into one of the most challenging arenas: large 1L doctrinal<sup>21</sup> classes full of students who are the least familiar with the course content, the structure of legal education, and concepts of self-regulated learning.

Exam wrappers were originally developed to help undergraduate students move “beyond the grade” when exams are returned.<sup>22</sup> These relatively simple one-page handouts walk students through the process of reflecting on their exam preparation and exam taking skills, and prompt them to consider changes to their techniques. In addition to their potential to improve students’ study and exam-taking skills, exam wrappers also empower students with life-long self-assessment practices.

Exam wrappers have been used and studied in a number of disciplines, including chemistry, physics, language acquisition, criminology, and food sciences.<sup>23</sup> They have yet to be studied in legal education. Wrappers are one effective and efficient tool for fostering self-assessment skills in law students, and graduating

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20. *Id.*

21. Niedwiecki, *supra* note 18, at 151-52 (citing Alice M. Noble-Allgire, *Desegregating the Law School Curriculum: How to Integrate More of the Skills and Values Identified by the MacCrate Report into a Doctrinal Course*, 3 NEV. L.J. 32, 32-33 (2002)) (“For the purposes of this article, ‘doctrinal courses’ are those that focus on teaching the substance of an area of law, even though some skills may be taught. Examples of doctrinal courses include contracts, torts, civil procedure, property, and constitutional law. ‘Skills courses,’ however, are those that focus on teaching some particular lawyering skill. Examples of skills courses include legal research and writing, negotiation, contract drafting, clinics, and externships.”). I acknowledge that this is a somewhat false divide, and that referencing such a dichotomy has the unwanted effect of underemphasizing the skills taught in doctrinal courses, as well as the doctrinal content obtained in many skills courses.

22. Marsha C. Lovett, *Make Exams Worth More than the Grade: Using Exam Wrappers to Promote Metacognition*, in USING REFLECTION AND METACOGNITION TO IMPROVE STUDENT LEARNING: ACROSS THE DISCIPLINES, ACROSS THE ACADEMY 18, 30 (Matthew Kaplan et al. eds., 2013) [hereinafter USING REFLECTION].

23. See *infra* Part III Exam Wrappers: A Self-Assessment Tool with Promise

lawyers who are ethical, reflective, and self-regulated. This Article has four sections: (1) a background section briefly reviewing metacognition and self-regulated learning; (2) a section arguing for the importance of self-assessment as a crucial skill for law students and lawyers alike; (3) a scholarship review section summarizing the history of exam wrappers as well as recent studies regarding their use in a variety of higher education settings; and (4) a proposal for the development and implementation of exam wrappers in legal education and best practices for their use.

## II. Today's Law Student: Unprepared and Overconfident?

In a series of studies, Dunning and Kruger reached a number of conclusions about the abilities of test subjects to accurately assess their own skill level and performance; these conclusions have been well documented.<sup>24</sup> Broadly, Dunning and Kruger concluded that “[p]eople are typically overly optimistic when evaluating the quality of their performance on social and intellectual tasks. In particular, poor performers grossly overestimate their performances because their incompetence deprives them of the skills needed to recognize the deficits.”<sup>25</sup> While Dunning and Kruger did not study law

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24. In short:

[1] test subjects in the bottom quartile of each of the studies overestimated both their performance and their quartile placement, thinking themselves above average . . . .

[2] bottom quartile performers were less proficient at distinguishing between correct and incorrect answers . . . .

[3] bottom-quartile performers were less able to discern the difference between superior and inferior performance of their peers . . . .

[4] improving metacognitive skills improved the recognition of incompetence, leading to the conclusion that ‘one way to make people recognize their incompetence is to make them competent’ . . . .

[5] the incompetent fail[ed] to learn from feedback and, more specifically, ‘how the incompetent fail, through live experience, to learn that they are unskilled.’

Ruth Vance & Susan Stuart, *Of Moby Dick and Tartar Sauce: The Academically Underprepared Law Student and the Curse of Overconfidence*, 53 DUQ. L. REV. 133, 143-44 (quoting Kruger & Dunning, *supra* note 2, at 1131).

25. Larry O. Natt Gantt, II & Benjamin V. Madison, III, *Self-Directedness*

students, observations and studies over the last decade seem to confirm that law students are arriving at law school both unprepared and overconfident<sup>26</sup>, reflecting a miscalibration between their perceived skill level and performance.

The cause of law student unpreparedness has been identified by some as “a unique combination of factors that came together while the Millennial Generation matured.”<sup>27</sup> These factors include policies like No Child Left Behind, which reflected an increased focus on standardized testing; the ubiquity of multitasking and digital media; and a shift in parenting that focused on instilling confidence and a sense of individual uniqueness.<sup>28</sup> Others pinpoint the inadequacies of many students’ educational experiences prior to law school, finding that “[t]oday more law students begin their course of study with poor study and metacognition skills, not accustomed to independent and active learning.”<sup>29</sup>

Despite this lack of preparedness, professors often find that law students have an inflated sense of their own ability to succeed in law school.<sup>30</sup> This is somewhat understandable—the majority of law students have achieved academic success, often

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*and Professional Formation: Connecting Two Critical Concepts in Legal Education*, 14 U. ST. THOMAS L.J. 498, 515 (2018) (quoting Joyce Ehrlinger et al., *Why the Unskilled Are Unaware: Further Exploration of (Absent) Self-Insight Among the Incompetent*, 105 ORGAN. BEHAV. & HUM. DECISION PROCESS 98, 98 (2008)).

26. See generally Vance & Stuart, *supra* note 24, at 134-35 (citing Susan Stuart & Ruth Vance, *Bringing a Knife to the Gunfight: The Academically Underprepared Law Student & Legal Education Reform*, 48 VAL. U. L. REV. 41, 68 (2013) (discussing Millennials’ overconfidence and inflated expectations as compared to previous generations).

27. Vance & Stuart, *supra* note 24, at 134.

28. *Id.*

29. Melissa J. Marlow, *It Takes a Village to Solve the Problems in Legal Education: Every Faculty Member’s Role in Academic Support*, 30 U. ARK. LITTLE ROCK L. REV. 489, 496-97 (2008); see also Vance & Stuart, *supra* note 24, at 133-34 (“The legal academy and others in higher education know that the academic skills of many of their students are lacking, both at the time of matriculation and at graduation . . . . This state of affairs has been the norm for the last several years and is verified by objective studies and personal experience. Hence, many matriculating law students arrive at law school woefully underprepared at the same time legal educators are challenged with the task of producing practice-ready graduates.”).

30. See Vance & Stuart, *supra* note 24, at 140 (discussing the phenomenon that “[e]ven though many college students lack the self-discipline to study sufficiently, they have very high expectations for their careers.”).

without being required to develop metacognitive skills. Hence, because these students have previously experienced academic success without significant effort or metacognitive reflection, they expect this pattern to continue in law school.<sup>31</sup> When this fails to be the case, and when their previously adequate efforts do not yield success, students quickly place blame on the methods of instruction, partially because they “probably never thought of learning as a joint effort between professor and student.”<sup>32</sup> An additional barrier to students holding an accurate sense of their preparedness is the culture of law: “[l]aw appears to be one of the few domains that not only expects but rewards overconfidence . . . the distinction between projecting confidence and deluding oneself can be . . . fuzzy.”<sup>33</sup>

This is not an effective culture for learning: a student’s “overconfidence makes her unable to recognize her incompetence and thereby limits her ability to improve her performance.”<sup>34</sup> Thus, the student fails to engage in the reflection required for self-regulated learning, and fails to improve. Meanwhile, many teachers “tend to blame disappointing results on the students themselves, stereotyping the ‘consumer-student’ who wants the best educational credentials with the least amount of effort,”<sup>35</sup> without recognizing that it may not entirely be an issue of effort or ability, but rather in part a result of students lacking knowledge about how to study and take law school exams.

It is this moment where students previously confident in their abilities receive an unexpected and unwelcome result that holds great challenge and promise. Poor performance on an exam, for example, is a crucial moment of opportunity: the time to intervene and help students “recalibrate,” examine their approach to learning, and move forward with improved

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31. Vance & Stuart, *supra* note 24, at 141; *see also* Sue Shapcott et al., *The Jury Is In: Law Schools Foster Students’ Fixed Mindsets*, 42 L. & PSYCHOL. REV. 1, 11 (2017-2018) (“[M]ost law students, especially at top-ranked schools, have previously had little reason to question their intelligence. Furthermore, before entering law school, they have been the top performing students showered with adulation about their intelligence.”).

32. Vance & Stuart, *supra* note 24, at 141.

33. RANDALL KISER, *SOFT SKILLS FOR THE EFFECTIVE LAWYER* 46 (2017).

34. Vance & Stuart, *supra* note 24, at 143.

35. Elizabeth M. Bloom, *Creating Desirable Difficulties: Strategies for Reshaping Teaching and Learning in the Law School Classroom*, 95 U. DET. MERCY L. REV. 115, 116 (2018).

academic skills and greater self-knowledge. For this moment to be a fruitful one for growth, students need assistance in developing the metacognitive skills to self-assess and proceed wisely.

### A. Thinking About Thinking

The term metacognition has been defined in a number of ways, from the informal but attractive definition “thinking about thinking” to the more detailed proposition that metacognition “refers to one’s knowledge concerning one’s own cognitive processes or anything related to them, e.g., the learning-relevant properties of information or data.”<sup>36</sup> One useful explanation is that metacognition “refers to the self-monitoring by an individual of his own unique cognitive processes.”<sup>37</sup> In the educational setting, metacognition “can help students learn to take control of their own learning by defining learning goals and monitoring their progress in achieving them.”<sup>38</sup> Regardless of which exact definition is used, the term has a strong implication of making the unknown or unseen, known and understood, or rather, making “thinking visible to both teachers and students.”<sup>39</sup>

In practice, metacognition goes beyond a student’s understanding of their own “cognitive style.” The student must combine that understanding with an assessment of their existing approach to studying, in order to select study methods “that [respond] to both their own cognitive style and the professor’s teaching style.”<sup>40</sup> Teaching metacognitive skills to struggling law students improves both the accuracy of their self-assessment and their academic performance.<sup>41</sup> However, law

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36. Boyle, *supra* note 12, at 3 (quoting Flavell, *supra* note 12, at 231).

37. Anthony S. Niedwiecki, *Lawyers and Learning: A Metacognitive Approach to Legal Education*, 13 WIDENER L. REV. 33, 35 (2006).

38. JOHN D. BRANSFORD ET AL., HOW PEOPLE LEARN: BRAIN, MIND, EXPERIENCE, AND SCHOOL: EXPANDED EDITION 18 (2000).

39. Ramy, *supra* note 14, at 844 (quoting BRANSFORD ET AL., *supra* note 38, at 24).

40. Boyle, *supra* note 12, at 13-14 (citing Paula Lustbader, *Construction Sites, Building Types, and Bridging Gaps: A Cognitive Theory of the Learning Progression of Law Students*, 33 WILLAMETTE L. REV. 315, 324 (1997)).

41. Vance & Stuart, *supra* note 24, at 148 (“[If] we accept Dunning and

school courses do a disparate job of teaching metacognitive skills. The ability of legal education to convey the importance of metacognition is hampered in part by a reliance on the end-of-semester (occasionally even end-of-year) exam. While all law schools aim to teach some level of “higher-order thinking skills,” the focus on summative assessment often results in students failing to “even consider or test the successfulness of their learning during the semester.”<sup>42</sup> Without our intervention, it is unlikely that students will develop metacognitive skills on their own. And those in greatest need may continue to fall behind: an empirical study found that while the metacognitive skills of newly admitted law students were generally weak, “students with lower academic achievements are even more in need of learning metacognitive skills.”<sup>43</sup> Further, these problems persist if students are assessed more frequently but without receiving feedback.

Developing metacognitive skills—such as the ability to assess when study techniques are not working, to understand why, and to make changes as a result—is particularly important in an educational setting because students need to develop a growth mindset in order to succeed academically. Many students enter law school with a fixed mindset, believing that past success (such as admission to law school) has come as a result of innate intelligence.<sup>44</sup> When their first semester grades do not go as planned, those students with fixed mindsets become easily defeated, believing that they must not “have what it takes.” Growth mindset—the idea that knowledge and skill are learned, not innately possessed—would allow these same students to view their academic performance as one that needs improvement and that that improvement is possible. Mindset

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Kruger’s basic proposition that teaching the necessary skills to poor performers will improve both their self-assessment and their performance, then we necessarily start with metacognition as a key intellectual skill necessary for success in law school.”).

42. Shailini Jandial George, *Teaching the Smartphone Generation: How Cognitive Science Can Improve Learning in Law School*, 66 ME. L. REV. 164, 181 (2013).

43. Bloom, *supra* note 35, at 119 (quoting Anat Zohar, *The Nature and Development of Teachers’ Metastrategic Knowledge in the Context of Teaching Higher Order Thinking*, 15 J. LEARNING SCI. 331, 337 (2006)).

44. Vance & Stuart, *supra* note 24, at 141; *see also* Shapcott et al., *supra* note 31.

expert and social psychologist Carol Dweck has found that “people learn better when they believe that the things they are learning to do can be done well as a result of practice and effort than when they have in mind that the things they are learning to do are done well as a result of native talent.”<sup>45</sup>

Students with strong metacognitive skills understand that fixed ideas of intelligence are not determinative of their success, and these skills allow them to persevere in law school even when faced with discouraging results or intimidating peers:

It is important for students to discover that they can still be successful in law school even if they are not as “intelligent” as they perceive others around them to be. The relationship between metacognition and intelligence has been articulated in the following way: “Intelligence is the ability to learn to apply knowledge in one’s life while metacognition is the ability to monitor and evaluate how well one is doing at learning and applying that knowledge and then making necessary adjustments.”<sup>46</sup>

This is particularly crucial because students who successfully use metacognitive approaches to learning outperform peers of similar intelligence.<sup>47</sup> As such, “[i]t follows that teaching students how to learn is likely to serve them better than drilling legal doctrine into them.”<sup>48</sup>

Metacognition also serves as a means to “self-repair,” a cyclical process of “self-regulation, monitoring of comprehension and repair of comprehension breakdown.”<sup>49</sup> This process of self-regulation is the ultimate goal of teaching our students metacognitive skills. Initially students need assistance to

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45. Peggy Cooper Davis et al., *Clinical Theory Workshop: Making Law Students Healthy, Skillful, and Wise*, 56 N.Y. L. SCH. L. REV. 487, 493 (2011-2012).

46. Bloom, *supra* note 35, at 118.

47. *Id.*

48. *Id.*

49. Boyle, *supra* note 12, at 14 (quoting Peter Dewitz, *Legal Education: A Problem of Learning from Text*, 23 N.Y.U. REV. L. & SOC. CHANGE 225, 229 (1997)).

understand the importance of metacognition and to implement those skills into their study and exam-taking routine, but by the time they graduate (though ideally before), we will have empowered them to become self-regulated learners who are “metacognitively, motivationally, and behaviorally active participants in their own learning process.”<sup>50</sup>

Self-regulated learning is not a “mental ability or an academic performance skill; rather it is the self-directive process by which learners transform their mental abilities into academic skills.”<sup>51</sup> Self-regulated learning requires students to actively engage in all parts of the learning process, continually assessing their understanding “instead of passively receiving knowledge.”<sup>52</sup> Active learning has been described as “require[ing] each student to manipulate and process information in his or her own way in order to fully understand it.”<sup>53</sup> One way to do that is to begin passing the reigns of learning and assessment over to the student as soon as 1L year, by including active learning expectations and activities that support developing the skill of self-assessment.

Regardless of the form active learning takes in the law school classroom, for students to develop their metacognitive skills and become self-regulated learners, they require feedback. Ideally, “effective feedback engages students in active learning exercises that help them learn the concept, self-monitor by assessing their understanding, and build self-motivation.”<sup>54</sup> The ability to absorb, understand, and develop from feedback is another aspect of and skill learned through metacognitive growth. Simply put, students with poorly developed metacognitive skills are often unable to benefit from feedback in the same way as students who have improved these skills,

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50. Barry J. Zimmerman, *Becoming a Self-Regulated Learner: Which are the Key Subprocesses*, 11 CONTEMP. EDUC. PSYCHOL. 307, 307-313 (1986).

51. Zimmerman, *supra* note 19, at 65.

52. Bloom, *supra* note 35, at 117.

53. Paula Lustbader, *From Dreams to Reality: The Emerging Role of Law School Academic Support*, 31 U.S.F. L. REV. 839, 855 (1997).

54. Bloom, *supra* note 7, at 234; *see also* Joi Montiel, *Empower the Student, Liberate the Professor: Self-Assessment by Comparative Analysis*, 39 S. ILL. U. L.J. 249, 252 (2015) (“The ability to learn from feedback and apply this new knowledge to future learning—metacognition—is necessary for a law student to become a self-regulated learner.”).



furthering a cycle of miscalibration.

Perhaps the most persuasive illustration of the disparate abilities of students to benefit from feedback is Professor Elizabeth Ruiz Frost's excellent article about the shortcomings of model answers.<sup>55</sup> Frost concludes that while model answers properly used can serve as a helpful learning tool for some students, in general "model answers are not a particularly effective method for conveying formative feedback."<sup>56</sup> This is because "metacognitive barriers . . . cause many students to distort the message in a model answer or misunderstand their own work in relation to the model answer. That means that, typically, . . . the students who perform least well on assessments—and who therefore need feedback most—will get the least from a model answer."<sup>57</sup>

Indeed, not only is it more difficult for students with low metacognitive skills to receive as much benefit from feedback, they may actually be resistant to it. As a result of their fixed mindset, these students are more inclined to react "negatively to feedback as it is viewed as an attack on their key traits."<sup>58</sup> In contrast, students with a growth mindset seek "feedback to stimulate their growth and to learn effectively."<sup>59</sup> To strengthen the metacognitive skills of students and graduate self-regulated learners, we need to engage our students in active learning, providing formative assessments that increase their comfort with feedback and self-assessment.

### III. Does Self-Assessment Matter?

Given the incredible number of skills law students are already tasked with learning, is self-assessment of significant enough importance to emphasize? Yes. Self-assessment is a skill necessary for both success in law school as well as success

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55. See generally Elizabeth Ruiz Frost, *Feedback Distortion: The Shortcomings of Model Answers as Formative Feedback*, 65 J. LEGAL EDUC. 938 (2016).

56. *Id.* at 965.

57. *Id.*

58. Debra S. Austin, *Positive Legal Education: Flourishing Law Students and Thriving Law Schools*, 77 MD. L. REV. 649, 675 (2018).

59. *Id.* at 676.

in practice. Self-assessment is a powerful site of professional identity development, academic success, resilience, and intrinsic motivation.

#### A. Self-Assessment as Assessment

Decades of literature on teaching and learning instruct us that “assessment is at the heart of the student experience.”<sup>60</sup> Many within legal education have persuasively argued for an increased focus on assessment practices,<sup>61</sup> noting “[a]ssessment methods and requirements have a greater influence on how and what students learn than any other single factor.”<sup>62</sup> While American Bar Association (ABA) Standard 314 stops short of requiring any particular type or regularity of assessment, it does instruct law schools to “utilize both formative and summative assessment methods in its curriculum to measure and improve student learning and provide meaningful feedback to students.”<sup>63</sup> Interpretation 314-1 elaborates on formative assessment specifically, clarifying that these “are measurements at different points during a particular course or at different points over the span of a student’s education that provide meaningful feedback to improve student learning.” This is in contrast to summative assessment, which provides

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60. Bloom, *supra* note 7, at 229 (quoting Chris Rust et al., *A Social Constructivist Assessment Process Model: How the Research Literature Shows Us This Could Be Best Practice*, 30 ASSESSMENT & EVALUATION IN HIGHER EDUC. 231, 231 (2005)). See generally MICHAEL HUNTER SCHWARTZ ET AL., TEACHING LAW BY DESIGN: ENGAGING STUDENTS FROM THE SYLLABUS TO THE FINAL EXAM ch. 9 (2d ed. 2017).

61. See generally ROY STUCKEY ET AL., BEST PRACTICE FOR LEGAL EDUCATION: A VISION AND A ROADMAP (Roy Stuckey ed., 2007); WILLIAM M SULLIVAN ET AL., CARNEGIE FOUND. FOR THE ADVANCEMENT OF TEACHING, EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW (2007).

62. Lasso, *supra* note 17, at 76.

63. STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 2018-2019 ch. 3, standard 314, at 23 (AM. BAR ASS’N 2018) [https://www.americanbar.org/content/dam/aba/publications/misc/legal\\_education/Standards/2018-2019ABASStandardsforApprovalofLawSchools/2018-2019-aba-standards-chapter3.pdf](https://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Standards/2018-2019ABASStandardsforApprovalofLawSchools/2018-2019-aba-standards-chapter3.pdf) [hereinafter ABA STANDARDS]; see also James McGrath, *Planning Your Class to Take Advantage of Highly Effective Learning Techniques*, 95 U. DET. MERCY L REV. 154, 160 (2018) (asserting that ABA Standards and Rules of Procedure 301, 302, 314, and 315 “provide an excellent impetus for modernizing our programs and classes”).

“measurements at the culmination of a particular course or at the culmination of any part of a student’s legal education that measure the degree of student learning.”<sup>64</sup>

While there has been much discussion in legal education on increased assessment, little focus has been placed on the students’ role.<sup>65</sup> One understandable concern in emphasizing the students’ role via self-assessment is the admitted weakness of these very students. Given that the professor is not the one doing the assessing,<sup>66</sup> it is reasonable to question whether self-assessment activities constitute meaningful assessment. Rest assured that self-assessment, when done correctly, is indeed formative assessment. Carefully planned self-assessment activities encompass all of the required aspects of formative assessment.

First, self-assessment provides feedback *during* the learning process. Second, it provides the student with an understanding of the learning outcomes<sup>67</sup> for the course . . . . Thus, even though the professor is not providing direct formative assessment in the more traditional sense, [self-assessment] is a formative assessment and, for some, it is an “ideal” formative assessment.<sup>68</sup>

More poetically stated,

[T]he function of assessment is to help us guide our students in achieving the success that they, and we, desire. The word “assess” comes from the Latin word “assidere,” which means “to

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64. ABA STANDARDS, *supra* note 63, ch. 3, standard 314, at 23.

65. Hill, *supra* note 18, at 448-49; *see also* Hill, *supra* note at, at 456 (“There is very limited formal discussion on evaluating the law students’ role and contribution to the learning and assessment process.”).

66. *Id.* at 489 (arguing that while professors are providing crucial feedback, the student is the one doing the actual assessment).

67. *See* ABA STANDARDS, *supra* note 63, ch. 3, standard 302, at 15.

68. Montiel *supra* note 54, at 273-74 (quoting Niedwiecki, *supra* note 18, at 183-84) (“Research shows that incorporating self-assessment into the formative assessment process is ideal because it allows the students to focus keenly on the feedback and use it to improve learning.”).

sit beside.” Thinking of assessment from this perspective, of having a conversation with the student to help her learn from her mistakes and confirm what she learned correctly, it should then be seen as a very powerful tool in educating our future lawyers.<sup>69</sup>

Self-assessment is an excellent example of “sitting beside” our students as we jointly explore assessment and engage in active learning that requires student participation in all stages.

### B. Self-Assessment as Mindset and Resilience

Successful self-regulating learners possess—and foster—a growth mindset. Regardless of their field of study or profession,

people are positioned along a continuum of how they perceive the malleability of abilities or traits. At one end of the continuum, people perceive an ability as something that is innate and unchangeable . . . a fixed mindset. Anchored at the other end of the continuum is a growth mindset. People holding a growth mindset perceive ability as changeable.<sup>70</sup>

This mindset impacts not only an individual’s sense of their own capacities and intelligence, but also their beliefs about their capacity for improvement. For example, “a person with a growth mindset believes that with work, they can actually get smarter.”<sup>71</sup> For students, this perception of ability plays “a key role in their motivation and achievement” and researchers have found that “if we changed students’ mindsets, we could boost their achievement.”<sup>72</sup>

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69. McGrath, *supra* note 63, at 160.

70. Shapcott et al., *supra* note 31, at 8.

71. McGrath, *supra* note 63, at 164.

72. *Id.* (quoting Carol Dweck, *Carol Dweck Revisits the ‘Growth Mindset,’* EDUC. WEEK (Sept. 22, 2015), <https://www.edweek.org/ew/articles/2015/09/23/carol-dweck-revisits-the-growth-mindset.html>).

This is particularly true when students are faced with complex problems and perceived obstacles: students with a growth mindset perceive challenging work as an opportunity, and embrace feedback as an opportunity to learn from their mistakes.<sup>73</sup> This is because they see the connection between effort and improvement.<sup>74</sup> In contrast, students who are approaching learning with a “rigid[,] fixed mindset are likely to see extra effort as futile or a waste of time,” as they believe their poor performance to be a product of innate or unchangeable attributes.<sup>75</sup>

Thus, it is not only that a growth mindset assists with more productive learning, but also that a fixed mindset represents a barrier to success. Generally, students with a fixed mindset “do not like working hard, believing that they are born with a certain amount of intelligence, and the proper amount of learning should come easily. They also do not handle failure very well and can become easily discouraged.”<sup>76</sup> These perceptions have a concrete impact on performance, affecting student and professor alike: because students with fixed mindsets are “motivated by a need to demonstrate their intelligence,” they avoid challenges and are more likely to display “defensive behavior.”<sup>77</sup> Professors may find these students are more likely to “[shun] help and feedback[. . .] to attribute failures to the stupidity of others and[. . .] even stoop to cheating to protect their image of intelligence.”<sup>78</sup> As a group, “students with a fixed mindset demonstrate an array of helpless behavior when the going gets

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73. McGrath, *supra* note 63, at 164 (“Students with a growth mindset generally view challenging work as opportunities for growth, and do not see making mistakes as something negative, but [rather as] part of the learning process.”); *see also* Shapcott et al., *supra* note 31, at 9 (“[S]tudents with growth mindsets are more likely to persist at challenging tasks, embrace mastery goals, ask for help, and learn from their mistakes. Their goal is to learn; therefore, they embrace feedback and accept it in the spirit that it was intended.”).

74. Austin, *supra* note 58, at 676 (asserting that a growth mindset allows students to accept feedback and to “persevere in the face of setbacks because they believe their efforts lead to improvement.”).

75. McGrath, *supra* note 63, at 165.

76. *Id.* at 164.

77. Shapcott et al., *supra* note 31, at 9.

78. *Id.* at 9-10 (“Because [fixed-mindset students] perceive intelligence as a fixed commodity, they will be unlikely to ask professors for help because it could be seen as lacking the intelligence to figure things out for themselves.”).

tough and become very difficult students to teach.”<sup>79</sup> Clearly, this is not what we hope to see in law students.

Much of this may sound familiar to law professors, who cannot understand why students do not take them up on generously offered extra review classes or opportunities for feedback. Encouraging the adoption of a growth mindset is particularly useful in the law school setting because students “have been told implicitly and explicitly their relative level of intelligence and abilities”<sup>80</sup> via GPA, LSAT, and class ranking. As a result, these students are more inclined to possess fixed mindset ideas around intelligence.<sup>81</sup> It has been persuasively argued that “the typical law school regime impedes healthy professional development and fosters student disengagement.”<sup>82</sup> It does so by encouraging a fixed intelligence mindset by “implicitly or explicitly support[ing] the idea that legal acumen is more the result of inborn intelligence than the result of training and disciplined, thoughtful effort.”<sup>83</sup> This also results in a resistance to and fear of failure, contributing “deleteriously to the mental health and intellectual curiosity of some law students.”<sup>84</sup>

Not only does law school encourage a fixed mindset, but it often discourages those who may begin their legal education possessing a growth mindset: in a study of six law schools,<sup>85</sup> researchers found “the law school experience may be affecting law students’ mindset in a way that is associated with maladaptive behavior. Participants’ mindset scores trended downward (indicating a lower growth mindset in this case) from

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79. *Id.* at 9.

80. McGrath, *supra* note 63, at 165.

81. *Id.*

82. Davis et al., *supra* note 45, at 488.

83. *Id.* at 489.

84. Kaci Bishop, *Framing Failure in the Legal Classroom: Techniques for Encouraging Growth and Resilience*, 70 ARK. L. REV. 959, 959-60 (“To help law students be effective in their studies and prepared for the intellectual and emotional demands of practice, law professors have a responsibility to help counteract law school’s negative institutional forces. Like other skills that we teach, we can teach our students to react to failure with a ‘growth mindset’ and resilience and help them to engage even when something is difficult.”)

85. Shapcott et al., *supra* note 31. The law schools were geographically diverse and ranged in ranking; 425 law students responded.

year one through year three.”<sup>86</sup> Bluntly put, the propensity of law students to become increasingly attached to a fixed mindset “suggests that during the law school experience, some students become less prepared to withstand the challenges of their legal careers.”<sup>87</sup>

When law students “are succeeding, a fixed mindset is unlikely to have any adverse effect on their performance . . . . However, when law students are struggling—an inevitable part of law school and practicing law—their mindsets will differentiate their ability to learn from mistakes, persist, and remain resilient.”<sup>88</sup> However, law students who embrace a growth mindset “will be more likely to seek help from professors, accept feedback for improvement, embrace new challenges, and see the success of others as motivating.”<sup>89</sup> Because these students believe that intelligence can be cultivated, “they are eager to learn from others and see challenges and failures as a pathway toward improvement.”<sup>90</sup> As a result, they are prepared to “roll with the ups and downs that their legal careers will throw at them.”<sup>91</sup>

One challenge in encouraging growth mindset among law students is that many law professors also exhibit misunderstandings about mindset. There exists, for many law professors, “a belief . . . that it is not important to teach the mechanics of a law exam and that exam performance is a direct result of raw intelligence and hard work.”<sup>92</sup> This can create a “frustrating irony” whereby “most law school faculty members seek to inculcate in their students a growth mindset . . . but too often teach in a way that creates a fixed mindset.”<sup>93</sup>

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86. *Id.* at 28-29 (noting the role of gender: “Female participants[] mindsets were significantly more growth-minded than their male counterparts[] . . . . [In another study about mindset and stereotypes regarding intelligence,] researchers found that in academic cultures that emphasized an innate, unteachable intelligence as the key to success, women were most likely to be underrepresented.”).

87. Shapcott et al., *supra* note 31, at 31.

88. *Id.* at 11.

89. *Id.* at 10.

90. *Id.*

91. *Id.*

92. Corrada, *supra* note 6, at 318.

93. Paul Lippe, “Grow” Your Law School? *The What, Why and Whether of Denver Law*, ABA JOURNAL: LEGAL REBELS (Oct. 28, 2015 1:45 PM),

Accepting that embracing and cultivating a growth mindset is important for law students and practicing attorneys alike, self-assessment is one way to introduce and give students a framework for practicing these skills.<sup>94</sup> Self-assessment activities give students the opportunity to employ a growth mindset by asking students not only to reflect on their behavior and performance, but also to actively make a plan to improve both. This conveys to students that both study techniques and exam performance are skills that can be strengthened and are not reflections of innate ability. To succeed in law school, students need to go beyond attempted memorization of large quantities of material and push themselves to delve deeper into analysis and application of the law. In using self-assessment to introduce students to the growth mindset, students are both prevented from relying on stagnant ideas of innate intelligence that give them permission to avoid putting in additional effort, and are also given a sense of hope that subpar performance might be overcome.

One aspect of a growth mindset is resilience, which can be defined, simply, as “a person’s capacity for stress-related growth.”<sup>95</sup> Resilience is inextricable from mindset<sup>96</sup>: “any behavioral, attributional, or emotional response to an academic or social challenge that is positive and beneficial for development (such as seeking new strategies, putting forth greater effort, or solving conflicts peacefully)” is considered resilient.<sup>97</sup> Resilience is particularly important given that

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[http://www.abajournal.com/legalrebels/article/grow\\_your\\_law\\_school\\_the\\_wh\\_at\\_why\\_and\\_whether\\_of\\_denver\\_law](http://www.abajournal.com/legalrebels/article/grow_your_law_school_the_wh_at_why_and_whether_of_denver_law).

94. McGrath, *supra* note 63, at 165 (“It is important to note that is it not having a growth mindset, but employing that growth mindset that leads to greater achievement.”).

95. Paula Davis-Laack, *What Resilient Lawyers Do Differently*, FORBES (Sept. 26, 2017 5:04 PM), <https://www.forbes.com/sites/pauladavislaack/2017/09/26/what-resilient-lawyers-do-differently/#3befc8c43495>.

96. Shapcott et al., *supra* note 31, at 8 (citing David Scott Yeager & Carol S. Dweck, *Mindsets that Promote Resilience: When Students Believe the Personal Characteristics Can Be Developed*, 47 EDUC. PSYCHOL. 302, 303 (2012)) (defining mindset as “one’s perception of the ability to change a trait, characteristic, or skill.”).

97. Yeager & Dweck, *supra* note 96, at 303. “In contrast, . . . [a]ny response to a challenge that is negative or not beneficial for development (such as helplessness, giving up, cheating or aggressive retaliation) [is considered]



“[l]awyering is stressful” and “involves struggles, frustrations, and many failures.”<sup>98</sup>

Resilience is at the center of conversations about “soft skills” necessary to law students and lawyers. In fact, the National Task Force on Lawyer Well-Being, after surveying over 20,000 lawyers about the skills required for practice, recommended “that one of the important things law firms and organizations can do to help build lawyer well-being is offering courses, information and workshops on developing resilience.”<sup>99</sup> Specifically with regard to mindset, scholars have noted that “[s]uccessful, healthy law students and lawyers are resilient; . . . they respond positively to challenges . . . . When the inevitable failures and setbacks happen, legal professionals need to take things in their stride and bounce right back.”<sup>100</sup>

Unfortunately, “research reveals that lawyers as a population tend to be quite low in the trait . . . many lawyers score in the 30th percentile or lower, revealing thin-skinned tendencies, taking criticism personally, and being overly defensive and resistant to feedback.”<sup>101</sup> This is clearly problematic, as over the course of any legal career, “resiliency will be challenged,” and when it is, “believing outcomes are malleable helps handle failure and challenges.”<sup>102</sup> However, all is not lost: “studies from other fields suggest that mindsets can be positively changed through curricular and organizational interventions.”<sup>103</sup> As with any skill, resilience is strengthened through practice.<sup>104</sup> Self-assessment is an opportunity to build

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not resilient.”).

98. Shapcott et al., *supra* note 31, at 4.

99. Yeager & Dweck, *supra* note 96, at 303; *see also* Austin, *supra* note 58, at 682 (“High levels of grit, the capacity to persevere while pursuing long-term goals, predict retention in elite academic military programs and grades at top universities. Self-discipline is better at predicting long-term academic success than IQ.”).

100. Shapcott et al., *supra* note 31, at 6.

101. Davis-Laack, *supra* note 95.

102. Shapcott et al., *supra* note 31, at 18.

103. *Id.* at 31.

104. *See* Bishop, *supra* note 84, at 1005 (“Like any skill, being resilient in the face of failure, engaging in deliberate and focused effort, and more frequently occupying a growth mindset can be mastered with practice . . . . By teaching them and helping students practice them, law professors can help counteract the deleterious effects of law school . . . . These constructive experiences can prevent failure from derailing students in the future, and

resiliency by helping students reframe poor performance as an opportunity for growth, and giving them ownership in the process of making and implementing a plan to improve.

### C. Self-Assessment as Professional Identity Development

Legal education provides students with the knowledge and skill for decades of ethical, productive, and rewarding practice. As professionals, lawyers “must be able to monitor their own work, learn what they need to learn to handle a case or client matter, and generally be good at self-management.”<sup>105</sup> Unfortunately, law schools often “fail to train students to be expert learners even though lawyers will be constantly learning while practicing law.”<sup>106</sup> Building in the structure of self-assessment in law school is the scaffolding upon which our students will build the practice of lifelong learning and self-management in their careers. Without law professors present to help them assess their preparedness to take on cases, what went wrong (and right) during trial, and whether they are meeting the profession’s ethical standards, recent graduates must take ownership of their performance. Rather than stopping with a JD in hand, “[l]egal education is necessarily continuous over a lawyer’s career, so the lawyer must be equipped to learn autonomously.”<sup>107</sup>

For practicing lawyers, “self-awareness and self-development are concomitant responsibilities.”<sup>108</sup> Some have gone so far as to say that because “the practice of law requires lifelong learning . . . using an extensive array of strategies to teach our students how to teach themselves may be more

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allow them to consider failure not as an unpleasant experience they must endure, but instead as a valuable opportunity for growth.”).

105. Gantt & Madison, *supra* note 25, at 514-15.

106. Niedwiecki, *supra* note 18, at 151.

107. Jay Feinman & Marc Feldman, *Pedagogy and Politics*, 73 GEO. L.J. 875, 894 (1985), *quoted in* Montiel, *supra* note 54, at 258; *See also* Gantt & Madison, *supra* note 25, at 509 (“[L]aw is a profession in which lawyers need to be self-directed learners over the course of their careers . . . . Most new associates would not last long in a firm if, when asked to produce a research memorandum, the associate had not developed the self-directed skills to research and analyze the relevant issues.”).

108. Kiser, *supra* note 33.

important than teaching doctrine.”<sup>109</sup> Specifically, teaching students metacognition and self-regulation is “important because a major function of education is the development of life-long learning skills.”<sup>110</sup>

The Foundations for Practice survey, conducted by the Institute for the Advancement of the American Legal System, sought answers from more than 24,000 lawyers in an effort “to clarify the legal skills, professional competencies, and characteristics that make lawyers successful.”<sup>111</sup> Many of the traits deemed “necessary” for practicing attorneys reflect the importance of metacognition generally and self-assessment specifically. Within the category of Professional Development, over 50% of respondents labeled “Possess self-awareness (Strengths, weaknesses, boundaries, preferences, sphere of control)” as being “Necessary in the Short Term” (meaning as soon as the student graduates), and 40.6% more deemed the skill “Must be Acquired.”<sup>112</sup>

The ABA has also endorsed various aspects of metacognition as critical to competence and professionalism.<sup>113</sup> The 2017-2018 ABA Standards for Legal Education include the development of “[o]ther professional skills”<sup>114</sup> which include “self-evaluation.”<sup>115</sup> ABA Model Rules of Professional Conduct addressing the duty

109. Bloom, *supra* note 35, at 118.

110. Zimmerman, *supra* note 19, at 66; *see also* Bloom, *supra* note 35 at 118-19 (“Teaching students to judge how well they have understood and learned the materials they have studied ensures that they can effectively regulate their learning and become expert learners.”).

111. Alli Gerkman & Logan Cornett, *Foundations for Practice: The Whole Lawyer and the Character Quotient*, INST. FOR THE ADVANCEMENT OF THE AM. LEGAL SYS. (July 26, 2016), <https://iaals.du.edu/publications/foundations-practice-whole-lawyer-and-character-quotient>.

112. ALLI GERKMAN & LOGAN CORNETT, INST. FOR THE ADVANCEMENT OF THE AM. LEGAL SYS., FOUNDATIONS FOR PRACTICE: THE WHOLE LAWYER AND THE CHARACTER QUOTIENT 14 (2016), [https://iaals.du.edu/sites/default/files/documents/publications/foundations\\_for\\_practice\\_whole\\_lawyer\\_character\\_quotient.pdf](https://iaals.du.edu/sites/default/files/documents/publications/foundations_for_practice_whole_lawyer_character_quotient.pdf).

113. *See generally* STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS 2016-2017 (AM. BAR ASS'N 2016), [https://www.americanbar.org/content/dam/aba/publications/misc/legal\\_education/Standards/2016\\_2017\\_aba\\_standards\\_and\\_rules\\_of\\_procedure.authcheckdam.pdf](https://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Standards/2016_2017_aba_standards_and_rules_of_procedure.authcheckdam.pdf).

114. R. Lisle Baker, *Designing a Positive Psychology Course for Lawyers*, 51 SUFFOLK U. L. REV. 207, 211 (2016) (citing *id.* ch. 2, standard 302).

115. *Id.*

of competence require that attorneys “continually engage in self-evaluation.”<sup>116</sup> Further, the responsibility to engage continuously in self-evaluation is reflected in the fundamental values of the profession as outlined by the ABA Section of Legal Education and Admissions to the Bar, requiring lawyers to remain “constantly alert to the existence of problems that may impede or impair the lawyers ability to provide competent representation.”<sup>117</sup> The Crampton Report similarly concluded that an “indispensable trait of the truly competent lawyer, at whatever stage of career development, is that of knowing the extent and limits of his competence: what he can do and what requires the assistance of others.”<sup>118</sup>

The achievement and maintenance of these fundamental values require an “exceptionally high level of self-awareness” including “the capacity to replicate the effective aspects of their professional performance and prevent a repetition of ineffective aspects by learning and adopting specific practices.”<sup>119</sup> In order to replicate the successful and avoid repeating mistakes, “attorneys must regularly evaluate their own performance, assessing its quality, the appropriateness of their reactions to unexpected events, and the accuracy of their assessment of ‘the likely perspectives, concerns and reactions of any individuals with whom one interacted.’”<sup>120</sup>

Whereas a traditional law firm model may have previously provided mentorship structures to assist in the development of these skills, the ability to self-assess without the supervision of

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116. KISER, *supra* note 33, at 268 (citing ABA Model Rules of Prof'l Conduct R 1.1 and 1.16).

117. *Id.* at 42 (citing American Bar Association Section of Legal Education and Admission to the Bar, Legal education and professional development – An educational continuum).

118. Roger C. Cramton, *Lawyer Competence and the Law Schools*, 4 U. ARK. LITTLE ROCK L. REV 1, at 8 (1981); American Bar Association Task Force on Lawyer Competency: The Role of the Law Schools, Report and Recommendations of the Task Force on Lawyer Competency: the Role of the Law Schools 8 (American Bar Association, Section of Legal Education and Admissions to the Bar, 1978).

119. *Id.*

120. RANDALL KISER, *SOFT SKILLS FOR THE EFFECTIVE LAWYER* 42 (2017) (citing ABA Section of Legal Education and Admissions to the Bar, Legal education and professional development – an educational continuum. Chicago: American Bar Association).

professors or senior partners is particularly important given the “increasing number of students entering solo practice directly out of law school.”<sup>121</sup> Employers have repeatedly stated that these practical skills—including “the ability to be a self-starter”—are increasingly important.<sup>122</sup> Unfortunately, however, while “71 percent of 3L law students believe they possess sufficient practice skills . . . only 23 percent of practicing attorneys who work at companies that hire recent law school graduates believe recent law school graduates possess sufficient practice skills.”<sup>123</sup> Informal feedback from employers attests not only to the insufficient skill of graduates, but also to graduates’ inability to “know when they don’t know,” disappointing supervising attorneys who “want lawyers who recognize when they have not learned something they need to know.”<sup>124</sup>

The legal field is not alone in valuing these skills in recent graduates: other professional schools, including medicine, have begun discussing the importance of “the learner’s ability to self-monitor.”<sup>125</sup> Leading scholars in legal education and professional identity formation have also noted the role of self-assessment in career satisfaction and success: “To find

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121. Barbara Glesner Fines, *An Institutional Culture of Assessment for Student Learning*, in BUILDING ON BEST PRACTICES: TRANSFORMING LEGAL EDUCATION IN A CHANGING WORLD 415 (Deborah Maranville et al. eds., 2015).

122. Hill, *supra* note 18, at 487-88.

123. 2014 State of the Legal Field Survey, BARBRI, <https://www.thebarbrigroup.com/2014-state-of-the-legal-field-survey/> (last visited Oct. 24, 2019 7:03 PM).

124. Schwartz, *supra* note 7, at 472 (“For example, two lawyers who used to train new lawyers for a large, prestigious, national law firm have told me that a crucial skill new lawyers need is the ability to ‘know when they don’t know.’ In other words, they want lawyers who recognize when they have not learned something they need to know; such self-monitoring is, as I argue above, a crucial aspect of self-regulated learning.”).

125. Lasso, *supra* note 17, at 78 n.27 (quoting Ronald M. Epstein & Edward M. Hundert, *Defining and Assessing Professional Competence*, 287(2) JAMA 226, 231 (2002)); see also Samuel C. Karpen, *The Social Psychology of Biased Self-Assessment*, 82 AM. J. OF PHARMACEUTICAL EDUC. 441, 441 (2018) (“Unbiased self-knowledge is critical for professionals who routinely make life and health altering decisions. Indeed, Standard 4.1 of the Accreditation Council for Pharmacy Education Standards 2016 and Domain 4 of the Center for the Advancement of Pharmacy Education (CAPE) outcomes addresses it directly: The graduate is able to examine and reflect on personal, knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal growth.”).

meaningful employment, students need to know where they will find meaning. The challenges for law students to obtain work that aligns with their values requires, among other things: (1) self-awareness, (2) goal-setting, (3) developing strategies, and (4) initiative.”<sup>126</sup> In the quest to help students find and create fulfilling careers, “[l]aw schools do students no favors by allowing them to remain passive in law school, by not requiring them to take the initiative in their professional development, and by failing to challenge them to exercise their own self-management muscles.”<sup>127</sup> Incorporating self-assessment into legal education prepares students to be more attractive to employers, more responsible to the feedback of clients and judges, and more adept at lifelong learning necessary for a successful legal career.

#### D. Self-Assessment as Intrinsic Motivation and Self-Efficacy

Another lens through which to examine the lack of connection between a student’s actions and their expected outcome is a discussion of self-efficacy: “the belief in your own ability to complete tasks and achieve goals.”<sup>128</sup> Self-efficacy is important in the academic context because, “[p]ut simply, if you believe you can do something—you will be more likely to be able to do it. Studies have shown students with high self-efficacy perform better academically than those with low self-efficacy.”<sup>129</sup> Unfortunately, while many current law students are “supremely self-confident and brimming with high self-esteem, many suffer from low self-efficacy,” meaning they fail to “exert a sufficient level of effort and persistence in any given task.”<sup>130</sup> Self-assessment activities increase self-efficacy by introducing a growth mindset and refocusing the student on concrete actions they can take to improve their studying and exam performance.

When students have a strong sense of self-efficacy and an

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126. Gantt & Madison, *supra* note 25, at 504.

127. *Id.* at 515.

128. McGrath, *supra* note 63, at 166.

129. *Id.*

130. Jason S. Palmer, “*The Millennials are Coming!*”: *Improving Self-Efficacy in Law Students through Universal Design in Learning*, 63 CLEV. ST. L. REV. 675, 676 (2015).

internal locus of control, they possess confidence in their ability to influence the outcome of their academic efforts, rather than placing blame and control on “external forces, such as the actions of others, institutional requirements, or cultural conditions.”<sup>131</sup> As a result, “students with high perceived academic control achieve higher academic performance, including better grades and higher GPAs.”<sup>132</sup>

Indeed, according to some, “the hallmark of whether metacognition has occurred is when there has been ‘transfer of control from another individual to the learner himself or herself.’”<sup>133</sup> Strengthened self-efficacy through self-assessment is a means of transferring student responsibility for learning to an internal locus of control. Assisting students in taking ownership and control of their education is an explicit aim of many academic support programs.<sup>134</sup> This is a marker of growth mindset.<sup>135</sup>

Unfortunately, however, law students are often inadvertently steered away from self-efficacy as a result of legal education’s de-emphasis on internally based motivation. “[D]ominant beliefs and practices in legal education thwart

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131. Austin, *supra* note 58, at 678.

132. *Id.*

133. Boyle *supra* note 12, at 8 (quoting James R. Gavelek & Taffy E. Raphael, *Metacognition, Instruction, and the Role of Questioning Activities*, in METACOGNITION, COGNITION, AND HUMAN PERFORMANCE: INSTRUCTIONAL PRACTICES 103, 111 (D. Forrest-Pressley, G. MacKinnon, & T.G. Waller eds., 1985)).

134. Louis N. Schulze, Jr., *Alternative Justifications for Law School Academic Support Programs: Self-Determination Theory, Autonomy Support, and Humanizing the Law School*, 5 CHARLESTON L. REV. 270, 282-83 (2011) (“This approach plays into the notion of autonomy support because it posits the student as the party ultimately responsible for decision making in the learning process”). Schulze surveyed students at the law school where he teaches and found that students who participated in ASP showed “higher levels of perceived autonomy support, a greater degree of perceived self-determination, and a higher likelihood of perceiving our law school as human.” *Id.* at 330-31.

135. Austin, *supra* note 58, at 677 (“Students with a growth mindset take responsibility for their motivation and take charge of their learning.”); Bloom, *supra* note 35 at 117 (“Self-regulated learners take responsibility for their own learning by using metacognition to guide their studying choices. This entails approaching each learning task by first identifying the precise learning goal, then developing strategies for engaging in and monitoring understanding until the task is successfully completed. Self-regulated learners actively construct understanding instead of passively receiving knowledge.”).

natural human needs...internally based motivation.”<sup>136</sup> Specifically, a focus on external rewards—including grades, standardized test scores, and GPA—“extinguishes intrinsic initiative,” and turns learning “from an inherently satisfying experience into a transaction where product is valued over process.”<sup>137</sup> This transactional quality of competitive education “weakens intrinsic motivation, and the cost of rewarding only the students at the top is the unceasing demotivation of all other students.”<sup>138</sup> As a result, “the law school experience [is] associated with troubling increases in extrinsic values and declines in self-determined motivation.”<sup>139</sup>

This has broad reaching implications: in a study of subjective well-being, motivation, and values occurring over the law student’s career, researchers found a correlation between a decrease in subjective well-being and a decrease in intrinsic motivation.<sup>140</sup> They concluded that “‘why’ a person acts — whether he perceives his behavior as motivated by his own interests, values, ad beliefs, or whether he instead perceives that external or self-alien factors control his behavior—has significant consequences for his/her satisfaction and performance.”<sup>141</sup> While it is beyond the scope of this article, the potential for self-assessment activities to assist in reorienting law students to their intrinsic motivation is interesting and promising. Perhaps an increase in self-assessment, in addition to its academic benefits, may also be part of the broader puzzle of aiding students in staying intrinsically motivated and aligned with their own values and goals in law school and beyond.

#### IV. Exam Wrappers: A Self-Assessment Tool with Promise

There are a variety of ways to incorporate metacognitive skills and self-assessment into the law school classroom, and

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136. Kennon Sheldon & Lawrence S. Krieger, *Does Legal Education Have Undermining Effects on Law Students? Evaluating Changes in Motivation, Values, and Well-Being*, 22 BEHAV. SCI. & L. 261, 263 (2004).

137. Austin, *supra* note 58, at 688.

138. *Id.*

139. Sheldon & Krieger, *supra* note 136, at 283.

140. *Id.* at 264.

141. *Id.*



many law professors currently use at least one of them. Initially developed for use in undergraduate math and science courses, exam wrappers are one tool for bringing together a number of complementary aims, including encouraging students' knowledge of their own learning patterns; deepening professor understanding around the way students study and learn; increasing the number of assessments and amount of feedback students receive; and strengthening student involvement in and engagement with learning.

#### A. History and Purpose

While post-exam reflection tools exist in many education settings,<sup>142</sup> the "exam wrapper" was developed by Professor Marsha Lovett.<sup>143</sup> Lovett describes exam wrappers as "structured reflection activities that prompt students to practice key metacognitive skills after they get back their graded exams."<sup>144</sup> Lovett developed the idea in response to "laments" from professors across math and sciences departments about students' declining exam performance.<sup>145</sup> After speaking with professors and students, and looking for changes or trends that would explain what the professors described as a downward trend in both in-class and exam performance across the years, Lovett's investigation "revealed three noteworthy clues":

[1] [M]ore students than usual were *failing to exhibit good habits* (e.g. attending lectures, submitting homework on time, visiting office hours), a pattern that did not change *even after they performed poorly on multiple exams*.

[2] . . . students identified *a fairly small repertoire*

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142. It is worth noting that one well-known post-exam questionnaire was introduced by Professor Michelle V. Achacoso in 2004. See Michelle Achacoso, *Post-Test Analysis: A Tool for Developing Students' Metacognitive Awareness and Self-Regulation*, NEW DIRECTIONS FOR TEACHING & LEARNING, Winter 2004, at 115, 115.

143. Prof. Lovett is a Psychology Professor and Director of the Eberly Center Teaching Excellence and Educational Innovation at Carnegie Mellon University. Lovett, *supra* note 22, at 28.

144. *Id.* at 18.

145. *Id.*

*of rather limited study strategies* (e.g. rereading the textbook. . .) and this repertoire *did not grow or change* much by the semester's end.

[3] . . . across the semester . . . [students'] belief in 'innate' views of learning (e.g., learning is quick and easy; some people are born better learners than others) increased slightly.<sup>146</sup>

Interestingly, and consistent with the observations of others in higher education, Lovett also found that despite their poor study skills these same students concurrently maintained very high expectations for their performance.<sup>147</sup> Taken together, these findings painted a picture of college students who had previously been successful in a high school setting without developing effective strategies for learning, and who assumed this same approach would lead to success in college, despite evidence to the contrary.<sup>148</sup> As a result, "these students continued to use their ineffective strategies even after poor performance," leading Lovett to conclude "the current students' metacognitive skills were less well developed than in years past."<sup>149</sup>

Lovett's findings resonated with professors, who were eager to intervene and reverse this trend, but were wary of taking time away from the content of the courses.<sup>150</sup> Lovett decided to focus her efforts on increasing student "awareness that they were not learning or performing well with their current strategies."<sup>151</sup> Lovett pinpointed her goal as helping students self-assess their own learning and make changes to their study strategies accordingly—and to develop a tool that had the ability to be implemented across a wide variety of courses.<sup>152</sup> The exam wrapper was the result of this research. In order to prompt student development of metacognitive skills following an exam, wrappers ask students three general questions: "(a) how they

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146. *Id.* at 29 (emphasis added).

147. *Id.*

148. *Id.*

149. Lovett, *supra* note 22, at 29.

150. *Id.* at 30.

151. *Id.*

152. *Id.*

prepared for exams, (b) what kinds of errors they made on the exam, and (c) what they might do differently to prepare for the next exam.”<sup>153</sup>

### B. A Review of the Scholarship

Since their introduction, exam wrappers have been the subject of widespread discussion in a variety of fields<sup>154</sup> and educational institutions. However, the number of in-depth studies regarding the efficacy of wrappers is somewhat limited, and is generally confined to undergraduate classrooms. Nonetheless, these studies provide some useful feedback on how wrappers can best be used in the classroom to increase students' post-exam metacognitive skills, study methods, and exam performance.

The following studies were conducted by specialists in their divergent fields and, as such, had different aims: while some of the studies sought to measure a quantitative improvement in exam scores, others sought to measure the less tangible improvement in students' metacognitive, exam-taking, and study skills. Following is a brief chronological summary of recent studies implementing exam wrappers in the classroom.<sup>155</sup>

#### 1. Undergraduate Introductory Math and Science Courses<sup>156</sup>

To test the tool she developed, Lovett created course-specific exam wrappers for introductory Biology, Calculus, Chemistry, and Physics classes taught at Carnegie Mellon.<sup>157</sup> All wrappers had the same three core question types,<sup>158</sup> and used a common language for the metacognitive skills of self-assessment,

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153. *Id.*

154. See generally EDWIN GRECO, DEVELOPING, DEPLOYING, AND ANALYZING EXAM WRAPPERS IN A LARGE INTRODUCTORY PHYSICS CLASS (2012); Lolita Paff, *Groundhog Day*, INT'L SOC'Y FOR EXPLORING TEACHING AND LEARNING (Nov. 20, 2018), <http://www.isetl.org/groundhog-day/>.

155. Where available, the exam wrappers referenced in the studies are included in the Appendix.

156. Lovett, *supra* note 22.

157. *Id.*

158. *Id.*

monitoring, and adjustment.<sup>159</sup> Administration of the wrappers varied between professors.<sup>160</sup> At the end of the semester, Lovett administered an “open-ended survey asking students what they learned about their learning during the semester and what they changed as a result.”<sup>161</sup> Across all four courses where wrappers were used, the majority of students reported having made specific changes in their approach to studying, and recognized the value of having made these changes.<sup>162</sup>

Notably, Lovett observed that students who were taking more than one class where exam wrappers were used reported a larger positive change in their ratings of metacognitive skills, supporting the idea that “when students experience exam wrappers in multiple contexts, they are more likely to see the value of the metacognitive skills promoted . . . .”<sup>163</sup> Lovett acknowledged that future research into the efficacy of exam wrappers would ideally incorporate students’ actual grades on exams and other “direct performance measures.”<sup>164</sup>

## 2. Undergraduate Intermediate Spanish Course<sup>165</sup>

Prof. David Thompson conducted research on the use of exam wrappers in an intermediate Spanish class in an attempt to improve both students’ study strategies and their understanding of course material.<sup>166</sup> Thompson incorporated exam wrappers into the same Spanish 201 courses. The wrappers “required students to reflect on their performance before and after seeing their graded test,” as well as to make “a list of changes to implement in preparation for the next test.”<sup>167</sup>

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159. *Id.* at 30-31.

160. Some professors handed out the wrappers in small sections, some asked for the wrappers to be completed in class, and others allowed for completion online outside of class. *Id.* at 31.

161. *Id.* at 33.

162. Lovett, *supra* note 22, at 33-34.

163. *Id.* at 35.

164. *Id.* at 38.

165. See generally David R. Thompson, *Promoting Metacognitive Skills in Intermediate Spanish: Report of a Classroom Research Project*, 45 FOREIGN LANGUAGE ANNALS 447 (2012); for an image of the wrapper, see *id.* at 460-62.

166. See generally *id.*

167. *Id.* at 453 (“The first four questions, completed just prior to receiving

Thomson “collected and made copies of the wrappers, then returned them to the students several days later, reminding them to consider what they planned to do differently or the same before the upcoming test.”<sup>168</sup> Two findings emerged from the data: one related to self-monitoring practices and another to students’ ability to accurately predict test performance.<sup>169</sup>

As to the first finding, data regarding the impact of exam wrappers on students self-monitoring was inconclusive.<sup>170</sup> However, Thompson found an improvement in the ability of students to accurately predict their test scores using exam wrappers.<sup>171</sup> Consistent with Dunning-Kruger’s proposition regarding miscalibration, on the first exam wrappers they completed, Thompson’s students with the highest grades underestimated their performance, while students with the lowest test scores “significantly overestimated their performance.”<sup>172</sup> However, data from the second use of the exam wrapper showed “that students improved their ability to predict their test results, a skill shown to help students connect their study efforts with levels of actual achievement.”<sup>173</sup> Thompson found this promising particularly because students performing at the lowest levels “stand to benefit most from metacognitive skills training aimed at helping them to improve understanding

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their graded test, asked students to report the time they spent preparing for the test, their methods of preparation, and their predicted test grade. After reviewing their graded test, students completed three additional reflection questions, including a categorization of their mistakes.”). Students in two sections took six exams throughout the term. One group did two exam wrappers (after Tests 2 and 4), both during class time, with the second one including an additional five minutes talking together about study strategy. Thompson used the Motivated Strategies for Learning Questionnaire (MLSQ) in both sections to measure students’ self-monitoring practices twice throughout the semester.

168. *Id.*

169. *Id.*

170. Thompson, *supra* note 165, at 454. Professor Thompson did note the differences between class skills, having found the control group to generally be a stronger group of students. Thompson found that while “[b]oth class sections demonstrated substantially greater change in self-monitoring from students in the prior year . . . the group receiving exam wrappers did not show more growth in self-monitoring practices than the group who did not complete wrappers.” *Id.*

171. *Id.* at 455.

172. *Id.*

173. *Id.*

of what they do and do not know as well as better evaluate the effectiveness of their study strategies.”<sup>174</sup>

Interpreting the results of the studies, Thompson observed that teaching students to pay “attention to self-monitoring practices . . . did not require hours of time or the elimination of large portions of course content.”<sup>175</sup> Even relatively brief reflection activities like exam wrappers or a brief in-class discussion around study strategies “can promote more frequent use of self-monitoring skills with little change to the course structure or schedule.”<sup>176</sup>

Thompson concluded that while data from all inquiries did not show that the exam wrappers were responsible for increased self-monitoring, “they did suggest that explicit approaches to metacognitive skills training are effective and that students who possess stronger metacognitive skills tend to perform better on tests.”<sup>177</sup> He also notes the impact of this work on his own teaching, writing that these inquiries

led to both instructional improvements and a stronger design and method of investigation . . . . The results of this classroom research project were encouraging both in regard to students’ thinking about their learning . . . and to my own ability to improve instruction through systematic study of how students learn in my classes.<sup>178</sup>

### 3. Undergraduate Chemistry Course<sup>179</sup>

Prof. Kelly Butzler deployed exam wrappers in an undergraduate Chemistry course as a means of investigating whether the implementation of self-regulation tools (such as wrappers) in a “flipped classroom” would help support students

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174. *Id.* at 456.

175. Thompson, *supra* note 165, at 457.

176. *Id.* at 457.

177. *Id.* at 457-58.

178. *Id.* at 458.

179. See generally Kelly B. Butzler, *The Synergistic Effects of Self-Regulation Tools and the Flipped Classroom*, 33 COMPUTERS SCHS. 11 (2016). Professor Butzler’s study did not include an image of an exam wrapper.

to develop as self-regulated learners.<sup>180</sup> Butzler chose the specific Chemistry course because of its difficulty, the need for high levels of self-regulated learning (SRL) and problem-solving skills, and because the course was frequently taken during the first year of college where students may not have yet acquired SRL skills.<sup>181</sup> Butzler chose exam wrappers as the self-regulation tool because in addition to building SRL skills they “also provided a medium for the instructor to suggest learning strategies and encouragement.”<sup>182</sup>

Butzler studied the efficacy of exam wrappers in her course over four academic years, with slight variations on course structure.<sup>183</sup> Students were given an exam wrapper when the final exam was returned and were encouraged to “spend time completing the exam wrapper carefully, using it to reflect on their knowledge while reviewing the exam.”<sup>184</sup> Students completed the wrapper outside of class and submitted it to the instructor at the following class. Butzler read the wrappers and provided “learning strategy suggestions” based on the students’ responses; students were also given five extra credit points on the exam if the exam wrapper was completed thoroughly.<sup>185</sup> In analyzing the efficacy of this exercise, Butzler posed two research questions:

What effect does the implementation of self-regulated tools have on student achievement as measured by *overall course grades* reported as percentages in a flipped classroom learning environment?

How do students *perceive the impact* of the self-regulated tools on learning chemistry?”<sup>186</sup>

Butzler reported that most students “loved” the wrappers,

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180. *Id.* at 11-12.

181. *Id.* at 12.

182. *Id.* at 14.

183. *Id.* at 13. See Butzler’s discussion of lecture class, flipped class, and “stealth flip” class. *Id.*

184. Butzler, *supra* note 179, at 14.

185. *Id.* at 17.

186. *Id.* at 14 (emphasis added).

and many “reported that they would have not thought of many of the strategies listed on the exam wrappers to prepare for exams.”<sup>187</sup> However, some students with lower entering skill levels<sup>188</sup> “did not spend quality time reflecting on their learning strategies,” seemingly completing the wrapper only “to get it done and earn five points extra credit.”<sup>189</sup> Butzler notes that it was unfortunate that less skilled students seemingly put minimal effort into the wrapper exercise, given that these were the very students who most needed the guidance.<sup>190</sup> The students who most needed the assistance in growing as active learners struggled with continuing to use passive learning in their pre-class efforts, and they generally lacked “the ability and experience to reflect on performance on both formative and summative assessments.”<sup>191</sup>

Promisingly, many of Butzler’s students indicated that they would continue to use exam wrapper strategies in future classes.<sup>192</sup> In review of the multi-year findings, Butzler concluded that this implementation of SRL strategies “helped to transition students from passive to active learners, while instilling SRL skills.”<sup>193</sup> Student ability to increase learning “occurred when students were guided and supported in active learning by teaching them how to learn using different strategies.”<sup>194</sup>

#### 4. Undergraduate Introductory Food Science and Human Nutrition Course<sup>195</sup>

Four professors (“Gezer-Templeton et al.”) studied the impact of exam wrappers in large introductory food science and human nutrition courses with the aim of “examin[ing] students’

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187. *Id.* at 21.

188. As reflected in their mathematics placement level and high school class rank. *Id.* at 21.

189. *Id.*

190. Butzler, *supra* note 179, at 22.

191. *Id.* at 22.

192. *Id.* at 21.

193. *Id.* at 22-23.

194. *Id.*

195. Gezer-Templeton et al., *supra* note 7. Note that Gezer-Templeton’s study did not include an image of an exam wrapper.



metacognitive skills, evaluat[ing] the correlation between study behaviors and student performance, and assess[ing] student perception of exam wrappers.”<sup>196</sup> Classes were large (approximately 100 students), and the course was one required for the major. Exams were given throughout the semester, and exam wrapper assignments were offered as extra credit in conjunction with the first three exams administered.<sup>197</sup> Students received error sheets outlining the questions they missed with the correct answers, and exam wrappers were uploaded to the course online platform following each exam. If they wished to participate, students had to hand in a hard copy of the exam wrapper within a week of receiving results.

In alignment with Lovett’s proposed structure, three broad questions were asked on each exam wrapper:

1. How did you prepare for the exam?
2. What types of questions on the exam were most challenging for you? Why do you think they were challenging?
3. What changes to your study habits do you plan to make when preparing for the next exam?<sup>198</sup>

Students were also asked “how many hours they spent studying, how far in advance they began studying for the exam, what grade they expected before and right after the exam, and their actual exam score.”<sup>199</sup>

Consistent with previous research, Gezer-Templeton et al found that students with poor exam performance overestimated their scores, while students with higher average exam grades tended to underestimate how well they did.<sup>200</sup> Their findings supported the proposition (echoing Thompson<sup>201</sup>) that repeated use of exam wrappers throughout the semester is important particularly for these students. The percentage of students who said they completed the exam wrapper because they thought it

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196. *Id.* at 28.

197. *Id.* at 30.

198. *Id.*

199. *Id.*

200. *Id.*

201. *See generally* Thompson, *supra* note 165.

might be helpful in preparing for their next exam went up from between 45% and 56% the first time to over 70% the second time.<sup>202</sup> Further, “students reported that one of the motivational factors behind completing the exam wrapper was because the previous exam wrapper helped them improve their score.”<sup>203</sup> This repeated use “helped students appreciate this self-reflection tool as a means to improve not only their study habits, but also their exam scores.”<sup>204</sup>

While the exact role exam wrappers played in exam scores “remains a complex puzzle to be solved,” the authors concluded that students and teachers found exam wrappers “an effective tool . . . to improve self-assessment, goal setting and self-regulation skills, which corresponds to an overall improved metacognitive knowledge.”<sup>205</sup>

##### 5. Undergraduate Introductory Psychology Course<sup>206</sup>

Professors Soicher and Gurung applied an exam wrapper exercise to students enrolled in an undergraduate Introductory Psychology classes.<sup>207</sup> In the course, students used either exam wrappers (adapted from Lovett’s version), or “sham wrappers” (an exercise with no metacognitive instruction, where students were asked simply to report which questions they answered

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202. Gezer-Templeton et al., *supra* note 7, at 34.

203. *Id.*

204. *Id.* at 35.

205. *Id.* at 35-36.

Asking students to reflect on their exam performance has been shown to be an excellent learning tool, as it teaches students metacognitive skills. Our hypothesis was that by asking students to analyze the underlying cause(s) responsible for their exam performance, students would be able to identify which study strategies are effective and which strategies are ineffective. Students would then be able to adapt these study strategies in the future.

*Id.* at 36.

206. See generally Raechel N. Soicher & Regan A. R. Gurung, *Do Exam Wrappers Increase Metacognition and Performance? A Single Course Intervention*, 16 PSYCH. LEARNING & TEACHING 64 (2017).

207. *Id.* at 66 (discussing the fact that five sections of Introductory Psychology are taught at a community college, with total enrollment of 86 students).

incorrectly), or neither.<sup>208</sup> Soicher and Gurung found “an increase in [metacognitive ability] over the course of the semester, regardless of condition.”<sup>209</sup>

They credited this null result to Lovett’s finding that “an increase in metacognition ratings only improved for students using exam wrappers in more than one course during a semester,” concluding that “[i]t may be the case that this type of metacognitive intervention needs to be adopted across departments where students are likely to take more than one course using it or the exam wrapper needs to be more engaging.”<sup>210</sup> Further, Soicher and Gurung note that the “design of the course did not require that all students take the final exam...so this could not be used as a measure of performance.”<sup>211</sup> Were the study to be repeated, Soicher and Gurung suggest inclusion of “the qualitative study behavior data collected on exam wrappers from the students in this study,” i.e. comments from students on whether their study methods or habits changed as a result of the wrapper exercise.

#### 6. Undergraduate Criminology Course<sup>212</sup>

In the most recent empirical study of exam wrappers, Professor Leanne Owen selected a 200-level criminology course as the site of a post-exam intervention for two reasons: first, the course is aimed at either second-semester freshmen or first-semester sophomores, and Owen believed that “by targeting

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208. *Id.* The sham wrappers simply asked the following:

(1) Is your score BETTER than, WORSE than, or ABOUT THE SAME as what you expected to get after taking the exam? (Circle one) (2) How did your score compare to your score on the last exam? BETTER, WORSE, ABOUT THE SAME, I DON'T REMEMBER (circle one). (3) For each question you answered incorrectly, write down the number of the question and the topic the question was related to.

*Id.* at 73.

209. *Id.* at 64.

210. *Id.* at 69.

211. Soicher & Gurung, *supra* note 206, at 69.

212. See generally Leanne R. Owen, *The Exam Autopsy: An Integrated Post-Exam Assessment Model*, 13 INT'L J. FOR SCHOLARSHIP TEACHING & LEARNING 1 (2019). Note that Professor Owen’s study did not include an image of her exam wrapper.

students relatively early in their college career, the seeds might be sown for the development of reflective metacognitive skills that may serve them well as they progress toward the completion of their degree.”<sup>213</sup> Secondly, the course was chosen because it includes “a number of comparatively small-stakes unit exams, rather than simply a midterm and final.”<sup>214</sup>

The study took place over the course of three semesters, with the first semester functioning as a control group. During the second semester, the first exam was administered online, and students could view their results immediately. At the start of the following class, “students were told that this post-exam self-assessment would be taking place and that the objective of the assignment was for them to think critically about their study strategies and to identify opportunities for improvement.”<sup>215</sup> “Class time was set aside for students to review correct and incorrect answers on the test and to address” a series of questions about their exam preparation and performance in writing.<sup>215</sup>

Students turned in their wrappers, and Owen dedicated fifteen minutes at the start of the next class to discussing “areas of concern . . . identified as common across a majority of the students.”<sup>216</sup> Owen also provided information about the

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213. *Id.* at 3.

214. *Id.*

215. *Id.* at 3-4. The questions posed:

How did your actual grade on this exam compare with the grade you expected? How do you explain the difference, if there is any?; How do you feel about your exam grade? Are you surprised, pleased, relieved, disappointed, or what?; How many hours did you spend preparing for this exam? Was this enough time to get the grade you wanted, or should you have spent more time preparing?; How did you spend your time preparing for the exam? (For instance, did you summarize your notes? Did you make and use flash cards? Did you test yourself in some way? Did you study with classmates?); Examine the items on which you lost points and look for patterns. Did you misread the questions? Were you careless?; Did you run out of time? Did you think that you wouldn't need to study as much as you would for an in-class exam since you could use your notes?; Set a goal to get a certain percentage correct in the next exam. What study strategies and schedule will enable you to earn that score?

*Id.*

216. *Id.* at 4.

effectiveness (or ineffectiveness) of particular study skills, and encouraged students to seek out further support from various academic resources on campus if needed.<sup>217</sup>

In the third iteration of the course, a more robust “exam autopsy”<sup>218</sup> model was tested.<sup>219</sup> Students again took their first exam online, and viewed the results immediately. At the start of the following class, the exam autopsy process was explained, and Owen “encouraged students to think deeply and honestly about their study strategies and possible opportunities for improvement.”<sup>220</sup> Following the explanation, students took class time to review correct and incorrect answers, and to address wrapper questions in writing.<sup>221</sup> The primary difference in this iteration of the process was that instead of immediately turning in their answers for professor review, “students were paired up with a partner who served as a peer evaluator . . . Specifically, they were asked to consider whether their partner’s assessment was valid, whether their partner’s goals were realistic, and whether there was anything else they felt their partner should consider.”<sup>222</sup> Instead of going over general concerns, Owen asked

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217. Owen, *supra* note 212, at 4.

218. *Id.* “It should be noted that students seemed to appreciate and find humor in the fact that the process was called an ‘exam autopsy.’ The idea that they would be afforded the opportunity to dissect and investigate the root causes of their exam performance from an objective, almost detached position (not unlike that of a detective or coroner, as they described it), was highly appealing. For that reason, the model retains its original name.” *Id.*

219. *Id.*

220. *Id.*

221. See questions cited *supra* note 215.

222. Owen, *supra* note 212, at 4. Specifically, students were asked:

Do you agree with your partner’s assessment of how and why s/he earned a different grade than expected? Why or why not?; Any and all feelings your partner may express about his/her exam grade are valid. What words of wisdom or comfort could you share in light of how s/he feels?; What is your opinion of the time your partner spent studying for this test?; What is your opinion of the methods your partner used in studying for this test?; What is your opinion of your partner’s assessment of the questions s/he got wrong? Do you have another interpretation of or explanation for what might have happened?; What do you think of the goals that your partner has set for him/herself? Are they realistic? What are two additional ideas you could suggest to help him/her achieve those goals?

*Id.*

students to sign up for a brief (five-to-ten-minute) meeting with Owen sometime during the following week.<sup>223</sup>

In reviewing the three semesters, Owen concluded, “the exam autopsy process [deployed in the third semester] did result in statistically significant differences in student performance on the second exam”, and declared it “a useful and significant tool” for promoting SRL and metacognitive reflection.<sup>224</sup> Owen suggests that one possible modification would be to afford students the opportunity to revise and resubmit their work following the autopsy process, shedding light on whether students successfully incorporate the suggestions that have been presented to them.<sup>225</sup>

## 7. Lessons Learned from the Research

The small number of in-depth studies on the efficacy of exam wrappers, as well as the variation around how the studies were administered and the amount and types of data collected, makes it impossible to draw definitive conclusions. However, there is support for the proposition that drawing student attention beyond an exam grade to the development of metacognitive

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223. *Id.* Students received the following instructions for the self-assessment:

Think about your original answers to the self-assessment questions, as well as the feedback that you received from your partner and from me. In a brief paragraph, write down what, if anything has changed in terms of how you prepared for the first test and how you plan to prepare for the next test. Be concrete and specific in describing at least three strategies that you plan to use to study for (or take) the next test. Why do you think those strategies are the most promising for you? What can I do to help support your learning and your preparation for the next exam?

*Id.* at 5.

224. *Id.* at 6–7. Owen also noted that

research needs to be undertaken to examine whether the exam autopsy model . . . is equally effective for different types of tests (i.e., short answer or essay exams, where greater emphasis is placed on critical thinking and writing ability) and, indeed, for different types of assignments (i.e., lab reports, research papers, oral presentations, etc.).

*Id.* at 7.

225. Owen, *supra* note 212, at 7.

skills (namely, helping students realize that their own assessment of their skills and performance are likely misaligned) prompts changes in study and test taking strategies students may otherwise not pursue. Additionally, the research supports Lovett's proposition that such metacognitive skills are most effectively developed where students are new to the educational setting, and when they encounter these skills in more than one class. Exam wrappers and similar self-assessment tools hold similar promise in legal education. Properly adopted, exam wrappers can provide a relatively efficient introduction to metacognition in the law school classroom, helping students improve their self-assessment and study skills, and providing professors with more active students who perform better on final exams.

### V. Bringing the Exam Wrapper to Law School

Many law school professors already do some variety of post-exam review with students, whether it is one-on-one or in a classroom setting. This article suggests exam wrappers as one potential tool to standardize and strengthen law school post-exam reflection, maximizing this crucial moment in student development while taking into account the particular structure and goals of legal education.

#### A. Proposal for Best Practices: Use

Taking into account the studies completed in other educational settings, the unique structure of law school, and the needs of law students, there are six elements to consider when implementing exam wrappers in law schools: (1) use during 1L year; (2) in doctrinal courses; (3) following midterms; (4) administered in class and collected by the professor; (5) returned in a timely manner and discussed; and (6) repeated.<sup>226</sup>

#### 1. Use during 1L Year

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226. See generally SCHWARTZ ET AL., *supra* note 60. The development of any assessment tool would be strengthened by a reading of Schwartz.

To have the most beneficial impact on a student's perceptions of learning, as well as to set the groundwork for the rest of their legal education, introducing law students to exam wrappers in the fall of their 1L year is ideal. Use during a student's first year of law school is most practical with regard to the timing, size of classes, standardization of implementation, and consistency with research on best practices around metacognition. The reasoning Lovett uses to advocate for the use of exam wrappers with college freshman is applicable to new law students: freshman, Lovett notes, are being introduced to a new way of learning as well as a large amount of material.<sup>227</sup> This was a consideration in a number of the exam wrapper studies as well, including for Professors Butzler (Chemistry), Owen (Criminology), and Gezer-Tempelton, et al. (Food Sciences).<sup>228</sup> The same reasoning holds true for 1Ls who often struggle not only with the content of the course, but also the language and structure of the cases assigned and the demands of classroom interactions. The high stakes of the traditional end of the semester exam further exacerbates law students' struggle with and anxiety around new styles of teaching and learning. This emphasis on a single summative assessment can result in an education setting where "students are not encouraged to even consider or test the successfulness of their learning during the semester."<sup>229</sup> As such, "encouraging or teaching students to learn about their own metacognition would be an excellent addition to the first year curriculum."<sup>230</sup>

Not only are students new to an educational setting in particular need of these skills, but they are also in an ideal position to absorb the lessons. Freshmen, for example, "stand to gain particular benefits" from the exercise of wrappers because they "comprise a high risk group . . . expected to show greater independence and self-management in their learning, at the same time they are encountering new difficulties associated with" both the transition to college and the introduction of new

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227. Lovett, *supra* note 22.

228. See generally Butzler, *supra* note 179; Owen, *supra* note 212; Gezer-Templeton et al., *supra* note 7.

229. George, *supra* note 42, at 176.

230. *Id.*



material.<sup>231</sup> Law students similarly strive to absorb new content, as well as new styles of in- and out-of-class learning. As a result, just as freshmen can be “especially sensitive to exam results, leading them to develop counterproductive habits as a response to adverse outcomes,”<sup>232</sup> law students generally receive minimal formal feedback during their 1L year and, as a result, feel great anxiety around exam performance. Despite (or, perhaps, because of) these particular stresses, working with students new to college or law school provides great opportunity: “if instructors enable these students to use exams to foster their metacognition, they can establish a culture of self-regulated learning that will carry forward throughout their time in college,”<sup>233</sup> or law school. Professors have found formative assessments especially important during the first year of law school when students need time to adjust to a different and more demanding environment, and a dramatically different approach to learning.<sup>234</sup> Additionally, early introduction of metacognitive tools such as exam wrappers is likely to receive better student buy-in among students transitioning to a new learning environment.<sup>235</sup>

From a practical level, the use of exam wrappers in 1L classes also allows for the greatest standardization, as all 1Ls are required to take the same courses. These 1L courses are also often the largest classes a student will take during their legal education, allowing for the integration of exam wrappers to impact the most students at once. In sum, use of wrappers with 1Ls as early as the fall, is a unique opportunity: 1L students may be more open to the idea; introduction during the fall will give them the greatest number of opportunities to employ changes to their learning, studying, and exam taking techniques; and the

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231. Lovett, *supra* note 22, at 19.

232. *Id.* at 19.

233. *Id.*

234. Lasso, *supra* note 17, at 88.

235. Colleen Flaherty, *Student-Centered Learning and Student Buy-In*, INSIDE HIGHER EDUC. (Jan. 22, 2019), <https://www.insidehighered.com/news/2019/01/22/study-student-resistance-curriculum-innovation-decreases-over-time-it-becomes>. In researching students’ response to more active, student-centered learning, one study found that “first year students tended to accept it, while professors who tried it with their juniors and seniors found “it was much harder to get past their resistance.” *Id.*

greatest number of students will be introduced to metacognitive and active-learning ideas through their required 1L courses.

## 2. Use in Podium/Doctrinal Courses

Many law school academic support programs already use self-assessment tools similar to exam wrappers, often on a one-on-one basis with students. Additionally, clinical and legal writing professors are particularly adept at incorporating these tools and emphasizing the growth of self-assessment skills. However, there is a particular role for self-assessment tools like the exam wrapper in doctrinal courses, particularly because metacognition “is most effectively taught in connection to domain-specific content, and not as a general study skill.”<sup>236</sup> Within metacognition more broadly, self-assessment “forces students to consider metacognition as it applies to a particular class and learning process, rather than on a general level.”<sup>237</sup>

Similarly, when students are taught self-regulated learning practices in the context of one of their regular courses, they are more likely “to make such practices a permanent part of their learning process.”<sup>238</sup> Academic support pioneer Professor Paula Lustbader lends further credence to this stance, summarizing multiple studies showing that “teaching [skills such as briefing and test taking] in the context of a substantive course, where the student is applying the skills they are learning to what they are learning, enhances not only the learning, but also increases the transferability of those new skills to new situations.”<sup>239</sup>

Introducing metacognitive skills to students in doctrinal classes may also help counteract the stigma of academic support as only for students who receive poor grades or are labeled “at risk.” Further, the antiquated but still real perception of the prestige of doctrinal “podium” professors endorsing these ideas may hold more sway with students. This also creates new opportunities for partnerships between “podium” professors and those working in academic support. For example, the two

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236. KAPLAN ET AL., *supra* note 50.

237. George, *supra* note 42, at 188-89.

238. See SCHWARTZ ET AL., *supra* note 60

239. Marlow, *supra* note 29, at 499; *see also* Lustbader, *supra* note 53, at 854.

colleagues could work together to develop an exam wrapper tailored to the class' needs. Following the doctrinal professor's group feedback in class, the professor could direct students to seek out academic support for more detailed one-on-one meetings regarding implementing the individual changes to student study methods. Such partnerships would foster dynamic conversations between doctrinal and academic support colleagues, assuage professor concerns regarding the time and expertise needed to develop wrappers, and introduce more students to the critical services academic support programs offer.

### 3. Use following Midterms

Using exam wrappers in conjunction with midterms is effective both because it constitutes early-intervention formative assessment, and also because it can reshape student perceptions of ability at a crucial moment, allowing time for corrective action. Formative assessment is a critical part of any effective and comprehensive assessment program because it provides both feedback and the opportunity to implement the feedback in future assessment settings. While formative assessments certainly can be graded,<sup>240</sup> their primary goal is not evaluative but rather "to aid learning, . . . help teachers determine whether students are learning, and help students develop learning skills."<sup>241</sup> This is consistent with assessment best practices in legal education, namely direction to "[u]se multiple assessments," "[p]rovide students with opportunities to practice meeting criteria before they are graded," and "[s]how students how their work met grading criteria [in order to] make the grading process also a learning process."<sup>242</sup> The lack of a midterm, and subsequent loss of opportunity for students to

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240. Corrada, *supra* note 6, at 320 (In fact, some professors have argued that midterms must be given a certain amount of "weight" in order to prompt the students to put in the work that will most benefit their performance: Professors have noted that when midterms are given "as long as it is not weighted too low (below 15 percent), students have an incentive to pull together a synthesis or outline of the class at the midpoint, yielding better learning during the second half of the class.").

241. Lasso, *supra* note 17, at 77.

242. SCHWARTZ ET AL., *supra* note 60, at 175-79.

practice how they will be tested, is at the root of many critiques of the traditional end-of-semester law school assessment structure.<sup>243</sup> The midterm exam presents the ideal opportunity for formative learning and assessment in the law school setting, and thus an ideal opportunity to use wrappers for post-exam assessment. Professors who have studied wrappers in their classrooms echo these considerations: Owen (Criminology), for example, chose “a course with a gap of three or four weeks between each exam” because this structure “affords students enough time to complete the post-exam assessment process.”<sup>244</sup>

In addition to constituting early intervention formative assessment, linking exam wrappers to midterms is also effective because it can interrupt a potentially critical moment of self-perception among law students. Law school exams “loom large in creating self-perceptions about abilities, interests, and potential for success.”<sup>245</sup> By reframing midterms as an opportunity to not only evaluate student knowledge of course content, but also to support students in developing improved study skills and an understanding of their own learning, students can be prevented from adopting fixed mindsets about their self-worth and intelligence on the basis of a single exam performance.

#### 4. Administered in Class and Collected by the Professor

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243. Corrada, *supra* note 6, at 319; Rogelio A. Lasso, *Is Our Students Learning? Using Assessments to Measure and Improve Law School Learning and Performance*, 15 BARRY L. REV. 75, 82 (2010) (“There is much to critique about the form and content of the end-of-the semester final exam. The worst feature of the current assessment practice, however, is that “students are not provided a chance to practice what will actually be tested, [and] do not get feedback during the course of the semester to gauge how they might do when the day of reckoning arrives.”); *see also* Steven Friedland, *A Critical Inquiry into the Traditional Uses of Law School Evaluation*, 23 PACE L. REV. 147, 153 (2002) (quoting Douglas A. Henderson, *Uncivil Procedure: Ranking Law Students Among Their Peers*, 27 U. MICH. J.L. REF. 399, 403 (1994)). Professor Friedland notes that one of the “deficiencies” of traditional law school examinations is “the absence of the opportunity for reflection,” *id.* at 189, in contrast to the findings of learning theory that “periodic assessment combined with reflection . . . provides essential feedback for the learning process.” *Id.* at 189 n.175 (quoting Henderson, *supra*, at 412).

244. Owen, *supra* note 212, at 3.

245. Friedland, *supra* note 243, at 153.

While exam wrappers are primarily intended to increase and center the student's role in assessment, it is important that professors convey their investment in the process. This is done most effectively when professors explain the purpose of the exercise, administer it in class, and collect the completed wrappers. While using class time to complete wrappers helps emphasize the importance of the exercise and its place within the work of the class, it does not need to occupy a large portion of class. In fact, Lovett emphasizes that wrappers are valuable because they ideally "impinge minimally on class time" and can "be easily completed by students within the time they are willing to invest."<sup>246</sup> Among the studies, exam wrappers were administered in a variety of ways.<sup>247</sup>

Regardless of exactly how they are introduced, professors should "be sure to identify and articulate the specific metacognitive skills [they] want students to learn" through the exercise.<sup>248</sup> For example, Owen (Criminology) introduced a wrapper activity during the class immediately following the exam, telling students "that the objective of the assignment was for them to think critically about their study strategies and to identify opportunities for improvement."<sup>249</sup> Owen used class time to not only review answers on the test but also to address a series of questions about exam preparation.<sup>250</sup>

It is also crucial that wrappers be collected by professors, in order for the professors to review the responses and gain insight into student learning. Prof. Thomson (Spanish) accomplished these goals, for example, by collecting and making copies of the wrappers and returning them to students "several days later, reminding them to consider what they planned to do differently

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246. Lovett, *supra* note 22, at 25.

247. Gezer-Templeton et al., *supra* note 7, at 30. Gezer-Templeton et al. uploaded wrappers to the course online platform, and required students to hand in a hard copy of the exam wrapper within a week of receiving their test results. Similarly, Butzler (Chemistry) handed out exam wrappers when the exam was returned, and encouraged students to spend time outside of class "completing the exam wrapper carefully, using it to reflect on their knowledge while reviewing the exam" before submitting it to the instructor at the following class. Butzler, *supra* note 179, at 14.

248. Gezer-Templeton et al., *supra* note 7, at 21.

249. Owen, *supra* note 212, at 3.

250. *Id.*

or the same before the upcoming test.”<sup>251</sup> By administering the wrappers during class and collecting them once completed, professors convey to students that their self-reflection work is being reviewed, the professor is accompanying them in the learning process, and that the feedback the class receives will be in direct response to this feedback.

##### 5. Returned in a Timely Manner and Briefly Discussed

In addition to collecting the wrappers, returning them to students with a brief discussion should occur in a timely manner<sup>252</sup> in order to satisfy the formative assessment cycle and convey the professor’s investment in the process. Without both “timely feedback and an opportunity to practice,” an assessment risks “merely serv[ing] as a means of ranking students.”<sup>253</sup> Because a particular concern among professors is having to increase their grading duties, it is important to note that wrappers should not be graded, and giving individual feedback is not required for the success of the assessment. However, it is important that students feel the professor has read the wrappers and that the class is provided with some form of feedback. This feedback can occur in a class setting or in individual meetings. Regardless of the format, however, feedback is what makes a formative assessment, formative. “Unlike summative assessments, where grading plays a central role, formative assessments emphasize feedback to both teacher and student.”<sup>254</sup> Formative assessment tools, such as exam wrappers, are “the most effective tools to improve student learning and performance in a course, in law school, and on the bar exam” specifically because they help “provide students the feedback they need to develop self-learning skills and improve performance in law school and beyond.”<sup>255</sup>

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251. Thompson, *supra* note 165, at 453.

252. *Id.* (noting that she returned the wrappers within “several days” and that the ability to do so may depend on class size and professor commitments).

253. Ramy, *supra* note 14, at 840 (citing Steve H. Kickles, *Examining and Grading in Law Schools*, 30 ARK. L. REV. 411, 426 (1977)); *see also* Lasso, *supra* note 17, at 89 (strongly recommending that feedback be provided in a reasonable timeframe, “soon” after the assessment or midterm takes place).

254. Ramy, *supra* note 14, at 844.

255. Lasso, *supra* note 17, at 106.

One reason self-assessment tools, such as exam wrappers, are valuable is because they provide students with two levels of feedback: first, the student's own evaluation of their study habits and exam performance as a result of being led through the wrapper prompts, and second, the feedback from the professor about what habits they observed among the class responses, and how students might modify their study habits as a result. The manner and amount of feedback given varied among those studied. Butzler (Chemistry) read the wrappers, provided feedback, and suggested different learning strategies.<sup>256</sup> Owen (Criminology) provides more detail on her feedback process. After giving students class time to complete their wrappers, Owen (Criminology) had them turn the wrappers in and dedicated 15 minutes at the start of the next class to discussing "areas of concern . . . identified as common across a majority of the students"<sup>257</sup> and also provided information about the effectiveness (or ineffectiveness) of particular study skills; Owen encouraged students to seek out further support from various academic resources on campus if needed.<sup>258</sup> In her third iteration of the exercise, Owen also implemented in-class peer feedback, as well as individual meetings between students and the professor during office hours.

In the legal education setting, both the feedback a student provides by means of responding to wrapper prompts, and the general feedback provided by the professor, are crucial. Early in law school, students need to be taught the essentials of assessment and need to be introduced to self-assessment. They need to assess their own work and then compare their assessment with that of their instructor. They need feedback on their ability to self-assess so that they can improve." Professors can provide assessment and feedback tools to help students self-assess and improve.<sup>259</sup> Many clinical and legal writing professors have been implementing self-reflective activities into their curriculum for decades, but this practice is not always mirrored across the law school curriculum.

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256. Butzler, *supra* note 179, at 12-14.

257. Owen, *supra* note 212, at 4.

258. *Id.*

259. Lasso, *supra* note 17, at 96.

Providing some form of feedback about the collected wrappers is non-negotiable, as it is for any effective formative assessment.<sup>260</sup> Individual feedback is ideal, and “the benefits of individualized feedback are particularly acute for students . . . who are in the bottom of their class or who arrive at law school with below-medium LSAT scores.”<sup>261</sup> However, in lieu of individual feedback, “aggregate (e.g. class or group-level) feedback is often a reasonable substitute.”<sup>262</sup> The lack of requirement that wrappers be graded saves a significant amount of time.<sup>263</sup> However, the need for giving at least some generalized, class-wide feedback remains. In so doing, professors should focus on trends they noted among the class responses (perhaps research assistants could assist in analyzing the returned wrapper data for further reduction of time commitment), and, in providing feedback, keep a focus on what next steps students can take to continue assessing and maximizing their study habits.

## 6. Repeated

Perhaps the most persuasive outcome of the various studies was the repeated finding that repetition of the wrapper exercise was greatly beneficial to students. This repetition could have been in the same class, or across multiple classes, but either way, it reinforced the legitimacy of the exercise and gave the

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260. George, *supra* note 42, at 189 (“[I]t is critical that students receive some feedback on the assessment in order for it to further their learning.”).

261. Daniel Schwarcz & Dion Farganis, *The Impact of Individualized Feedback on Law School Performance*, 67 J. LEGAL EDUC. 139, 174 (2017) (“[University of Minnesota Law School] students who receive individualized feedback in a single first-year law school class outperform students who do not in classes that they take jointly. This result rigorously confirms what much of the extant literature suggests—that providing students with individualized feedback designed to help them learn does indeed promote learning in law school. But it does much more than that. In particular, it shows that the positive impacts of individualized, formative feedback extend well beyond the classroom in which that feedback is given, helping students compete in all their other law school classes.”).

262. Lovett, *supra* note 22, at 21.

263. Carol Springer Sargent & Andrea A. Curcio, *Empirical Evidence that Formative Assessments Improve Final Exams*, 61 J. LEGAL EDUC. 379, 380 (2012) (“[G]rading multiple [formative] assessments may not be realistic given professors’ other commitments.”).



students an opportunity to hone both their metacognitive skills and whatever skills the original assessment required of them. This is consistent with Lovett's recommendation that when wrappers are provided across multiple exams, "students build a habit of mind to monitor their own learning, reflect on their study strategies, and make appropriate adjustments."<sup>264</sup> Not only did the repetition help students build habits, but it also helped students "see the value of the metacognitive skills promoted."<sup>265</sup> This seemed to be the case for students of Gezer-Templeton (Food Sciences): students' voluntary completion of the wrapper went up approx. twenty percent between exams, partially "because the previous exam wrapper helped them improve their score."<sup>266</sup>

Repetition of metacognitive practice is not only helpful for students, but addresses the common challenge of transferring knowledge, or implementing skills across classes.<sup>267</sup> Again, this is borne out in the broader research about implementing self-regulated learning. Soicher and Gurung (Psychology) echoed this sentiment in their findings, concluding that "[i]t may be the case that this type of metacognitive intervention needs to be adopted across departments where students are likely to take more than one course using it or the exam wrapper needs to be more engaging."<sup>268</sup>

This need for repetition is also consistent with research on developing self-regulated learners finding that in order to "become better self-learners, students must engage in a three

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264. Lovett, *supra* note 22, at 27.

265. *Id.* at 35.

266. Gezer-Templeton, *supra* note 7, at 34. The percentage of students who said they completed the exam wrapper because they thought it might be helpful in prepping for their next exam went up from between 45 and 56% the first time to more than 70% the second time; this repeated use "helped students appreciate this self-reflection tool as a means to improve not only their study habits, but also their exam scores." *Id.*

267. For an example, see Boyle, *supra* note 12, at 9 (quoting BRENDA H. MANNING & BEVERLY D. PAYNE, SELF-TALK FOR TEACHERS AND STUDENTS: METACOGNITIVE STRATEGIES FOR PERSONAL AND CLASSROOM USE, at xviii (1996)) ("Not all students who use self-regulating techniques do so for every subject . . . . [A] student may 'employ self-regulated learning strategies for mathematics, but not for language arts; before lunch, but not as much after lunch; at school, but not at home.' Thus, professors can expect a diversity of self-regulated learning taking place despite attempts to make it consistent.").

268. Soicher & Gurung, *supra* note 206, at 69.

phase cyclical process which includes the following steps: (a) planning; (b) implementation and monitoring; and (c) evaluation.”<sup>269</sup> The exam wrapper process straddles all three phases of the cycle and, when deployed more than once, more successfully completes the ongoing exchange between planning, implementation, and evaluation. For example, following a midterm, the wrapper process might begin in the “evaluation” portion of the cycle, reflecting on exam performance before moving forward to “plan” future study methods. Upon second use, the student will not only evaluate their exam performance, but also the success of their modified study approach. It is for this very reason that that SRL cycle is cyclical, as it is only through repetition that the student can fully internalize these self-monitoring processes.

As a final note, a number of professors across the studies offered small amounts of extra credit for satisfactory completion of the wrapper, finding that it promoted student engagement.<sup>270</sup> This may be a good way to encourage students to participate (particularly if it is the first time introducing the exercise) without turning the exercise into a graded assignment or penalizing those who decline to participate.

#### B. Proposal for Best Practices: Designing Your Own

With the backdrop of those considerations, the question becomes how to best design the wrappers themselves. For those law professors interested in creating exam wrappers for their classes, there are two general approaches to consider: one, a non-course specific wrapper focused broadly on study and exam taking skills, and two, a content-specific wrapper tailored to the course. Either format the professor chooses should be structured in three parts, mirroring Lovett’s broad questions posed to students: (a) how they prepared for exams, (b) what errors they made on the exam, and (c) what they might do differently to prepare for the next exam.<sup>271</sup>

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269. Lasso, *supra* note 17, at 93.

270. Butzler, *supra* note 179, at 12-14; Gezer-Templeton et al., *supra* note 7, at 34; Owen, *supra* note 212, at 4.

271. Lovett, *supra* note 22, at 18.

## Prompt 1: How They Prepared

Professors using wrappers prompted student reflection on study and exam prep techniques in a number of ways. The prompts fell into two general categories: either open ended questions about general preparation (“Approximately how much time did you spend preparing for this test? Did you prepare well enough for this test? y/n”) and/or a list of specific study techniques to choose from, for example:

What percentage of your test-preparation time was spent on each of these activities?

- a. Reading textbook sections for the first time
- b. Re-reading textbook sections
- c. Reviewing workbook or on-line exercises
- d. Reviewing your own notes
- e. Reviewing previous test
- f. Reviewing other class material
- g. Discussing course materials and questions with classmates, tutors, or the instructor
- h. Other

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The benefit of the first example (open-ended questions about general preparation) is that it allows students to write a broader reflection on their experience preparing for the exam, while the second (a list of study techniques, examples of which appear *supra* and also in Appendix Exhibits 1 (Q2), 2 (Q2), 3 (Q4), and 4 (Q4)) is useful for prompting students to think more specifically about what techniques they relied upon. The “hidden” benefit of the second, more detailed list is that not only are students forced to think about how they used their study time, but it’s also a way for professors to introduce students to a greater variety of study methods. The other benefit of the list

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272. Thompson, *supra* note 165, at 461-62. The same, or similar, questions appear in Lovett’s samples.

format is that in preparing feedback, it allows for the professor to gather more quantitative data. For example, a professor can say to the class, “In my review of your wrappers, I noticed that a significant majority of the students who performed well/felt prepared for the exam used more than three different study methods/completed practice questions in a timed setting.” This is also an opportunity for professors to comment on the limitations of certain study techniques, for instance, letting the class know that while re-reading textbook sections or notes is a popular form of review and has its place, it also poses the risk of a false sense of comfort with the content.

#### Prompt 2: The Exam Taking Experience and Performance

Prompts around the exam-taking experience and subsequent performance can focus either on content (doctrinally specific) (Appendix Exhibit 1 (Q4)), the style of question (multiple choice, most/least likely, short answer), the specific types of errors made (Exhibit 2 (Q3)), or some combination thereof. These can assist students in assessing whether they struggled with a certain topic, a particular style of question, or both. Professors often note that students will say they struggle with a specific style of question (often multiple choice) when deeper probing reveals their real challenge is with the content; skillfully crafted wrapper questions might help the student uncover this misconception.

For prompts asking the students to reflect on the types of questions, the response options might be general (“How many problems did you get wrong because of close reading? Because of lack of knowledge on topic?”) or more tailored to the class (“How many problems did you get wrong about negligence? Battery? Assault?”) Some professors prefer a question-by-question analysis (“Did you get #1 wrong? If so why?”), while others do a percentage breakdown (“What percentage of points did you miss due to not carefully reading the question?”)<sup>273</sup> Decisions around how to pose questions specific to exam performance may depend on whether the professor has time to draft a new wrapper for each exam or class (versus creating a standard one that can be

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273. See *infra* Appendix: Exhibit 1.

used in a variety of settings), as well as whether the professor is particularly curious about students' ability to grasp particular ideas. For instance, if a professor finds that students struggle each year with the parole evidence rule, perhaps they would include a question on their wrapper specifically about it to gauge student understanding of and performance on the topic.

Finally, I suggest adding in a question about exam experience that allows for students to self-assess and report on whether they experienced impediments to exam success such as panic attacks, distraction, or running out of time. These are critical to student exam performance, and identifying them as part of the success or failure of an exam experience might prompt students to discuss these issues with academic support or the office of the dean of student affairs, where they can receive information about services including mediation, mindfulness, counseling, and even medication or accommodations as needed.

### Prompt 3: What they Might do Differently in the Future

The final phase of any exam wrapper should foster a growth mindset by encouraging the student to take concrete steps towards improved performance. This means not only assisting the student in identifying the weaknesses, successes, or challenges in their study and exam-taking experience, but also supporting their making concrete and realistic plans for moving forward. This "planning" portion is critical for completion of the SRL cycle, as well as for cultivating a growth mindset. Achacoso, for instance, asks students "if they would make any changes in strategies or perhaps in the amount of time they will spend studying for the next exam. Asking this question helps students find the appropriate attribution for their performance . . . [I]f students believe they have control over the outcome, they are more likely to be motivated to make a change."<sup>274</sup> The wrappers drafted by Thompson (Spanish) required students to make "a list of changes to implement in preparation for the next test."<sup>275</sup>

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274. Achacoso, *supra* note 13, at 118.

275. Thompson, *supra* note 165, at 453 ("The first four questions, completed just prior to receiving their graded test, asked students to report the time they spent preparing for the test, their methods of preparation, and their predicted test grade. After reviewing their graded test, students completed

Lovett includes the following:<sup>276</sup>

Based on your responses to the questions above, name 3 things you plan to do differently in preparing for the next exam. For instance, will you just spend more time, change a specific study habit (if so, name it), try to sharpen some other skill (if so, name it), use other resources more, or something else?

Students get pushed to go beyond simply “study more,” and to use the information they have self-reported about their study techniques to modify their approach to the course. This is also an ideal time to include a note encouraging them to discuss this study plan by scheduling an appointment with academic support, giving them yet another resource for their ongoing legal education journey.

*In Summary*

At its simplest, an exam wrapper could perhaps merely post Lovett’s three questions. However, customizing a wrapper to a course or exam provides an incredible opportunity to tailor the tool to a class, and to introduce new study techniques through how questions are posed. If a professor is considering changing their teaching techniques for a topic that students find particularly challenging, those potential modifications should be taken into account when drafting a wrapper. Working with the law school’s academic support program or the university’s teaching center (if the professor is fortunate enough to work for an institution with either or both of them) can provide more in-depth information around best practices, and perhaps even assistance with analyzing the results. As with any new tool, the first semester of implementation may require the most time investment, but many wrappers can be used repeatedly in semesters thereafter with little change.

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three additional reflection questions, including a categorization of their mistakes.”).

276. *See infra* Appendix: Exhibit 2.

## C. Challenges and Promise

### 1. Potential Challenges

#### Professor Buy-In

Implementation of formative assessment tools such as exam wrappers in 1L classrooms will, of course, only be successful if those professors are persuaded of wrappers' efficacy and having an appropriate place in their course.<sup>277</sup> ABA requirements around documenting learning outcomes certainly provide some motivation.<sup>278</sup> However, undoubtedly the number one concern expressed by professors around increased assessments or suggestions of increased skills instruction is time—both the in-class time required as well as any out-of-class time set aside for reviewing exercises or meeting with students.<sup>279</sup> Given the large size of most 1L classes and the various demands placed on professors, this is an understandable concern.<sup>280</sup>

There is no arguing that including a self-assessment activity in class, and providing even brief feedback, takes some time away from substantive coverage.<sup>281</sup> How much time depends on

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277. Montiel, *supra* note 54, at 250 (arguing “use of formative assessment can be perceived as a burden on professors in large doctrinal classes”).

278. ABA STANDARDS, *supra* note 63, ch. 3, standards 301, 302, 314.

279. Duhart, *supra* note 18, at 537 (“The use of new and different assessment methods is often last on the list for many faculty. Giving one major test at the end of the semester is simply more effective.”).

280. Beth McMurtrie, *Many Professors Want to Change Their Teaching but Don't. One University Found Out Why.*, CHRON. HIGHER. EDUC. (Mar. 21, 2019), <https://www.chronicle.com/article/Many-Professors-Want-to-Change/245945>. This is true across disciplines: a recent study of 300 faculty members in STEM disciplines confirmed that a lack of time generally was the top obstacle preventing them from adopting new, active-learning teaching practices. *Id.*

281. Andrea A. Curcio, *Moving in the Direction of Best Practices and The Carnegie Report: Reflections on Using Multiple Assessments in a Large-Section Doctrinal Course*, 19 WIDENER L.J. 159, 172 (2009) (“[W]e sacrificed some substantive coverage in order to engage in the assessments and feedback.”).

the implementation of the wrappers: in Phase 2 of Owen's (Criminology) study, she provided only generalized group feedback to students as a class; however, in Phase 3, she committed more in-class time (via peer feedback) and more out-of-class time (via individual meetings).<sup>282</sup> In recognition of this time commitment, Owen suggests one alternative option might be to move some of the assessment activities outside of class in online form, but she acknowledges that use of an online platform might impact the efficacy of the wrappers.<sup>283</sup>

In some contrast, Thompson (Spanish) notes that teaching students to pay "attention to self-monitoring practices . . . did not require hours of time or the elimination of large portions of course content."<sup>284</sup> Encouragingly, Thompson argues that even relatively brief reflection activities like exam wrappers or a brief in-class discussion around study strategies "can promote more frequent use of self-monitoring skills with little change to the course structure or schedule."<sup>285</sup> The recommendations of Lovett, along with the findings of the various studies, indicate that, at a minimum, two short periods of in-class time should be dedicated to the wrappers: the introduction of the wrappers and their purpose and, in the following class, minimal group feedback to the class about common issues (e.g., overuse of re-reading as the sole study method), possible solutions (e.g., how to use practice problems to study), and potential next steps (e.g., where to find practice problems and how to make an appointment with academic support faculty and staff to review them). All in all, this may account for twenty to thirty minutes of class time, split over two class periods.

Professor reluctance to use wrappers may also arise if there is concern that taking time away from "what's on the final" will result in negative student evaluations.<sup>286</sup> Professors may also

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282. Owen, *supra* note 212, at 3-4, 7 (acknowledging challenges of making time not only to implement wrappers but also to explain metacognition and offer suggestions, plus meeting outside of class).

283. *Id.* at 7.

284. Thompson, *supra* note 165, at 457.

285. *Id.*

286. See Flaherty, *supra* note 235 (quoting statement of Tarren J. Shaw) ("[F]aculty members . . . 'can be reluctant to make changes in the way we teach, especially if changes result in negative feedback from students on teaching evaluations.'").



feel hesitant as a result of their own unfamiliarity with the science of teaching and learning: “[d]espite the unique opportunities law professors have to guide their students’ learning strategies, we often steer clear of endorsing specific learning strategies with students because our expertise lies in teaching legal doctrine rather than psychological principles of good learning.”<sup>287</sup>

In addition to concerns around time and ability to teach these methods, professors may also be deterred by the understanding that increased focus on teaching and assessment will go unrewarded during faculty and tenure review. Among the 300 STEM faculty members recently surveyed, the second obstacle to implementing innovative teaching techniques was “tenure-and-promotion guidelines, which emphasize research over teaching[.]”<sup>288</sup> Some in legal education have observed that the “result of law faculty’s heavier commitment to scholarship is decreased time for teaching and student support, leaving precious little time in the work day to work individually with students,”<sup>289</sup> with others noting more explicitly that “[i]n theory, of course, we all have a three-part duty: to teach, to write, and to serve our community. Off the record, however, we all admit that tenure, salary, academic rank, and professional mobility depend much more on scholarship than on effectiveness in teaching.”<sup>290</sup> This concern can truly only be alleviated by administrator buy-in.

### Administrator Buy-In

At most institutions of higher education, administrator assessment of professorial efficacy is traditionally based on scholarly performance and student evaluations. As a result, some law professors have expressed concern that teachers who invest energy and time in non-classroom student learning act at their own “expense” due to the lack of credit or reward for doing

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287. Bloom, *supra* note 35, at 119.

288. McMurtrie, *supra* note 282, at 2.

289. Marlow, *supra* note 29, at 493.

290. *Id.* (quoting Dennis R. Honabach, *Precision Teaching in Law School: An Essay in Support of Student-Centered Teaching and Assessment*, 34 U. TOL. L. REV. 95, 99 (2002)).

so.<sup>291</sup> However, more and more law schools are placing an increased value on teaching. Again, the ABAs requirements around learning outcomes and assessment may provide motivation to administrators to implement activities that foster self-assessment. Further, recognizing that “[a]n important part of becoming a good teacher is learning how to conduct valid, reliable, and pedagogically meaningful assessments,” some legal educators persuasively have argued that any law school “committed to its students’ learning should mandate that all teachers receive training in assessment theory and practice, and provide support for them to do so.”<sup>292</sup> For professors to truly embrace their role in teaching all kinds of learners, “administrators will need to step in to reward faculty for good teaching.”<sup>293</sup> This may be done by increased consideration of faculty teaching during reviews, encouragement of fellowships or scholarships for professors seeking professional growth through teaching conferences, and acknowledgement of the legitimacy of scholarship on teaching and learning as a valid area of research and writing. Without robust administrative and community support, many professors will continue to chafe at the suggestion of increasing their assessment and feedback commitments.

### Student Buy-In

Of course, faculty members are only one party to these in-class activities: student buy-in is also an important factor in ensuring a successful assessment. Students are not always

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291. Susan Sturm & Lani Guinier, *The Law School Matrix: Reforming Legal Education in a Culture of Competition and Conformity*, 60 VAND. L. REV. 515, 533 (2007).

292. Lasso, *supra* note 17, at 99. For example, “law schools should provide summer ‘teaching grants’ that provide the same level of compensation as summer research grants. This would permit teachers to develop effective assessment programs that can become an integral part of their teaching.” *Id.*

293. Marlow, *supra* note 29, at 505 (“Teaching to individuals is one of the reasons academic support programs have achieved success in law schools. If we are going to reach every student, all law faculty will have to step up to the plate and begin working towards teaching to all kinds of learners, with varying abilities. And when faculty step up, administrators will need to step in to reward faculty for good teaching. Currently, traditional faculty have no motivation to improve their teaching with the emphasis on scholarship.”).

enthusiastic about curricular innovation— “[a]fter all, taking notes during a lecture is arguably less demanding than engaging in more active learning.”<sup>294</sup> Innovations around active learning may indeed require a particularly high level of student investment, since “we need students to be on board and engaged for this type of instruction to be effective.”<sup>295</sup> While “it is relatively easy to teach students the skills involved in self-regulated learning,” it is “quite challenging to convince students that self-regulated learning is worth their time and effort.”<sup>296</sup> Law students have been encouraged to focus on quantitative assessments such as class rank and GPA in order to solidify summer jobs and post graduate employment, so it can take some effort to help them see the ultimate connection between “soft skills” and professional success.

Another barrier to student endorsement of self-assessment techniques may be a common misunderstanding about the solitary nature of self-assessment, including concern that an emphasis on the students’ role will lead students to feel they cannot seek assistance. However,

[c]ontrary to a commonly held belief, self-regulated learning is not asocial in nature and origin . . . In fact, self-regulated students seek out help from others to improve their learning. What defines them as ‘self-regulated’ is not their reliance on socially isolated methods of learning, but rather their personal initiative, perseverance, and adoptive skill. Self-regulated students focus on how they activate, alter, and sustain specific learning practices in social as well as solitary contexts.<sup>297</sup>

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294. Flaherty, *supra* note 235.

295. *Id.* at 4.

296. SCHWARTZ ET AL., *supra* note 60, at 90; *see also* McMurtrie, *supra* note 282, at 3 (“Sturtevant and Wheeler also found plenty of frustrations with students. Instructors say that students often haven’t prepared for class, or resist active learning. Other barriers include a lack of training in active-learning techniques for teaching assistants and large class sizes.”).

297. Zimmerman, *supra* note 19, at 69-70.

Regardless of the root of the hesitation, student buy-in will likely not occur in one semester alone. A recent study found that while initial introduction of active learning techniques may meet resistance, repeated exposure to new teaching and learning techniques yielded student investment. The study's authors "determined that buy-in did increase with each successive cohort—in part because students increasingly linked certain aspects of the course to their learning gains in surveys."<sup>298</sup> While "[s]tudent resistance was highest in the first year . . . by the end of the fourth year, it was significantly reduced."<sup>299</sup> Students depend on faculty to make wise decisions about the skills they need to learn, regardless of whether such an investment always feels worthwhile immediately. The benefits of teaching law students self-assessment and other metacognitive skills are significant enough to push through some initial resistance, and to convince students of the role self-regulated learning and self-assessment will play in their legal education and beyond.

## 2. Potential Promise

### Better Study Skills and Improved Ability to Accurately Self-Assess

Perhaps the most hopeful aspect of implementing exam wrappers across the law school curriculum is the promise of improving students' study skills, including introducing them to previously unknown or underutilized study skills. Across all four courses Lovett studied, the majority of students reported having made specific changes in their approach to studying, as well as recognizing the value of having made these changes.<sup>300</sup> Butzler similarly found—in response to the qualitative research question, "How do students perceive the impact of the self-regulated tools on learning chemistry?" —that "[m]ost students loved the exam wrappers. Several students reported that they would have not thought of many of the strategies listed on the exam wrappers to prepare for exams" and that they would

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298. Flaherty, *supra* note 235.

299. *Id.*

300. Lovett, *supra* note 22, at 33-34.

“continue to use. . . exam wrapper strategies in future classes.”<sup>301</sup> These findings reflect not only a change in study skills, but an increased awareness of consciously choosing study techniques and assessing their efficacy. Encouragingly, Gezer Templeton et al. also found that wrappers increased skills corresponding to “an overall improved metacognitive knowledge.”<sup>302</sup>

These improved study habits and metacognitive self-knowledge manifest concretely in more accurate student self-assessment. Thompson found a clear improvement in the ability of students to accurately predict their test scores using exam wrappers.<sup>303</sup> Consistent with Dunning-Kruger’s proposition regarding miscalibration, on the first exam wrappers they completed, students with the highest grades underestimated their performance, while students with the lowest test scores “significantly overestimated their performance.”<sup>304</sup> However, after a second use of the wrappers, students improved their ability to accurately predict their exam results, “a skill shown to help students connect their study efforts with levels of actual achievement.”<sup>305</sup>

#### Improved Performance on Summative Assessments (Final Exams)

Professors and students alike may reap the benefits of well-written and well-organized final exams as a result of formative assessments given with supporting opportunities for self-assessment. Both anecdotal and empirical reports by law professors have found that final exams improved with additional formative assessments, such as midterms.<sup>306</sup> One study found that students who “merely participated in formative assessment, regardless of the level of success they experienced, were more successful in summative assessment, because the act

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301. Butzler, *supra* note 179, at 21.

302. Gezer-Templeton et al., *supra* note 7, at 36.

303. Thompson, *supra* note 165, at 457.

304. *Id.* at 455.

305. *Id.*

306. Corrada, *supra* note 6, at 320 (“Although based on purely anecdotal observations in my classes, final exams in a class with a midterm are better than final exams in classes without midterms.”).

of participation enabled them to receive feedback about their learning process, which propelled improvement.”<sup>307</sup> Subjectively, law professors who have implemented multiple formative assessments have reported that “the depth and quality of the students’ questions before this test were better than those [they] usually see during the final exam period.”<sup>308</sup>

In studying exam wrappers in the classroom, Thompson (Spanish) concluded that while the data was not sufficient to show whether the use of exam wrappers was responsible for increased self-monitoring, “they did suggest that explicit approaches to metacognitive skills training are effective and that students who possess stronger metacognitive skills tend to perform better on tests.”<sup>309</sup> Gezer-Templeton et al. were unable to conclusively determine the exact role wrappers played in student exam scores, calling it “a complex puzzle to be solved.”<sup>310</sup> Lovett acknowledges that future research into the efficacy of exam wrappers would ideally incorporate students’ actual grades on exams and other “direct performance measures.”<sup>311</sup>

### The Opportunity to Improve Teaching

“Good feedback also helps guide the instructor.”<sup>312</sup> Exam wrappers provide not only a learning opportunity for students, but for instructors as well. Relying solely on final exams not only deprives students of the opportunity to correct bad patterns, but also makes it “difficult for teachers to gauge their effectiveness in the classroom. Without the feedback that more frequent formative assessments can provide, teachers are left to guess at whether students are meeting the course goals and learning objectives.”<sup>313</sup> Indeed, professors often “learn the most about how to improve our teaching by working with students

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307. Bloom, *supra* note 7, at 233. Bloom continues that “[t]he few studies conducted in the law school setting have also demonstrated that formative assessment opportunities improve ultimate performance for the majority of students.” *Id.*

308. Curcio, *supra* note 283, at 165.

309. Thompson, *supra* note 165, at 457-58.

310. Gezer-Templeton et al., *supra* note 7, at 35.

311. Lovett, *supra* note 22, at 38.

312. Niedwiecki, *supra* note 18, at 179.

313. Ramy, *supra* note 14, at 837-38.

who do not initially succeed with our methods,”<sup>314</sup> and use of class-wide tools such as exam wrappers may provide exposure to a greater variety of students than might otherwise seek out office hours or professor feedback.

Self-assessment exercises provide “the professor with insight into the student’s thought process and work habits that would not be apparent from the professor’s review of the student memo alone.”<sup>315</sup> In fact, “incorporating self-assessments into a course” is the most effective way to understand student thinking.<sup>316</sup> With regard specifically to exam wrappers, Thompson also noted the impact of this work on his own teaching, writing that these inquiries into student learning “led to both instructional improvements and a stronger design and method of investigation” and concluding that the “results of this classroom research project were encouraging both in regard to students’ thinking about their learning. . . and to my own ability to improve instruction through systematic study of how students learn in my classes.”<sup>317</sup>

#### Shift of Energy Output from Professor to Students

While exam wrappers require a certain amount of effort from professors before and after classes, professors may be pleased to find that there is some “return” in the form of students playing a larger and more active role in class. Noting the “fatigue” many professors experience at the end of class, Professor Robin Boyle notes that in many classrooms, “[t]here seems to be high-energy output on the part of professors, with moderate learning results. The energy expenditure needs to shift from professor to student for an active learning experience, producing a more effective use of class time and higher student performance.”<sup>318</sup> Boyle notes that this shift in energy “comports

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314. Marlow, *supra* note 29, at 506.

315. *Id.* at 253.

316. Niedwiecki, *supra* note 18, at 182 (explaining that “[w]ithout understanding the internal thinking of the students, the professor is unable to correct any process errors.”).

317. Thompson, *supra* note 165, at 458.

318. Boyle, *supra* note 12, at 2 (quoting Vernellia R. Randall, *Increasing Retention and Improving Performance: Practical Advice on Using Cooperative Learning in Law Schools*, 16 T.M. COOLEY L. REV. 201, 213 (2000)) (“[L]aw

with the definition of ‘metacognition’ that is provided by various researchers in the psychology field.”<sup>319</sup> Faculty can increase student engagement in a variety of ways, including by intentionally “designing assessments that encompass an optimal level of challenge, and supplying timely and rich feedback” —two potential strengths of exam wrappers.<sup>320</sup> Ultimately, giving the student a larger role the course, including through self-assessment tools, can lead to more empowered students, who may shoulder more of the responsibility for learning tasks in and outside of the classroom:

To explicitly require the student to consider how he can perform better on the next learning task, the Self-Assessment Assignment requires the student to explain how he will avoid in [the] future. . . problems that he identified at the attribution stage. The student is empowered by knowing that he will begin the next learning task armed with a better strategy than he had when he began the previous task. By self-assessing, rather than by being assessed by a professor, the student can internalize the skills learned; thus, the student is more likely to transfer those skills to new. . . assignments in the. . . course or even to different courses.<sup>321</sup>

#### Strengthened Partnership between Doctrinal and ASP

An additional benefit of exam wrappers is the potential for increased partnerships between doctrinal professors and those working in a law school’s academic support program (“ASP”). As both a means of providing expertise, reaching more students with our services, and assisting doctrinal professors with the

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professors must put more of our effort into creating the conditions within which students can construct their own meaning and develop their own skills. Students will need to do this through their own cognitive structures.”).

319. *Id.* at 7.

320. Austin, *supra* note 58, at 674 (explaining that “providing clear expectations, facilitating active and collaborative learning activities, designing assessments that encompass an optimal level of challenges, and supplying timely and rich feedback” can increase student engagement).

321. Montiel, *supra* note 54, at 264-65.



time demands of greater assessments, many academic support faculty and staff are ideally qualified to assist with wrappers in a variety of ways. For example, ASP faculty could work with their doctrinal colleagues to develop the wrappers themselves, review the results of the wrappers, and work one-on-one with students who request further help examining their study skills or implementing changes. It is a bittersweet result that “the upsurge in [dedicated academic support] programs has caused an interesting division of labor in law schools, with academic support professionals bearing primary responsibility for assisting struggling law students.”<sup>322</sup> Indeed, some feel that “[a]cademic support programs are tolerated and supported by law schools because...they free the doctrinal faculty from having to assist weaker students.”<sup>323</sup> However, there is a role for all professors in working with struggling and successful students alike, and a role in every class for strengthening study and exam-taking skills.

### Humanizing Law School

Finally, exam wrappers can help in the push to humanize legal education. Much has been written on the humanizing legal education movement over the last three decades.<sup>324</sup> Many scholars have enumerated the reasons why legal education would benefit from “humanizing efforts,” including “improving student learning,...creating an environment less psychologically harmful to students, and...providing an environment more open to female law students and students of color.”<sup>325</sup> One key aspect of this humanization is mitigating “the negative impact of the one-size-fits-all tendency of the rest of the law school environment” and, further, helping students develop

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322. Marlow, *supra* note 29, at 491.

323. Ellen Yankiver Suni, *Academic Support at the Crossroads: From Minority Retention to Bar Prep and Beyond—Will Academic Support Change Legal Education or Itself be Fundamentally Changed?*, 73 UMKC L. REV. 497, 506 (2004).

324. Schulze, *supra* note 134, at 289 (“The humanizing legal education movement likely had its genesis in 1986 when Andrew Benjamin first documented the role of legal education in psychologically harming its students.”).

325. *Id.* at 294.

their own plan for learning.<sup>326</sup> This is done in many academic support programs through one-on-one work with students that allows professors to focus “on the student’s learning as an individual, not just another member of the herd who should be able to learn in the exact same way as the other students in her section.”<sup>327</sup> By providing feedback—“both positive and constructively negative—to struggling students,” academic support programs convey “the law school’s sincere dedication to its students’ success.”<sup>328</sup>

Exam wrappers allow for this to occur in the doctrinal classroom as well, by acknowledging that students use a variety of study skills and allowing students to individually determine which ones are most successful. The use of self-assessment tools indicates a trust in students, and an investment in skills that transfer from class to class. This is consistent with one of the principles of humanizing law school that emphasizes that professors should teach “students, not subjects.”<sup>329</sup> This “student-centered educational model” trains “students how to teach themselves, teaching students to discern their preferred learning style, . . . and training students to reflect consciously about what it means to be an ethical and moral lawyer.”<sup>330</sup> Exam wrappers help students understand themselves as learners and, eventually, as lawyers.

## VI. Conclusion

It is incumbent upon law schools to graduate not only prepared lawyers, but also exceptional lifelong learners. To achieve this aim, professors must help students develop into self-regulated learners who seek feedback, pursue improvement, and take ownership of their education.<sup>331</sup> The inclusion of exam

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326. *Id.* at 312.

327. *Id.* at 313.

328. *Id.*

329. *Id.* at 291.

330. Schulze, *supra* note 134, at 291-92.

331. Bloom, *supra* note 35, at 117 (“[I]t is not too late to help our students alter the course of their educational outcome. Law professors need to understand and then convince our students that law school provides a blank slate for them to develop as exceptional learners, regardless of their previous knowledge and level of educational success.”).

wrappers into the law school curriculum offers all professors the opportunity to foster this growth mindset. In doing so, law schools can produce graduates who are accurate in assessing themselves as ready to practice.

## Appendix A: Examples of Exam Wrappers

Exhibit 1: Lovett Physics Wrapper

Exhibit 2: Lovett Chemistry Exam Wrapper

Exhibit 3: Thompson Post-Test Reflection Exercise

Exhibit 4: Soicher & Gurung Psychology Exam Wrapper

Exhibit 5: Schendel Template for Designing an Exam Wrapper

## Exhibit 1: Lovett Physics Wrapper

33-111 Physics Post-Exam Reflection

Name: \_\_\_\_\_

As with the first exam, this activity is designed to give you a chance to reflect on your exam performance and, more importantly, on the effectiveness of your exam preparation. Again, please answer the questions sincerely. Your responses will be collected to inform the instructional team; they will have no impact on your grade.

1. Approximately how much time did you spend preparing for this exam? \_\_\_\_\_
2. What percentage of your test-preparation time was spent in each of these activities?
  - a. Reading textbook section(s) for the first time \_\_\_\_\_
  - b. Re-reading textbook section(s) \_\_\_\_\_
  - c. Reviewing homework solutions \_\_\_\_\_
  - d. Solving problems for practice \_\_\_\_\_
  - e. Reviewing your own notes \_\_\_\_\_
  - f. Reviewing materials from blackboard \_\_\_\_\_  
(What materials? \_\_\_\_\_)
  - g. Other \_\_\_\_\_  
(Please specify: \_\_\_\_\_)
3. What aspect(s) of your preparation for this exam seemed different from your exam 1 preparation? Did these changes have any effect? \_\_\_\_\_
4. Now that you have looked over your graded exam, estimate the percentage of points you lost due to each of the following (make sure the percentages add up to 100):
  - a. Trouble with vectors and vector notation \_\_\_\_\_
  - b. Algebra or arithmetic errors \_\_\_\_\_
  - c. Problem with force-body diagram \_\_\_\_\_
  - d. Lack of understanding of the concept \_\_\_\_\_
  - e. Not knowing how to approach the problem \_\_\_\_\_
  - f. Careless mistakes \_\_\_\_\_
  - g. Other \_\_\_\_\_  
(Please specify: \_\_\_\_\_)
5. Students sometimes have difficulty drawing appropriate force-body diagrams and applying Newton's second law appropriately. Was either of these a difficulty for you (check question 2 on the exam)? If so, try to self-assess your understanding: Identify what aspect of these skills are causing you difficulty and what you can do to improve your ability to solve problems using these skills. \_\_\_\_\_

PLEASE CONTINUE ON THE BACK ON ANY QUESTION WHERE YOU NEED MORE ROOM.

For more information on using exam wrappers in your course or for help in designing an exam wrapper handout, please contact Dr. Marsha Lovett, Associate Director, Faculty Development, Eberly Center for Teaching Excellence.  
<http://www.cmu.edu/teaching/eberly/index.html>



## Exhibit 3: Thompson Post-Test Reflection Exercise

**APPENDIX B***Spanish 201 Posttest Reflection Exercise*

Name \_\_\_\_\_

This activity is designed to help you reflect on your test performance and, more important, on the effectiveness of your test preparation. Please answer the questions honestly. Your responses will be collected to improve teaching and learning in this course. They will have no impact on your grade.

1. Approximately how much time did you spend preparing for this test? \_\_\_\_\_
2. After taking the test, what grade did you expect to earn? (approximately what %) \_\_\_\_\_ %
3. Did you prepare well enough for this test? \_\_\_\_\_ yes \_\_\_\_\_ no
4. What percentage of your test-preparation time was spent in each of these activities?
  - a. Reading textbook sections for the first time \_\_\_\_\_ %
  - b. Re-reading textbook sections \_\_\_\_\_ %
  - c. Reviewing workbook or on-line exercises \_\_\_\_\_ %
  - d. Reviewing your own notes \_\_\_\_\_ %
  - e. Reviewing previous tests \_\_\_\_\_ %
  - f. Reviewing other class material \_\_\_\_\_ %  
(Which materials? \_\_\_\_\_ )
- 462
- FALL 2012
- g. Discussing course materials and questions with classmates, tutors, or the instructor \_\_\_\_\_ %
- h. Other (Please specify below) \_\_\_\_\_ %  
\_\_\_\_\_
5. After you have looked over your graded test, estimate the percentage of points you lost due to each of the following (percentages should add up to 100%).
  - a. From careless mistakes \_\_\_\_\_ %
  - b. From not knowing appropriate vocabulary \_\_\_\_\_ %
  - c. From not knowing correct verb conjugations \_\_\_\_\_ %
  - d. From not understanding concepts \_\_\_\_\_ %
  - e. From not being able to apply concepts in new situations \_\_\_\_\_ %
  - f. From other reasons (Please specify below) \_\_\_\_\_ %  
\_\_\_\_\_
6. Based on your responses to the questions above, describe at least three things that you plan to do differently in preparing for the next test. For instance, will you spend more time studying, change a specific study habit, or try a new one? Some other strategy? Please be specific in your descriptions.
  - a.
  - b.
  - c.
7. What can the instructor do to support your learning and your preparation for the next test?

## Exhibit 4: Soicher &amp; Gurung Psychology Exam Wrapper

**Appendix 1: Exam wrapper**

Please complete the following questions regarding your exam performance. Please provide sincere and honest responses. The goal is to help you reflect on your exam preparation and performance.

- (1) How did your actual score compare to how you thought you did on the exam after taking it?
- (2) How did this exam score compare to your last exam score? (Higher, about the same, lower)
- (3) Approximately how much time did you spend preparing for this exam? Please give a best estimate in hours, do not use ranges (e.g., 3.5 not 3-4). \_\_\_\_\_
- (4) What percentage of your test-preparation time was spent in each of these activities? (The total should equal 100%)
  - (a) Reading the textbook for the first time \_\_\_\_\_%
  - (b) Re-reading the textbook \_\_\_\_\_%
  - (c) Reviewing class notes \_\_\_\_\_%
  - (d) Reviewing in-class activities \_\_\_\_\_%
  - (e) Self-quizzing/testing \_\_\_\_\_%
  - (f) Other (please specify): \_\_\_\_\_%

Continues on back side.

- (5) After looking over your exam, estimate the percentage of points you lost due to each of the following (*make sure the percentages add up to 100*):
  - (a) Lack of understanding of the concept \_\_\_\_\_%
  - (b) Not understanding what the question was asking \_\_\_\_\_%
  - (c) Careless mistakes \_\_\_\_\_%
  - (d) Not being able to apply concepts in new contexts \_\_\_\_\_%

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- (e) Not recognizing that information or ideas were important \_\_\_\_\_%
- (f) Other (please specify): \_\_\_\_\_%

- (6) Based on your responses to the questions above, name at least three things you plan to do differently in preparing for the next exam. For instance, will you just spend more time studying, change a specific study habit or try a new one (if so, name it), prioritize studying, try to sharpen some other skill (if so, name it), or something else?



## Exhibit 5: Schendel Template for Designing an Exam Wrapper

**Law School Exam Wrapper Template**<sup>332</sup>

**Prompt** (What do you want to tell students about the purpose of this self-assessment exercise?)

**Looking Back I: Studying** (What do you want to ask students to assess regarding their exam preparation?)

- 1.
- 2.
- 3.

**Looking Back II: The Exam Experience** (What do you want to ask students to assess regarding their exam taking experience and/or performance?)

- 1.
- 2.
- 3.

**Looking Forward** (How do you want students to respond to their performance and make changes as needed? What are the next steps they should take?)

- 1.
- 2.
- 3.

**Last Note** (What message do you want the students to take away from this exercise?)

*Remember! The best exam wrappers are:*

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- One page
  - Done during class time
  - Collected by professors
  - Reviewed in class
  - Done more than once during the semester
- 

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332. Developed and presented at AASE 2018 by Sarah J. Schendel, Assistant Professor of Academic Support, Suffolk University Law School